Phase Transition Enthalpy Measurements of Organic and Organometallic Compounds and Ionic Liquids. Sublimation, Vaporization, and Fusion Enthalpies from 1880 to 2015. Part 2. C_{11}–C_{192}

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The second part of this compendium concludes with a collection of phase change enthalpies of organic molecules inclusive of C_{11}–C_{192} reported over the period 1880–2015. Also included are phase change enthalpies including fusion, vaporization, and sublimation enthalpies for organometallic, ionic liquids, and a few inorganic compounds. Paper I of this compendium, published separately, includes organic compounds from C_1 to C_{10} and describes a group additivity method for evaluating solid, liquid, and gas phase heat capacities as well as temperature adjustments of phase changes. Paper II of this compendium also includes an updated version of a group additivity method for evaluating total phase change entropies which together with the fusion temperature can be useful in estimating total phase change enthalpies. Other uses include application in identifying potential substances that either form liquid or plastic crystals or exhibit additional phase changes such as undetected solid–solid transitions or behave anisotropically in the liquid state. © *2017 AIP Publishing LLC for the National Institute of Standards and Technology.* [http://dx.doi.org/10.1063/1.4970519]

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1. Introduction

This compendium completes a previous report published in 2016 [2016ACR/CHI] on phase change enthalpies. Paper I of this compendium includes over 6600 organic compounds containing from one to ten carbon atoms published over the period of 1880–2015. [2016ACR/CHI] Paper II of this series contains over 7400 entries covering phase change enthalpies of organic compounds varying from eleven to one hundred ninety two carbon atoms, organometallic, and some inorganic compounds and ionic liquids. Many of these properties are freely available online [http://webbook.nist.gov/chemistry/ and http://trc.nist.gov/thermolit/]. As noted previously, a goal of this publication is to provide direct access to an entire collection of experimental phase change enthalpies that can be searched electronically. Additionally, some estimation methods and the use of various simple relationships for temperature adjustments of phase change enthalpies have been described and updated in Paper I. Paper II summarizes and updates a group method for estimating total phase change entropies. Uses include estimation of approximate fusion enthalpies and identification of potential substances exhibiting atypical behavior in either the solid or liquid state. Both the relationships and the estimation methods have proven useful to the authors.

2. Phase Change Enthalpies

Sublimation, vaporization, and fusion enthalpies are related to each other by Eq. (1) provided temperature T for all three terms is the same. Estimation methods for each of these three terms have been developed but vary significantly in their accuracy. Numerous general methods for estimating vaporization enthalpies, some quite simple, have been developed and their degree of accuracy for many substances has been approaching the experimental uncertainty of the measurements.

$$\Delta_{sub}H_m(T) = \Delta_v H_m(T) + \Delta_{fus}H_m(T) \quad (1)$$

Estimations of sublimation and fusion enthalpies are more problematic, primarily because of the difficulties in estimating fusion enthalpies accurately. Group additivity methods, widely successful in estimations of many other thermochemical properties, frequently falter in estimation of fusion enthalpy because of dynamics, the structural complexity of the solid state, or nonisotropic behavior of the liquid phase. The occurrence of polymorphism, solid–solid phase transitions, plastic and liquid crystalline behavior, and formation of anisotropic liquids while each of relatively low probability are unpredictable, and combine together to produce significant difficulties in developing a successful estimation method for both fusion and sublimation enthalpy.

2.1. Total solid–liquid phase change entropies

An approach that has been taken to address the estimation of fusion enthalpy has focused initially on estimating entropy rather than enthalpy since the occurrence of solid–solid transitions are among the most common and these generally occur isothermally; many have also been measured. The thermodynamic function that was subjected to a group additivity approach was estimation of the total molar phase change entropy, ΔS_{tpce}, the total entropy associated with isothermal events occurring from T/K = (0 to T_{fus}). For most substances with no additional phase transitions other than fusion, and isotropic behavior of the liquid, the product of $T_{fus}\cdot\Delta S_{tpce}$ can provide a reasonable estimate of the fusion enthalpy.

If the fusion enthalpy of the compound in question is known, the method described below offers a relatively simple manner of identifying potential substances that exhibit atypical behavior. For example, in an application of an earlier version of this estimation method applied to over 600 compounds known to form liquid crystals, this method greatly overestimated the total phase change entropies in comparison to solids with no additional phase transitions other than fusion. Even in cases where the total entropies of transition in the liquid crystals were known, the estimated values still exceeded the total values calculated. Only when the entropy associated with the heat capacity was also taken into account did the total entropy of the molecule correlate with homologous molecules that did not form liquid crystals as shown by Sorai *et al.* for the benzene hexa-*n*-alkanoates. [2003ASA/SOR, 2001ASA/SOR, 2006ACR/CHI]

Atypical behavior in the liquid state, though less common, is also well known. Molecules containing segregated portions of fluorocarbons and hydrocarbons frequently do not behave isotropically in the liquid state and their fusion entropies are also overestimated by this approach. The overestimation is approximately 40% of the value estimated. [2003CHI/ACR]

While the fusion entropies of compounds exhibiting polymorphism can differ, their values are often quite similar. For such substances, the estimated total phase change entropy described below appears to correlate best with the thermodynamically most stable form. [2003CHI/ACR]

2.2. The group additivity method

The group method that has evolved mirrors both the complexity and diversity of the solid state. The protocol was last updated in 2009. [2009CHI/ACR] The group method described below in Secs. 3–5 is based mainly on structure. The focus of this update is to provide additional data to bolster the statistics of a number of group values previously assigned based on very limited data and to increase the scope of the method to include additional functional groups. Most group values reported previously have not been tampered with; exceptions include a few tentative values that have either been modified on the basis of the availability of new data or eliminated because of their unreliability. Group values are defined in Tables 1–8. Table 3 defines a few common groups whose values depend on the number of other functional groups present on the target molecule as defined in Table 3. Tables 4–7 segregate functional groups according to the number of additional attachments necessary to satisfy the valence requirements of the functional group; one, two, three, or four groups. Table 8 compliments Table 2 by providing contributions for cyclic functional groups. Groups in the tables are described in column 1 and defined in the second column; group values are provided in the third column. Group values in brackets have been evaluated by fewer than ten entries and are considered tentative assignments. Their value is based on the number of entries provided in parenthesis in column 1 of

TABLE 1. Contributions of the hydrocarbon portion of the molecule

Aliphatic and aromatic carbon groups		Group value (G_i)[a] $J \cdot mol^{-1} \cdot K^{-1}$	Group coefficient (C)[a]
Primary sp^3 C	$\mathbf{CH_3}$—R	17.6	
Secondary sp^3 C	R_2>$\mathbf{CH_2}$	7.1	1.31[b]
Tertiary sp^3 C	R_2>$\mathbf{CH}$—R	−16.4	0.60[c]
Quaternary sp^3 C	R_2>$\mathbf{C}$< R_2	−34.8	0.66[c]
Secondary sp^2 C	=$\mathbf{CH_2}$	17.3	
Tertiary sp^2 C	=$\mathbf{CH}$—	5.3	0.75[c]
Quaternary sp^2 C	=$\mathbf{C}$(R)—	−10.7	
Tertiary sp C	$\mathbf{H}$—$\mathbf{C}$≡	17.5	
Quaternary sp C	R—$\mathbf{C}$≡	−4.3	
Tertiary benzenoid sp^2 C	=$\mathbf{C_aH}$—	7.4	
Quaternary benzenoid sp^2 C adjacent to an sp^3 atom[d]	=$\mathbf{C_a}$(R)—	−9.6	
Quaternary benzenoid sp^2 C adjacent to an sp^2 atom[e]	=$\mathbf{C_a}$(R)—	−7.5	
Internal benzenoid quaternary adjacent to 3 sp^2 atoms[f]	=$\mathbf{C_a}$(R)—	−0.7	

[a]R refers to any group or heteroatom; group coefficients are assumed to be 1 unless noted otherwise.
[b]The group coefficient of 1.31 for C_{CH_2} is applied only when the number of consecutive methylene groups exceeds the sum of the remaining groups (both carbon and other functional groups); see text for additional details.
[c]Applied only when a functional group is attached at this position.
[d]This group applies to any quaternary benzenoid carbon adjacent to an sp^3 hybridized atom with no lone pair of electrons.
[e]This group applies to any quaternary benzenoid carbon adjacent to any sp^2 hybridized atom and to sp^3 hybridized atoms with a lone pair electrons with the exception of internal quaternary carbon atoms (see footnote f).
[f]Any internal quaternary benzenoid carbon that is not at the periphery of a molecule; for example the six internal quaternary benzenoid carbon atoms of coronene.

TABLE 2. Adjustments to contributions of the cyclic hydrocarbon portions of the molecule

Contributions of cyclic carbons (C_c)		Group value (G_i)[a] $J \cdot mol^{-1} \cdot K^{-1}$	Group coefficient (C)
Cyclic tertiary sp^3 carbon	—$\mathbf{C_c}$**H**(R)—	−14.7	
Cyclic quaternary sp^3 carbon	—$\mathbf{C_c}$<$(R)_2$—	−34.6	
Cyclic tertiary sp^2 carbon	=$\mathbf{C_c}$H—	−1.6	1.92[b]
Cyclic quaternary sp^2 carbon	=$\mathbf{C_c}$(R)—	−12.3	
Cyclic quaternary sp carbon	=$\mathbf{C_c}$=; R—$\mathbf{C_c}$≡	−4.7	

[a]R refers to any organic fragment including other functional groups or heteroatom; group coefficients are assumed to be 1 unless noted otherwise.
[b]Applied only when a cyclic functional group is attached at this position.

TABLE 3. Contributions of the functional group portion of the molecule; acyclic functional groups dependent on the substitution pattern

Functional groups[a]		Group value (G_k)[a] J·mol^{-1}·K^{-1}	Group coefficient (C_k)[a] k		
			2	3	$\mathbf{k_n}$[b]
Chlorine		10.8	1.5	1.5	1.5
2-fluorines on an acyclic sp^3 C	$R_2 >$ **CF_2**	13.2	1.06	1.06	1.15[c]
Alcohol	R—**OH**	1.7	10.4	9.7	13.1
Carboxylic acid	R—**C(=O)OH**	13.4	1.21	1.21	2.25

[a]Group coefficient refers to the total number of functional groups present; R refers to any organic fragment including other functional groups.
[b]To be used in cases with 4 or more functional groups.
[c]To be used in acyclic perfluorinated hydrocarbons.

TABLE 4. Contributions of the functional group portion of the molecule; values for monosubstituted functional groups

Acyclic groups		Group value (G_k)[b] J·mol^{-1}·K^{-1}
Bromine	R—**Br**	17.5
Fluorine on an sp^2 carbon	=CH**F**	19.5
Fluorine on an aromatic carbon	=C_a**F**—	16.6
3-fluorines on an sp^3 carbon	**CF_3**—R	13.2
1-fluorine on an sp^3 carbon	$R_2 >$ C**F**—R	12.7
1 or 2 Fluorines on a cyclic sp^3 carbon	>C_cH**F**—>C_c**F_2**—	[17.5]/F
Iodine	R—**I**	19.4
Phenol	=C—(**OH**)—	20.3
Hydroperoxide (2)	R—**OOH**	[31.8]
Aldehyde	R—**CH(=O)**	21.5
Formate ester (4)	R—**O(C=O)H**	[22.3]
Acyl chloride (1)	R—(**C=O**)Cl	[25.8]
Primary amine	R—**NH_2**	21.4
Azide (2)	R—**N_3**	[*36.3*]
Nitro group	R—**NO_2**	17.7
Nitrate ester	R—**ONO_2**	24.4
Nitrile	R—**C≡N**	17.7
Isocyanide (1)	R—**NC**	[17.5]
Isocyanate (4)	R—**N=C=O**	[23.1]
Primary amide	R—**$CONH_2$**	27.9
N-nitroso (3)	>N—**N=O**	[*33.1*]
Oxime	=**N—OH**	13.6
Hydrazide (5)	R—**C(=O)NHNH_2**	[26.0]
Monosubstituted urea	R—**NHC(=O)NH_2**	14.1
Monosubstituted thiourea (4)	R—**NHC(=S)NH_2**	[30.1]
Phosphonic acid (2)	R—(**P=O**)(**$OH)_2$**	[*13*]
Thiols	R—**SH**	23.0
Thioamide (1)	R—**C(=S)NH_2**	[*30.0*]
Sulfonic acid (2)	R—**S(=O)$_2$OH**	[1.8]
Sulfonamide (8)	R—**S(=O)$_2$NH_2**	25.2
Sulfonyl chloride (2)	R—**S(=O)$_2$**Cl	[23.4]
Alkyl arsonic acid (3)	R—(**As=O**)(**$OH)_2$**	**[−2.9]**

the table. Details of the application of the estimation method are illustrated by several specific examples.

3. Applications

Application of the group values in Tables 1–8 used to estimate total phase change entropies is illustrated below. The estimations are arranged in terms of increasing complexity.

3.1 Estimations of acyclic and aromatic hydrocarbons.

3.2 Estimation of polymers.

3.3 Estimations of cyclic and polycyclic hydrocarbons.

3.4 Estimations of functionalized acyclic and aromatic hydrocarbons.

3.5 Estimations of functionalized cyclic and polycyclic hydrocarbons.

3.6 Estimations of complex cyclic and polycyclic compounds.

Group values for carbon and for a number of other elements are defined on the basis of their substitution

TABLE 5. Contributions of the functional group portion of the molecule; values for disubstituted functional groups

Acyclic groups		Group value $(G_k)^b$ $J \cdot mol^{-1} \cdot K^{-1}$
Ether	R—**O**—R	4.71
Peroxide (1)	R—**O**—**O**—R	[10.6]
Ketone	R—**C**(=**O**)—R	4.6
Ester	R—**C**(=**O**)**O**—R	7.7
Carbonate (4)	R—**OC**(=**O**)**O**—R	[7.1]
Anhydride (2)	R—(**C**=**O**)**O**(**C**=**O**)—R	[10.0]
Aromatic heterocyclic nitrogen	=$\mathbf{N_a}$—	10.9
Acyclic sp^2 nitrogen	=**N**—	−1.8
Secondary amine	R—**NH**—R	*0.2*
Azoxy nitrogen (6)	R—N=**N**(→**O**)—R	[*3.7*]
Secondary amide	R—**C**(=**O**)**NH**—R	1.5
Iminohydrazide (4)	R—**C**(=**O**)**NHN**=CHR	[18.6]
1,1-disubstituted urea (2)	R_2>**NC**(=**O**)**NH**$_2$	[19.5]
1,3-disubstituted urea	R**NHC**(=**O**)**NH**—R	−8.1
1,3-Diacyl substituted thiourea (3)	R[**C**(=**O**)**NH**(**C**=S)**NHC**(=**O**)]R	[*−76*]
Imide (3)	R—[**C**(=**O**)**NHC**(=**O**)]—R	[10.4]
Phosphinic acid **(3)**	R_2> [(**P**=**O**)**OH**]	[*17*]
Phosphoroamidodithioate ester (1)	[**NH**$_2$**P**(=**S**)(**S**—**R**)(**O**]—R)	[6.9]
Sulfides	R—**S**—R	2.1
Disulfides (6)	R—**SS**—R	[9.6]
Sulfoxide (3)	R—**S**(=**O**)—R	[8.0]
Sulfones	R—**S**(=**O**)$_2$—R	0.6
Sulfonate ester (3)	R—**S**(=**O**)$_2$**O**—R	[7.3]
1,3-disubstituted thiourea (6)	R—**NHC**(=**S**)**NH**—R	**[7.8]**
Isothiourea(1)	R—**S**—(**C**=**NH**)**NH**R	[**23.8**]
Thioamide (1)	R—**C**(=**S**)**NH**$_2$	[**15.0**]
N-substituted sulfonamide	R—**S**(→**O**)$_2$**NH**—R	*4.5*
Disubstituted selenium (9)	R_2—**Se**	[*−23*]
Disubstituted zinc (3)	R_2**Zn**	[11.1]
Disubstituted telluride (5)	R_2**Te**	[**5.1**]
Disubstituted arsenic acid	R_2 (**As**=**O**)**OH**	−24

TABLE 6. Contributions of the functional group portion of the molecule; values for trisubstituted functional groups

Groups		Group value $(G_k)^b$ $J \cdot mol^{-1} \cdot K^{-1}$
Tertiary amine	R_3**N**	−22.2
Tertiary amide	R—(**C**=**O**)**N**<R_2	−11.2
1,1,3-trisubstituted urea	R_2>**NC**(=**O**)**NH**—R	0
Phosphine oxide (3)	R_3**P**=**O**	[*−21.1*]
Phosphonate ester (1)	R—**P**(=**O**)(**O**—R)$_2$	[*−3.4*]
Phosphoramidate ester (5)	(R—**O**)$_2$**P**(=**O**)**NH**—R	[*−9.2*]
Phosphorothioate ester	(R—**O**)$_3$**P**(=**S**)	1.1
Phosphorodithioate ester (8)	R—**S**—**P** (=**S**)(**O**—**R**)$_2$	−9.6
Phosphonothioate ester (2)	R—**P**(=**S**)(**O**—R)$_2$	[5.2]
Phosphoroamidothioate ester (1)	R—**NHP**(=**S**)(**O**—R)$_2$	[16.0]
Diacylsubstituted isoselenourea	R**C**(=**O**)**N**=**C**(**Se**R)**NHC**(=**O**)R	*−51*
N,N-disubstitued thioamide (2)	R—**C**(=**S**)**N**R$_2$	[−13.5]
N,N disubstituted thiocarbamate (1)	R—**SC**(=**O**)**N**<R_2	[*5.5*]
N,N-disubstituted sulfonamide (4)	R—**S**(=**O**)$_2$**N**—R$_2$	[−11.3]
Trisubstituted aluminum (2)	R_3**Al**	[−24.7]
Trisubstituted arsenic (5)	R_3**As**	[**3.1**]
Trisubstituted boron (2)	R_3**B**	[−17.2]
Trisubstituted gallium (2)	R_3**Ga**	[−11.3]
Trisubstituted indium (2)	R_3—**In**	[−19.3]

pattern and hybridization. The terms primary, secondary, tertiary, and quaternary are defined in terms of the number of attached hydrogens, 3, 2, 1, 0, respectively. Tables 1 and 2 define the typical carbon groups found in organic chemistry.

3.1. Estimations of acyclic and aromatic hydrocarbons

Examples of the estimations of simple hydrocarbons are illustrated in Fig. 1. These estimations follow a standard

TABLE 7. Contributions of the functional group portion of the molecule; values for tetrasubstituted functional groups

Groups		Group value (G_k)[b] J·mol^{-1}·K^{-1}
Tetrasubstituted thiourea (1)	R_2>**N(C=S)N**<R_2	[−7.2]
Quaternary silicon	R_4**Si**	−27.1
Quaternary tin (6)	R_4**Sn**	[−24.2]

group additivity protocol with few exceptions. If the number of consecutive methylene groups (C_{CH2}, secondary sp^3 C) equals or exceeds the sum total of carbon groups as defined in Tables 1 and 2 and other functional groups as defined in Tables 3–8, the value is incremented from 7.1 to 9.3 J·mol^{-1}·K^{-1} (7.1 × 1.31, Table 1). Please note that only the groups in Tables 3–8 are considered functional groups in the discussion that follows. The remaining group coefficients identified in the last column of Table 1 with the exception of the value of 1.31 are only used with attached functional groups at those locations and their use is illustrated below. In both tridecane and diphenylmethane, estimation of the total phase change entropy is quite simple. Tridecane contains only two carbon groups, a methyl and methylene group. The groups can easily be identified in Table 1. Diphenylmethane contains two different types of aromatic carbon groups, a tertiary and quaternary carbon (no available hydrogens). Since the carbon of the methylene group is sp^3 hybridized and has no available p electrons, the value −9.6 is chosen for the quaternary benzenoid carbon. Heterocyclic aromatic compounds are estimated in a similar manner using the group value for an aromatic sp^2 hybridized nitrogen reported in Table 5. Once the total phase change entropy is calculated, the product of ΔS_{tpce} and the melting point T_{fus} can provide an estimate of the total phase change enthalpy, ΔH_{tpce}. Tridecane

TABLE 8. Cyclic functional group adjustments to Eqs. (2) and (3)

Heteroatoms and functional groups comprising a portion of a ring[a]		Group value (G_k)[b] J·mol^{-1}·K^{-1}
Cyclic ether	*R*—***O***$_c$—*R*	1.2
Cyclic peroxide (4)	*R*—[***OO***]$_c$—*R*	[27.7]
Cyclic ketone	*R*—[***C***(=O)]$_c$—*R*	−1.4
Cyclic ester	*R*—[***C***(=**O**) *O*]$_c$—*R*	3.1
Cyclic carbonate (6)	*R*—[***OC***(=**O**) *O*]$_c$—*R*	[1.3]
Cyclic anhydride	*R*—[***C***(=**O**)—***O***—***C***(=*O*)]$_c$—*R*	2.3
Cyclic sp^2 nitrogen	R*RC*=[***N***$_c$]—*R*	0.5
Cyclic tertiary amine	*R*$_2$>***N***$_c$—R	−19.3
Cyclic hydrazine (2)	*R*$_2$>***N***$_c$**NH$_2$**	[21.7]
Cyclic secondary amine	*R*—***N***$_c$**H**—*R*	2.2
Cyclic tertiary amine-N-oxide (1)	*R*—***N***$_c$(→**O**)—*R*R	[−22.2]
Cyclic azoxy group (2)	*R*—***N***$_c$=***N***$_c$(→**O**)—*R*	[2.9]
Cyclic secondary amide	*R*—[***C***(=**O**)*N*H]$_c$—*R*	2.7
Cyclic tertiary amide	*R*—[***C***(=**O**)*N*]$_c$<*R*,R	−21.7
Cyclic tertiary amide (4)	R—***C***(=**O**)[*N*]$_c$<*R*$_2$	[*−7.0*]
Cyclic carbamate (2)	*R*—[***OC***(=**O**)***N***—**H**]$_c$*R*	**[15.3]**
N substituted cyclic carbamate (3)	*R*—[***OC***(=**O**)***N***]$_c$<*R*R	[−5.2]
N,N disubstituted cyclic carbamate	R—[***OC***(=**O**)***N***]$_c$<*R*$_2$	**−22.2**
N-substituted cyclic imide (17)	*R*—[***C***(=O)***N***(R)***C***(=**O**)]$_c$—*R*	−13.6
Cyclic imide (9)	*R*—[***C***(=**O**)***N***(**H**)***C***(=**O**)]$_c$—*R*	[2.8]
Cyclic phosphorothioate (1)	*R*—[***O***—***P***(=**S**)<(*OR*)]$_c$(**O**R)	[−15.6]
Cyclic phosphate ester (2)	**[***R*—***O***—***P***(=**O**) *OR*]**OR**	**[−17]**
Cyclic sulfide	*R*—[***S***]$_c$—*R*	2.9
Cyclic disulfide (5)	*R*—[***SS***]$_c$—*R*	[−6.4]
Cyclic disulfide S-oxide (2)	*R*—***S***S(=**O**)$_c$—*R*	[4.0]
Cyclic sulfoxide (1)	*R*—[***S***(=**O**)]$_c$—*R*	[−2.2]
Cyclic sulfone (7)	*R*—[***S***(=**O**)$_2$]$_c$—*R*	[*0*]
Cyclic thiocarbonate (1)	*R*—[***OC***(=**O**)*S*]$_c$—*R*	[14.3]
Cyclic sulfite (1)	*R*—[***OS***(=**O**)*O*]$_c$—*R*	[−5.8]
Cyclic dithioester (2)	*R*—[(*C*=**S**)***S***]$_c$—*R*	[11.0]
Cyclic sulfate (1)	*R*—[***OS***(=**O**)$_2$***O***]$_c$—*R*	[0.9]
Cyclic sulphonamide (1)	*R*—[***S***(=**O**)$_2$***N***H]$_c$—*R*	[−0.4]
Cyclic N substituted sulfonamide (4)	*R*—[**SO$_2$** *N*]$_c$—*R*R	[*−17.6*]
Cyclic carboxyl sulfimide (1)	*R*—[**SO$_2$N**H—(***C***=**O**)]$_c$—*R*	**[13.9]**
Cyclic thiocarbamate (1)	*R*—[***S***—(***C***=**O**)***N*H**]$_c$—*R*	[13.9]
Cyclic isothiocarbamate (3)	*R*—[***O***—(***C***=**S**)***N*H**]$_c$—*R*	[2.6]
Cyclic dithiocarbamate (1)	*R*—[***S***—(***C***=**S**)***N*H**]$_c$—*R*	[3.8]
Cyclic quaternary silicon	R$_2$>[***Si***]$_c$<*R*$_2$	−34.7

[a]R refers to any alkyl or aryl group unless specified otherwise; X refers to any halogen; values in brackets are tentative assignments; atoms in bold in column 2 define the atoms included in the functional group; all group values in this table are to be used with the ring Eqs. (2) or (3); values in brackets are tentative assignments and are based on the number of entries in parentheses reported in column 1; the R groups that comprise a portion of the ring structure are designated by italics; all group coefficients; Ck can be assumed to be 1.

Tridecane

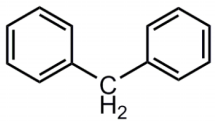
$CH_3CH_2(CH_2)_9CH_2CH_3$

$[2*(17.6) + 11*(7.1)*(1.31)] = 137.5$ J mol^{-1} K^{-1}

$\Delta H_{fus} = 137.5*267.3 = 36800$ J mol^{-1}

$\Delta H_{trs} = 7900$ J mol^{-1}
$T_{trs} = 254.4$ K
$\Delta H_{fus} = 29620$ J mol^{-1}
$T_{fus} = 267.3$ K
$\Delta S_{tpce} = 141.9$ J mol^{-1} K^{-1}
[2005HUA/SIM]

Diphenylmethane



$[10*(7.4) + 2*(-9.6) + (7.1)] = 61.9$ J mol^{-1}K^{-1}

$\Delta H_{fus} = 61.9* 298.4 = 18500$ J mol^{-1}

$\Delta H_{fus} = 19010$ J mol^{-1}
$T_{fus} = 298.4$ K
$\Delta S_{tpce} = 63.7$ J mol^{-1} K^{-1}
[2005CHI/STE2]

FIG. 1. Estimations of acyclic and aromatic hydrocarbons.

illustrates an example where the crystalline phase undergoes a solid–solid phase transition. The solid–solid phase transition enthalpy and transition temperature are denoted as ΔH_{trs} and T_{trs}, respectively, in the following illustrations. If the phase transition occurs close in temperature to the melting temperature, as in the case for tridecane, the predicted total phase change enthalpy is quite close to the experimental value: (36.8–37.5) kJ·mol^{-1}. However, if the phase transition occurs at a much lower temperature, then the predicted total phase change enthalpy can be quite different from the fusion enthalpy. Based on the results for diphenylmethane, the estimation suggests that diphenylmethane does not have any substantial phase changes occurring at temperatures below ambient.

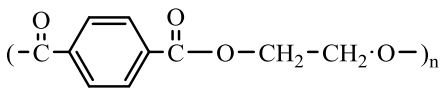
3.2. Estimations of polymers

Among the simplest class of molecules to estimate are microcrystalline linear polymers. Fusion enthalpies for these materials are usually reported per repeat unit. Polyethylene, poly(ethylene terephthalate) (—CH_2—, =C_aH_s—, —C(=O)O—) and nylon 6,10 (poly(hexamethylene decanediamide) (—CH_2—, —C(=O)NH—) in Fig. 2 are a few examples. Experimental values for all polymers are from [1990WUN, 1992VAN].

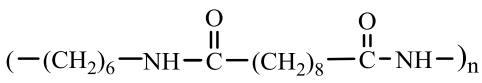
3.3. Estimation of cyclic and polycyclic hydrocarbons

The total phase change entropy of a cyclic or heterocyclic hydrocarbon is evaluated by first calculating the total phase change entropy of the parent cycloalkane containing only methylene groups. This is accomplished using Eq. (2) where N refers to the number of ring atoms. The resulting value is then adjusted for any changes in either the substitution pattern or hybridization from the parent cycloalkane using the group values in Table 2. Any additional acyclic hydrocarbon substituents are then added in normal group fashion to the ring using the values provided in Table 1. For polycyclic hydrocarbons, Eq. (3) is used followed by adjustments for the

$-(CH_2)_n-$ $[7.1*1.3] = 9.3$ (9.6 lit.) J mol^{-1} K^{-1} lit. [1990WUN]



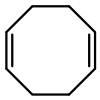
$[2*7.1+4*7.4+2*(-7.5)+2*7.7] = 44.2$ (48.6 lit.) J mol^{-1} K^{-1}



$[14*7.1*1.3+2*1.5] = 132.2$ (141.6 lit.) J mol^{-1} K^{-1}

FIG. 2. Estimation of polymers.

1.5-Cyclooctadiene



$[33.4 + 3.7(8-3) + 4(-1.6)] = 45.5$ J mol^{-1} K^{-1}

$\Delta H_{fus} = 45.5*204 = 9280$ J mol^{-1}

$\Delta H_{trs} = 380$ J mol^{-1}

$T_{trs} = 194.4$ K

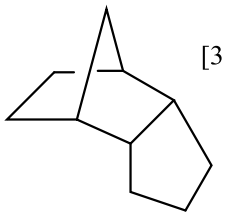
$\Delta H_{fus} = 9830$ J mol^{-1}

$T_{fus} = 204$ K

$\Delta S_{tpce} = 50.1$ J mol^{-1} K^{-1}

[1996DOM/HEA]

endo Tetrahydrodicyclopentadiene



$[3(33.4) + 3.7(10-9) + 4(-1.6)] = 45.1$ J mol^{-1} K^{-1}

$\Delta H_{fus} = 45.1*356.8 = 16100$ J mol^{-1}

$\Delta H_{trs} = 10700$ J mol^{-1}

$T_{trs} = 194.4$ K

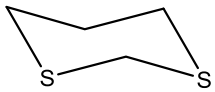
$\Delta H_{fus} = 3480$ J mol^{-1}

$T_{fus} = 356.8$ K

$\Delta S_{tpce} = 50.1$ J mol^{-1} K^{-1}

[2002CHI/HIL]

1,3-Dithiane



$[33.4) + 3(3.7) + 2(2.9)_c] = 50.3$ J mol^{-1}K^{-1}

$\Delta H_{fus} = 50.3*327.2 = 16500$ J mol^{-1}

$\Delta H_{trs} = 800$ J mol^{-1}

$T_{trs} = 316.4$ K

$\Delta H_{fus} = 14400$ J mol^{-1}

$T_{fus} = 327.2$ K

$\Delta S_{tpce} = 46.5$ J mol^{-1} K^{-1}

[1996DOM/HEA]

FIG. 3. Estimations of cyclic hydrocarbons.

bridgehead atoms, depending on their substitution pattern. The term R in Eq. (3) refers to the number of rings. In a polycyclic system, the value of R is determined by the minimum number of carbon–carbon bonds that must be broken to make the molecule completely acyclic. Additional substituents are added in normal fashion followed by adjustments for any changes in the substitution pattern and/or hybridization from the parent cycloalkane containing only cyclic secondary sp^3 hybridized carbon. The most common carbon modifications to the cyclic carbon atoms are listed in Table 2. As described below, substitutions of cyclic heteroatoms for cyclic carbon in nonaromatic systems are handled in much the same manner. For ease of identity, functional groups selected from Table 8 are identified in the examples below with a subscript c. The *R* groups in italics in Table 8 identify the remaining cyclic portion of the molecule,

Monocyclic ring systems:

$$\Delta_0^{T_{fus}} S_{tpce}\Delta(\text{ring}) = [33.4] + [3.7][N - 3]. \quad (2)$$

Polycyclic ring systems :

$$\Delta_0^{T_{fus}} S_{tpce}(\text{ring}) = [(33.4)R + 3.7(N - 3R)], \quad (3)$$

where N = number of ring atoms and R refers to the number of rings.

Both 1,5-cyclooctadiene (ring equation + $=C_cH—$) and *endo* tetrahydrodicyclopentadiene (ring equation + $C_cH<$) shown in Fig. 3 have solid–solid phase transitions. In the case of the former compound, the transition is small and occurs near the fusion temperature. In the latter case the solid–solid phase transition is large and quite separate from the fusion temperature. Although the total phase change enthalpy is reasonably reproduced, estimation of the fusion enthalpy for *endo* tetrahydrodicyclopentadiene is quite poor in this case because of the large difference in temperature between the transition and fusion temperatures.

1,3-dithiane (ring equation, $—[\boldsymbol{S}]_c—$) illustrates a simple example of an estimation of a nonaromatic heterocycle. Since the transition temperature is very close to the fusion

temperature, the total phase change enthalpy is reasonably well reproduced, 15 200 compared to 16 500 J·mol^{-1}.

3.4. Functionalized acyclic and aromatic hydrocarbons

Estimations of aromatic and aliphatic hydrocarbons derivatives also follow a standard group additivity protocol. Group values for acyclic functional groups are provided in Tables 3–7. The functional groups are segregated into groups according to the number of attached R groups necessary to complete the valence requirements of the functional group. As examples, an ether oxygen, an aromatic cyclic nitrogen, and a secondary amide (R*CON*HR) are grouped together for ease of location. Values for a few functional groups, those in Table 3, are segregated from the rest because their value is dependent on the total number of other functional groups attached to the molecule. The functional group itself is also included in this count but groups from Tables 1 and 2 are not. The group value to be used is simply the product of group coefficient and the group value. The group coefficients listed in the last column of Table 3 should be used for substances containing four or more functional groups. Fluorine substitution is the only exception and is considered a single substituent regardless of the number of fluorine atoms attached. Group values for the remaining acyclic functional groups are arranged according to the substitution pattern of the functional group. Terminal functional group values are reported in Table 4 while disubstituted, trisubstituted, and tetrasubstituted groups are arranged in Tables 5–7, respectively. Estimation of substances that fall in these two categories follows standard group additivity protocol with the exception just described for the functional groups listed in Table 3. The following examples in Fig. 4 illustrate typical estimations. None of the compounds listed as examples were included in evaluating any group values.

The top three estimations, derivatives of carboxylic acids, illustrate the application of the group coefficients in Table 3. The group value for carboxylic acids depends upon the total number of functional groups present as does the chlorine in the first estimation. The total number of functional groups in 2-benzoyl-3-chlorobenzoic acid (=C_aH—, =C_a(R_a)—, —**Cl**, —**CO_2H**, —**CO_2R**) is three and two for 3,5-di-*tert*-butylsalicylic acid as indicated in bold (CH_3—, >C<, =Ca—**(OH)**—, =C_a(R_s))—, =C_a(R_a)—, —**CO_2H**). The group coefficients are selected appropriately. The remaining groups are treated in normal fashion.

N-tetradecanoyl-(L)-alanine (CH_3—, —CH_2—, >CH—, —CO_2H, —C(=O)NH—) is an example of a compound that illustrates the application of two of the group coefficients in Table 1. The compound contains 10 consecutive methylene groups compared to a total of five other groups present, two functional groups and three carbon groups. Since the number of consecutive methylene groups is in excess, the contribution of each methylene group is the product of the group value and the group coefficient in Table 1. This estimation also illustrates the use of the group coefficient for a tertiary sp^3 carbon. If a functional group is attached to any carbon with a group coefficient listed in these two tables, other than for a CH_2 group, the contribution of the carbon group is the product of the group value and the group coefficient. Thus in N-tetradecanoyl-(L)-alanine, the group value for the tertiary sp^3 carbon is (−16.4)(0.6).

The estimation of benz[a]acridine (=C_aH—, =C_a(R_a)—, =N_a—) is straightforward. Since the molecule is a totally aromatic compound, the estimation is simply the sum of the groups.

3.5. Estimations of functionalized cyclic and polycyclic hydrocarbons

Estimations of functionalized cyclic and polycyclic compounds use Eq. (2) or (3) to first evaluate the contribution of the ring or rings. The presence of substituents, double bonds, or heteroatoms on the ring is treated as adjustments to the parent cycloalkane as a result of hybridization and substitution changes, similar to the estimations provided above in Section 3.3.

Figure 5 summarizes adjustments to the ring equations resulting from structural modifications to the original cycloalkane and how they affect the total phase change entropy of the ring.

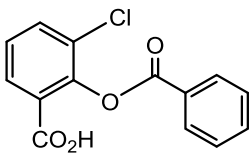
The estimation of phenothiazine (ring equation, =***C*$_c$**(*R*)—, =***C*$_c$**(*R*)—, —***N*$_c$*H*—, —[***S*$_c$**]—, =C_aH—) illustrates a slightly more complex situation. Since both the sulfur and nitrogen are cyclic but not aromatic, they both require the use of the ring equation and the group values listed in Table 8. Thus the six membered heterocyclic ring must be estimated as cycloalkane. This brings into question how to treat the four sp^2 hybridized carbons bound to the heteroatoms. The protocol developed requires these four atoms to be analyzed as cyclic quaternary sp^2 hybridized carbons and not as quaternary aromatic carbons. The remaining portion of the molecule is treated normally as 8 tertiary aromatic sp^2 hybridized carbons. In summary, estimations of nonaromatic rings take priority over the aromatic portion of the molecule.

The estimation of phenobarbitol illustrates a slightly different estimation. The heterocyclic six membered ring also necessitates the use of the ring equation for a six membered ring. The ring can be thought of being composed of a cyclic imide (*R*$_c$(**C—ONH)C=O**)*R*$_c$), a cyclic secondary amide (*R*(***C*=*O*)*NH*R**), and a cyclic quaternary sp^3 hybridized carbon (—***C*$_c$** < (R)$_2$—). The remaining ethyl and phenyl groups are evaluated normally. An alternative calculation substitutes group values for two cyclic secondary amides and a ketone together with the remaining portion of the molecule for which there is no ambiguity. The result in this case is essentially the same. Estimations of this sort for which the functional groups must be synthesized from existing components are usually associated with larger uncertainties.

4. Statistics in Evaluation of Group Values

The original 18 carbon groups and Eqs. (1) and (2) were derived from 192 hydrocarbons resulting in a standard deviation of ±11.2 J·mol^{-1}·K^{-1} back in 1990. [1990CHI/HES]

2-Benzoyl-3-chlorobenzoic acid

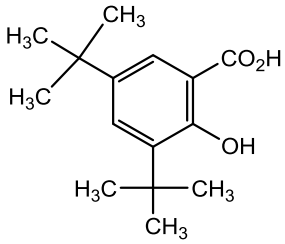


[8(7.4) + 4(-7.5) + (10.8)(1.5) + (13.4)(1.21) + (7.7)] = 69.3 J mol^{-1} K^{-1}

ΔH_{fus} = 69.3*506.3 = 35100 J mol^{-1}

ΔH_{fus} = 35500 J mol^{-1}
T_{fus} = 506.3 K
ΔS_{tpce} = 70.1 J mol^{-1} K^{-1}
[2013YOU/GAO]

3,5-Di-*tert*-butylsalicyclic acid

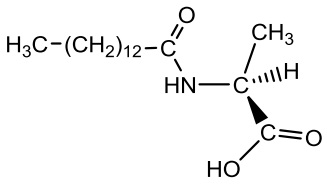


[6(17.6) + 2(-34.8) + (20.3) + 2(-9.6) + 2(-7.5) + 2(7.4) + (13.4)(1.21)] = 53.1 J mol^{-1} K^{-1}

ΔH_{fus} = 53.1*437.5 = 23200 J mol^{-1}

ΔH_{fus} = 22920 J mol^{-1}
T_{fus} = 437.5 K
ΔS_{tpce} = 52.4 J mol^{-1} K^{-1}
[2003YU/TAN]

N-Tetradecanoyl-(L)-alanine

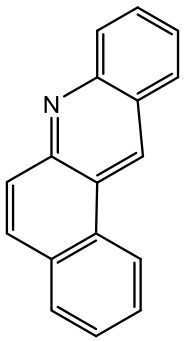


[2(17.6) + 12(7.1)(1.31) + (-16.4)(0.6) + (13.4)(1.21) + (1.5)] = 154.7 J mol^{-1} K^{-1}

ΔH_{fus} = 154.7*367.1 = 56800 J mol^{-1}

ΔH_{fus} = 52300 J mol^{-1}
T_{fus} = 367.13 K
ΔS_{tpce} = 142.5 J mol^{-1} K^{-1}
[1986MIY/MAT]

Benz[a]acridine



[11(7.4) +6(-7.5) + 10.9] = 47.3 J mol^{-1} K^{-1}

ΔH_{fus} = 47.3*402.8 = 19100 J mol^{-1}

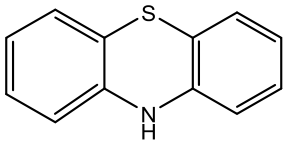
ΔH_{fus} = 21900 J mol^{-1}
T_{fus} = 36713 K
ΔS_{tpce} = 54.4 J mol^{-1} K^{-1}
[2010KES/AUC]

FIG. 4. Estimation of aliphatic and aromatic derivatives.

Their values have not changed much if any since. The update published in 1991 provided initial group values for 37 functional groups on the basis of 458 entries and in 1999 the total number of function groups was increased to 128 evaluated on the basis of a total of 1858 entries. [1991CHI/BRA] This resulted in a standard deviation of ±13 J·mol^{-1}·K^{-1}. In 2003, an additional 547 entries resulted in changes to 18 of the 128 functional groups and resulted in a standard deviation of ± 18.6 J·mol^{-1}·K^{-1}. [2003CHI/ACR] The previous update in 2009 added approximately a thousand additional compounds of increasing complexity, increasing the total number of functional groups to 160 but retained a standard deviation of ±18.6 J·mol^{-1}·K^{-1}.

Most of the functional groups have not varied much since 1999 because it either has not been necessary or there has been a lack of additional data. Errors detected subsequently in some estimations have led to some changes. In a few cases newer experimental data have supplanted older data

Phenothiazine

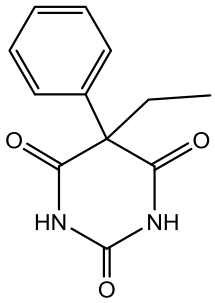


[33.4 + 3(3.7) + 2.2 + 4(-12.3)
2.9 + 8(7.4)] = 59.6 J mol^{-1} K^{-1}

ΔH_{fus} = 59.6*457.2 = 27200 J mol^{-1}

ΔH_{fus} = 28400 J mol^{-1}
T_{fus} = 457.2 K
ΔS_{tpce} = 62.1 J mol^{-1} K^{-1}
[2007GUP/SIN]

Phenobarbitol



[33.4 + 3(3.7) + $(2.8)_c$ + $(2.7)_c$ + (-34.6) +
17.6 + 7.1 + 5(7.4) + (-9.6)] = 67.5 J mol^{-1} K^{-1}

ΔH_{fus} = 67.5*449 = 30300 J mol^{-1}

ΔH_{fus} = 28000 J mol^{-1}
T_{fus} = 449 K
ΔS_{tpce} = 62.4 J mol^{-1} K^{-1}
[2010ZEN/GEL]

[33.4 + 3(3.7) + 2$(2.7)_c$ + $(-1.4)_c$+ $(-34.6)_c$ +
17.6 + 7.1 + 5(7.4) + (-9.6)] = 66.0 J mol^{-1} K^{-1}

ΔH_{fus} = 66*449 = 29600 J mol^{-1}

FIG. 5. Estimations of complex cyclic and polycyclic hydrocarbons.

usually in better agreement with estimation. In this update, a few functional groups have also been eliminated on the basis of their variability and potential unreliability. This included a number of polynitrated compounds and some organometallics. A few new groups have also been added to the tables; these are identified in bold. Group values that have been changed from previous versions are reported in italics. Parameters for new values and values that were upgraded due to new data were evaluated by minimizing R in equation (4),

$$R = \sum_1^n \left(\frac{\triangle S_{tpce}(exp) - \triangle S_{tpce}(est)}{\triangle S_{tpce}(exp)} \right)^2. \quad (4)$$

The experimental total phase change entropies and enthalpies were calculated as a sum of the known experimental entropies and enthalpies for those compounds known to exhibit isothermal solid–solid phase transitions. The estimated total phase change entropy was calculated by the group method just discussed. The total phase change enthalpy was calculated as the product of the calculated total phase change entropy and the experimental fusion temperature. A total of 3299 compounds have been estimated on the basis of 128 functional groups. The original 192 hydrocarbons are not included in this total since most hydrocarbon groups have remained unchanged; neither are the 667 liquid crystals [2006ACR/CHI] and the 58 fluorinated compounds that are known to behave anisotropically as liquids. [2003CHI/ACR] Included are several new hydrocarbons in the 3299 compounds that comprise the current database and an additional 112 new compounds that have been added in this update. Of the 128 functional groups, 21 of them are based on only one entry. These entries were not included in generating the statistics. On the basis of the standard deviations obtained previously, ±11.2, ±13, ±18.6, and ±18 J·mol^{-1}·K^{-1}, estimations varying by more than 3 standard deviations were excluded from the database. An approximate value of ±50 J·mol^{-1}·K^{-1} was chosen as 3σ. Of the 3299 compounds, 131 of them exhibited deviations in excess of $\pm 3\sigma$ and all but four were eliminated from the database. The three materials in question exhibited deviations in excess of $\pm 3\sigma$ but fractional errors less than 0.06.

The standard deviation in the total phase change entropy and enthalpy associated with the 3151 compounds in the database is ±14.6 J·mol^{-1}·K^{-1} and ±5.7 kJ·mol^{-1}, respectively. Figures 6 and 7 illustrate the error distributions in both ΔS_{tpce} and ΔH_{tpce}. While the uncertainty in ΔS_{tpce} has been constrained to ±50 J·mol^{-1}·K^{-1}, the uncertainty in ΔH_{tpce} is also dependent on the presence of additional unreported solid–solid phase transitions. Figures 8 and 9 compare experimental and estimation values for both entropy and

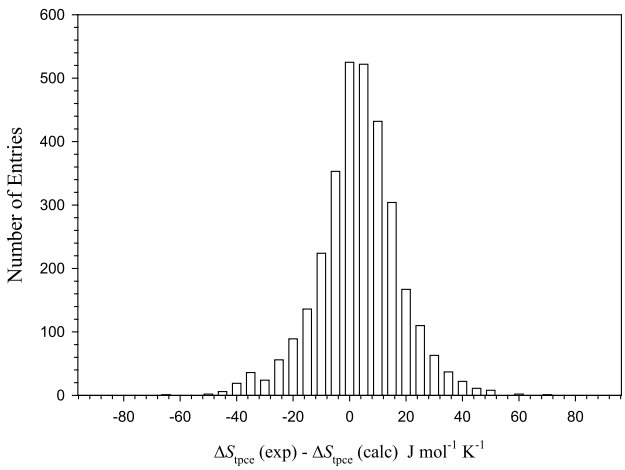


FIG. 6. Distribution of differences between $\Delta S_{tpce}(exp) - \Delta S_{tpce}$ (calc) for 3151 compounds. The standard deviation is ±14.6 J·mol^{-1}·K^{-1}.

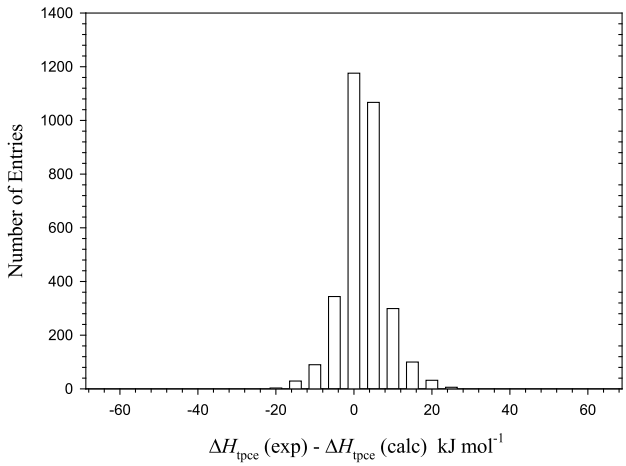


FIG. 7. Distribution of differences between $\Delta H_{tpce}(exp) - \Delta H_{tpce}$ (calc) for 3151 compounds. Experimental enthalpies include enthalpies associated with all solid–solid phase changes. Calculated enthalpies are obtained as the product of $\Delta S_{tpce}(calc)^{*}T_{fus}$. The standard deviation is ±5.7 kJ·mol^{-1}.

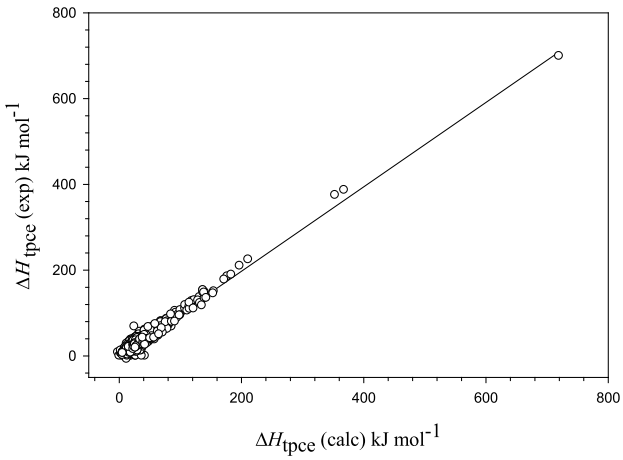


FIG. 9. A comparison of ΔH_{tpce} (exp) and ΔH_{tpce} (calc) for 3151 compounds. ΔH_{tpce} (calc) evaluated as the product of ΔS_{tpce} (calc)*T_{fus}. The equation of the line is given by ΔH_{tpce} (exp)/kJ mol^{-1} = 0.984*ΔH_{tpce} (calc) + 0.470; r^2 = 0.945.

enthalpy. The equations of the line are given below each caption. While most entropies in the database range from 10 to 200 J·mol^{-1}·K^{-1}, a few long chain n-alkanes have significantly large entropies and enthalpies as illustrated in Figures 8 and 9. Of the 3151 compounds in the database, 16% exhibited solid–solid phase changes. Analyzed separately, the 499 compounds with additional solid–solid phase transitions were reproduced with a standard error of ±14.9 J·mol^{-1}·K^{-1} and ±6.3 kJ·mol^{-1}, compared to standard deviations of ±14.4 J·mol^{-1}·K^{-1} and ±5.5 kJ·mol^{-1} for those compounds with no known solid–solid transitions.

5. The Phase Change Enthalpy Compendium, Paper II

This portion of the compendium completes a summary of literature reports of experimental phase changes of C_{11}–C_{192} organic, organo-metallic, and a few inorganic compounds and ionic liquids. As described previously, **o**rganic compounds and ionic liquids are arranged according to the Hill system. This also applies to ionic liquids. Organometallic compounds are segregated alphabetically according to the symbol of the metal but also arranged according to the Hill system. Inorganic compounds containing the same element follow and are arranged alphabetically and incrementally. Formulas for inorganic salts are generally arranged by the cation followed by the anion.

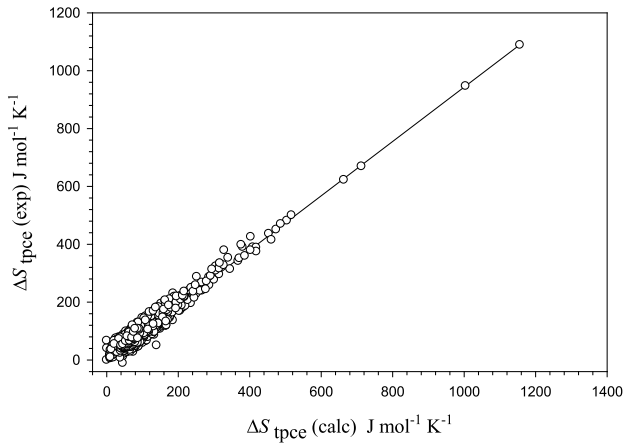


FIG. 8. A comparison of ΔS_{tpce} (exp) and ΔS_{tpce} (calc) for 3150 compounds. One n-alkane was omitted from this graph because of its large value, 1751.2 (exp), 1802.4 (calc) J·mol^{-1}·K^{-1} but is included in the statistics. The equation of the line is given by ΔS_{tpce} (exp)/J mol^{-1} K^{-1} = 0.959* ΔS_{tpce} (calc) + 2.13, r^2 = 0.949.

The molecular formula is provided in the first column of the first row of each individual material. This is usually followed by the Chemical Abstracts reference number in the second column and the chemical name. The chemical name is usually the name provided by the authors of the article. The remaining information in subsequent columns includes the phase transition (column 2), the temperature, or temperature range if any associated with the transition (column 3), the enthalpy associated with the transition (column 4), the mean temperature associated with the transition if measured over a temperature range (column 5), the acronym associated with the method of measurement (column 6), and reference to the source of information (column 7), usually to the original work. The acronyms used are defined in Table 9. If an entry is not provided in one of these columns, it is likely that the information was not available in the source consulted. For liquids, the vaporization enthalpy ($\Delta_v H$) in kJ·mol^{-1} follows the name in subsequent rows. For solids, depending on the nature of the material, the order of entry includes any solid–solid transitions available ($\Delta_{trs}H$), followed in subsequent rows by each available solid-to-liquid transition ($\Delta_{fus}H$), the sublimation enthalpies available ($\Delta_{sub}H$), and the vaporization enthalpies, if available. The enthalpies are identified in the data tables according to the type of transition, where TRS, FUS, SUB, and V denote solid–solid transitions, fusion, sublimation, and vaporization, respectively. Some enthalpy values are cited without an accompanying reference on the same line. In these cases the reference cited directly

TABLE 9. List of acronyms and descriptions for methods

A	Calculated from the vapor pressure data reported by the method of least squares
AC	Adiabatic calorimeter
B	Calculated from the difference of the enthalpies of sublimation at temperature T and fusion at the melting point.
BG	Bourdon gauge
BP	Boiling point temperature at different pressures
C	Calorimetric determination
CATH	Cathetometer
CC	Conduction calorimeter
CCM	Cooling curve method
CDG	Capacitance diaphragm gauge
CE	Critical evaluated value
CGC	Correlation-gas chromatography
CGC–DSC	Correlation gas chromatography combined with differential scanning calorimeter
CGC+Fus	Correlation gas chromatography and fusion
CR	Cryoscopy
CRT	Chromatographic retention time
CRYST	Crystallization
CVC	Calvet calorimeter
DBM	Dibutyl phthalate manometer
DC	Dynamic calorimeter
DFC	Differential calorimetry
DFM	Differential manometer
DFSC	Differential fast scanning calorimetry
DM	Diaphragm manometer
DP-LPD	Dew point low pressure distillation method
DRC	Drop calorimetry
DSC	Differential scanning calorimeter
DTA	Differential thermal analysis
E	Estimated value
EB	Ebulliometry
EM	Electronic manometer
EST	Estimated value
EV	Evaporation rates
F	Fluorescence
FPD	Freezing point depression
FPM	Freezing point method
FTIR	Fourier transform infrared spectroscopy
GC	Gas chromatography
GCC	Gas chromatography–calorimetry
GCRT	Gas chromatographic retention time
GC-RT	Gas chromatography retention time
GS	Gas saturation, transpiration
GSM	Glass spring manometer
HBG	Heise-Bourdon gauge
HFC	Heat flux calorimetry
HG	Heise gauge
HSA	Head space analysis
I	Isoteniscope
IP	Inclined piston manometry
IPM	Inclined piston manometry
IR	Infrared spectroscopy
ITG	Isothermal thermogravimetry
ITGA	Isothermogravimetric analysis
KG	Knudsen gauge
LE	Langmuir evaporation
MCV	Method of calibrated volume
MDSC	Modulated differential scanning calorimetry
ME	Mass effusion-Knudsen effusion
ME-MS	Mass effusion-mass spectrometry
MEM	Modified entrainment method
MG	McLeod gauge
MM	Mercury manometer
MS	Mass spectrometry
OM	Oil manometer
OP	Optical
PG	Pressure gauge
PGSM	Pressure gauge static method
QCM	Quartz crystal microbalance
QF	Quartz fiber
QM	Quartz manometer
QR	Quartz resonator
RC	Radiation calorimeter
RG	Rodebush gauge
RS	Recirculating still
SC	Solution calorimetry
S–F	Sublimation–fusion
SG	Spoon gauge
SMZG	Silicon membrane zero gauge
SRFG	Spinning rotor friction gauge
SRM	Spinning rotor manometer
Static	Static method
STG	Strain gauge
S–V	Sublimation–vaporization
T	Tensiometer
TA	Thermal analysis
TCC	Tin Calvet calorimeter
TCM	Thermal conductivity manometer
TE	Torsion effusion
TG	Thermal gravimetric
TGA	Thermal gravimetric analysis
TG-GS	Thermogravimetric based gas saturation method
TG-TS	Thermogravimetric transpiration method
THBC	Triple heat bridge calorimeter
TPD	Temperature programmed desorption
TPD-MS	Temperature program desorption combined with mass spectrometry
TPD-UV	Temperature program desorption combined with ultraviolet spectroscopy
TPTD	Temperature programmed thermal desorption
TRM	Thermoradiometric method
TSGC	Temperature scanning gas chromatography
U	Unreliable
UV	Ultraviolet spectroscopy
UV/VIS	Ultraviolet–visible spectroscopy
V	Visible spectroscopy
V+F	Vaporization+fusion
VG	Viscosity gauge
VP	Vapor pressure as a function of temperature
ZG	Zimmerli gauge

below should be consulted since multiple enthalpy values may have been taken from the same source, particularly for compounds with multiple solid–solid phase transitions. A brief note summarizing some peculiarity in the data is also provided for some compounds, particularly if the value reported appears to be unreliable, U (e.g., "U 66 ± 22.1").

The phase change enthalpies are divided by elemental composition. The first set of tables contain substituted-organic compounds. Tables 10–16 contain phase change enthalpies of C_{11}, C_{12}–C_{13}, C_{14}–C_{16}, C_{17}–C_{18}, C_{19}–C_{29}, C_{30}–C_{49}, and C_{50}–C_{192} organic compounds. Table 17 contains phase change enthalpies of organometallic and some inorganic compounds. Table 18 contains phase change enthalpies of ionic liquids.

TABLE 10. Phase change enthalpies of C_{11} organic compounds

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}F_{21}N_3$	[57731-09-6]	2,2,2-trifluoro-*N*-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-*N′*-[2,2,2-trifluoro-1-(trifluoromethyl)-1-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]ammo]ethyl] ethanimidamide				
	V		39.8			[1975PET/SHR3]
$C_{11}F_{22}$	[75169-50-5]	Perfluoro(1-methyl-4-*tert*-butylcyclohexane) (mix *cis* + *trans*)				
	V	(345–442)	45.8	360		[1999DYK/SVO]
$C_{11}F_{22}$		Perfluoro(1-methyl-4-*tert*-butylcyclohexane) (isomer not specified)				
	V		54.1 ± 0.5	298	EB	[1981VAR/BUL]
$C_{11}F_{24}O_2$	[678-38-6]	Octadecafluoro-1,9-bis(trifluoromethoxy)nonane				
	V	(293–353)	43.0	323		[1999DYK/SVO, 1964ROB]
$C_{11}H_4Cl_5NO_2$	[77765-41-4]	2,2,4-trichloro-5-[(3,4-dichlorophenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	87.5	468	GC	[1980SHA/SAD]
$C_{11}H_5BrCl_3NO_2$	[73373-59-8]	2,2,4-trichloro-5-[(2-bromophenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	67.5	468	GC	[1980SHA/SAD]
$C_{11}H_5BrCl_3NO_2$	[73373-60-1]	2,2,4-trichloro-5-[(3-bromophenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	78.1	468	GC	[1980SHA/SAD]
$C_{11}H_5BrCl_3NO_2$	[73373-61-2]	2,2,4-trichloro-5-[(4-bromophenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	82.9	468	GC	[1980SHA/SAD]
$C_{11}H_5Cl_4NO_2$	[73373-63-4]	2,2,4-trichloro-5-[(4-chlorophenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	86.2	468	GC	[1980SHA/SAD]
$C_{11}H_6N_4$	[6343-21-1]	Bicyclo[2.2.1]hept-5-ene-2,2,3,3-tetracarbonitrile				
	SUB		117.2 ± 5.4	408	MG	[1972ROG2, 1977PED/RYL]
$C_{11}H_7BrO_2$	[20717-79-7]	1-bromo-2-naphthoic acid				
	SUB	(340–401)	109.0 ± 2.7	370	ME	[2008GOL/SUU]
$C_{11}H_7N$	[86-53-3]	1-cyanonaphthalene				
	SUB		88.1 ± 1.7	298	C	[2011RIB/FER]
	SUB	(289–307)	88.6 ± 0.5	298	ME	[2011RIB/FER]
$C_{11}H_7N$	[613-46-7]	2-cyanonaphthalene				
	SUB		90.7 ± 1.6	298	C	[2011RIB/FER]
	SUB	(296–316)	91.8 ± 0.4	306	ME	[2011RIB/FER]
	SUB	(296–316)	92.1 ± 0.1	298	ME	[2011RIB/FER]
$C_{11}H_7NO_4$	[20000-96-8]	5-(2-nitrophenyl)-2-furancarboxy aldehyde				
	SUB	(346–363)	107.8 ± 6.7	298	ME	[2015DIB/SOB]
	V	(378–393)	78.5 ± 4.3	298	ME	[2015DIB/SOB]
$C_{11}H_7NO_4$	[13148-43-1]	5-(3-nitrophenyl)-2-furancarboxy aldehyde				
	SUB	(383–422)	132.5 ± 3.9	298	ME	[2015DIB/SOB]
$C_{11}H_7NO_4$	[7147-77-5]	5-(4-nitrophenyl)-2-furancarboxy aldehyde				
	SUB	(403–428)	135.9 ± 3.5	298	ME	[2015DIB/SOB]
$C_{11}H_7N_3$	[6023-46-7]	2,2-dicyano-3-phenylpropionitrile				
	FUS		29.29	411.2		[1994RAK/VER]
	SUB	(318–388)	96.2 ± 0.4	353	T	[1994RAK/VER]
$C_{11}H_7N_3$	[6023-46-7]	2,2-dicyano-1-phenylpropionitrile				
	V	(318–388)	66.9		B	[1994RAK/VER]
$C_{11}H_7N_3O_2S$	[186792-85-8]	2-[(2-nitrophenyl)amino]-3-thiophenecarbonitrile				
	FUS (red crystals)		30.4	407.8	DSC	
	FUS (orange crystals)		30.4	407.8	DSC	[2006LI/STO]
$C_{11}H_8F_3N_3O_7$	[185852-05-5]	2,3-dihydro-6-nitro-3-[2-(nitrooxy)ethyl]-7-(trifluoromethyl)-4*H*-1,3-benzoxazin-4-one				
	FUS		28.9	384.7	DSC	[1996FON/ROS]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_8N_2$	[244-63-3]	9*H*-pyrido[3,4-*b*]indole (norharmane)				
	FUS		25.5	471.5	DSC	[1996BUR/DAG]
	SUB	(353–389)	114.5 ± 2.0	371	ME	[2010GOL/SUU]
$C_{11}H_8N_4$	[13358-02-6]	3-methyl-1,1,2,2-tetracyanocyclohex-4-ene				
	SUB	(343–378)	82.0 ± 2.1	350	MG	[1971ROG, 1977PED/RYL]
$C_{11}H_8O$	[66-77-3]	1-formylnaphthalene				
	V		71.0 ± 1.7	298	C	[2014SIL/FRE]
$C_{11}H_8O_2$	[86-55-5]	1-naphthoic acid				
	FUS		25.78	434.8	DSC	[2008MOG/SEP]
	FUS		19.89	434.2	C	[1991ACR, 1979KHE/LAL]
	FUS		22.68		DSC	[1983HOL]
	SUB	(333–380)	109.9 ± 0.5	298	GS	[2003CHI/HIL]
	SUB		117.6 ± 0.4		DSC	[1983HOL]
	SUB	(340–360)	110.4 ± 0.2	355	ME	[1974COL/ROU, 1977PED/RYL, 1987STE/MAL]
	SUB		113.6	298	C	[1974SAB/GIL]
	V	(424–453)	99.5 ± 0.2	298	CGC	[2003CHI/HIL]
	V	(457–573)	97.2	472	A	[1987STE/MAL]
$C_{11}H_8O_2$	[93-09-4]	2-naphthoic acid				
	FUS		23.54	458.2	C	[1991ACR, 1979KHE/LAL]
	FUS		24.06		DSC	[1983HOL]
	SUB	(335–374)	114.9 ± 0.8	298	GS	[2003CHI/HIL]
	SUB		119.5 ± 0.6		DSC	[1983HOL]
	SUB	(347–363)	113.6 ± 0.8	365	ME	[1974COL/ROU, 1977PED/RYL, 1987STE/MAL]
	SUB		117.2	298	C	[1974SAB/GIL]
	V	(424–453)	101.1 ± 0.1	298	CGC	[2003CHI/HIL]
	V	(463–582)	98.9	478	A	[1987STE/MAL]
$C_{11}H_8O_2$	[708-06-5]	2-hydroxy-1-naphthaldehyde				
	SUB	(312–328)	98.0 ± 1.1	298	ME	[2015AMA/FRE]
$C_{11}H_8O_2$	[58-27-5]	2-methyl-1,4-naphthoquinone				
	FUS		20.33	380.2	DSC	[2016ZHA/WAN]
$C_{11}H_9Cl$	[86-52-2]	1-(chloromethyl)naphthalene				
	V	(423–565)	59.8	494		[1999DYK/SVO]
	V	(407–447)	U90.2	422	A	[1987STE/MAL]
$C_{11}H_9ClN_2O_3S$	[901348-33-2]	*N*-(3-chloro-2-pyridinyl)benzene sulfonamide				
	FUS		28.1	404.1	DSC	[2014PER/KAZ]
$C_{11}H_9ClN_2O_3S$	[546088-03-3]	*N*-(2-chloro-3-pyidinyl)benzene sulfonamide				
	FUS		37.6	426.2	DSC	[2014PER/KAZ]
	SUB	(357–407)	115.0 ± 1.0	298	GS	[2016VOL/BLO]
$C_{11}H_9ClN_4O_2$	[848893-02-7]	8-(3-chlorophenyl)-2,6,7,8-tetrahydroimidazo[2,1-*c*][1,2,4]triazine-3,4-dione				
	FUS		22.68	578.2	DSC	[2016BAR/SZT]
$C_{11}H_9Cl_2NO_2$	[101-27-9]	4-chlorobut-2-ynyl 3-chlorophenylcarbamate				
	FUS		26.91	344.1	DSC	[1990DON/DRE]
$C_{11}H_9ClN_4O$	[907967-95-7]	2-acetylpyridine *O*-(6′-chloropyrimidin-4′-yl)oxime				
	FUS		29	370.5	DSC	[2013PER/KAZ]
$C_{11}H_9N$	[1008-89-5]	2-phenylpyridine				
	V		68.4 ± 1.9	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
	V		68.7 ± 4.6	298	CGC	[2000RIB/MAT2]
	V		63.2		GC	[1996GOV/RUT]
$C_{11}H_9N$	[1008-88-4]	3-phenylpyridine				
	V		68.4 ± 1.6	298	CGC	[2009LIP/CHI, 2009LIP/HAN]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V		64.5 ± 4.5	298	CGC	[2000RIB/MAT2]
$C_{11}H_9N$	[939-23-1]	4-phenylpyridine				
	FUS		19.95	346.9	DSC	[2000RIB/MAT2]
	SUB		81.4 ± 1.6	298	C,CGC	[2000RIB/MAT2]
	SUB		80.2 ± 1.8	298	C	[2000RIB/MAT2]
	V		68.4 ± 3.5	298	CGC	[2000RIB/MAT2]
	V		63.3		GC	[1996GOV/RUT]
$C_{11}H_9NO_2$	[1631-28-3]	1-(4-methylphenyl)-1*H*-pyrrole-2,5-dione				
	SUB	(350–370)	104.6 ± 0.8		C	[1998KIS/KAS]
$C_{11}H_9NO_3$	[1081-17-0]	1-(4-methoxphenyl)-1*H*-pyrrole-2,5-dione				
	SUB	(350–370)	121.1 ± 0.8		C	[1998KIS/KAS]
$C_{11}H_9NO_5$	[78209-93-5]	1-actylvinyl 4-nitrobenzoate				
	FUS		34.8	384.9	DSC	[2015ROJ/VAL]
	SUB		127.0 ± 1.0	346	ME	[2015ROJ/VAL]
	SUB		131.0 ± 1.1	298	ME	[2015ROJ/VAL]
$C_{11}H_{10}$	[90-12-0]	1-methylnaphthalene				
	TRS	(12–352)	4.98	240.7		[1996DOM/HEA]
	FUS	(12–352)	6.95	242.7	AC	[1957MCC/FIN2]
	V	(343–423)	65.1 ± 1.1	298	GC	[2006HAF/PAR]
	V	(294–324)	60.1 ± 0.8	298	GS	[2003VER]
	V	(323–473)	62.4	298	GC	[2002LEI/CHA]
	V	(485–595)	50.0	500		[1992LEE/DEM]
	V	(259–388)	63.3	274		[1988SAS/JOS]
	V	(424–593)	49.6	455		[1981WIE/KOB]
	V	(424–593)	45.9	525		[1981WIE/KOB]
	V	(278–313)	57.5	293	A, GS	[1987STE/MAL, 1979MAC/PRA]
	V		57.3 ± 0.4	298	C	[1974SAB/CHA2]
	V	(415–526)	52.3	430	A, GS	[1987STE/MAL, 1955CAM/ROS]
$C_{11}H_{10}$	[91-57-6]	2-methylnaphthalene				
	FUS		11.8	306.9	DSC	[2000MAR/MIK]
	TRS	(11–366)	5.61	288.5		
	FUS	(11–366)	12.13	307.7	AC	[1996DOM/HEA, 1957MCC/FIN2]
	FUS		12.04	307.8	C	[1955TUN/STO]
	FUS		11.97	307.2	C	[1996DOM/HEA, 1931HUF/PAR]
	SUB		65.7 ± 0.85	298	C	[1974SAB/CHA2]
	SUB		61.7 ± 1.7	298		[1968KAR/RAB, 1977PED/RYL, 1974SAB/CHA2]
	V	(424–639)	48.4	465		[1981WIE/KOB]
	V	(424–639)	46.4	505		[1981WIE/KOB]
	V	(423–515)	51.2	438	A, GS	[1987STE/MAL, 1955CAM/ROS]
$C_{11}H_{10}BrNO_2$	[5460-29-7]	*N*-(3-bromopropyl)phthalimide				
	SUB		116.0 ± 1.0	298	C	[2007RIB/SAN3]
$C_{11}H_{10}N_2O$	[72583-92-7]	2-(2-benzofuryl) Δ-2-imidazoline				
	FUS (I)		25.95	412.7		
	FUS (II)		28.53	420.3	DSC	[2001LEG/BAZ]
$C_{11}H_{10}N_2O_3$	[13297-17-1]	2-methyl-3-acetylquinoxaline-1,4-dioxide				
	SUB		117.0 ± 2.4	298	ME	[1997ACR/POW]
$C_{11}H_{10}N_2O_3$	[40016-70-4]	2-methyl-3-carboxymethoxyquinoxaline-1,4-dioxide				
	SUB		118.3 ± 2.6	298	C	[1997ACR/POW]
$C_{11}H_{10}N_2O_3$	[61522-53-0]	3-(methoxycarbonyl)-2-methoxyquinoxaline-1-oxide				
	SUB		118.1 ± 3.3	298	C	[2009GOM/MON]
$C_{11}H_{10}N_4$	[2215-33-0]	2-pyridinylhydrazone-(2-pyridinecarboxyaldehyde)				
	FUS		28	455.3	DSC	[2013PER/KAZ]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{10}N_4$	[63697-67-6]	Pyridine-3-aldehyde pyridin-2′-ylhydrazone				
	FUS		34	449.0	DSC	[2013PER/KAZ]
$C_{11}H_{10}N_4O_2$	[848892-90-0]	2,6,7,8-tetrahydro-8-phenylimidazo[2,1-*c*][1,2,4]triazine-3,4-dione				
			26.13	574.2	DSC	[2016BAR/SZT]
$C_{11}H_{10}O$	[4780-79-4]	1-naphthalenemethanol				
	FUS		15.57	333.0	DSC	[2008MOG/SEP]
	SUB		102.3 ± 1.9	298	C	[2007MAT/MOR]
$C_{11}H_{10}O$	[1592-38-7]	2-naphthalenemethanol				
	SUB		106.0 ± 2.1	298	C	[2007MAT/MOR]
$C_{11}H_{10}O$	[2216-69-5]	1-methoxynaphthalene				
	V		68.0 ± 1.5	298	C	[2014SIL/FRE]
$C_{11}H_{10}O_2$	[2958-72-7]	Pentacyclo[5.4.0^{2,6}0^{3,10}0^{5,9}]undecane-8,11-dione				
	TRS	(270–520)	0.32	309.8		
	TRS	(270–520)	9.61	345.3		
	FUS	(270–520)	5.23	516.8	DSC	[1999JIM/ROU]
	TRS		32.14	365.9		
	FUS		3.94	516.8	DSC	[1984WEI/LEF]
[Note: There is a large difference in the experimental enthalpies and transition temperature reported by the two research groups for the solid/solid transition around 355 K.]						
	SUB	(326–341)	92.3 ± 1.0	333	ME	[1999JIM/ROU]
	SUB	(326–341)	92.6 ± 1.0	298	ME	[1999JIM/ROU]
$C_{11}H_{10}O_2$	[711-79-5]	2-acetyl-1-naphthol				
	FUS		22.52	371.8	DSC	[1991ACR, 1990DOM]
$C_{11}H_{10}O_2$	[574-19-6]	1-acetyl-2-naphthol				
	FUS		21.34	336.9	DSC	[1991ACR, 1990DOM]
$C_{11}H_{10}O_3$	[6295-35-8]	6-methoxy-4-methylcoumarin				
	FUS		33.31	436.1	DSC	[2011AMA/PIN]
$C_{11}H_{10}O_4$	[15721-10-5]	*p*-methacryloyloxybenzoic acid				
	FUS		34.0	455		[1996DOM/HEA, 1984LEB/LEB]
$C_{11}H_{11}Cl_3O_3$	[1928-40-1]	2,4,5-trichlorophenoxyacetic acid, propyl ester				
	V	(444–573)	83.2	459	A	[1987STE/MAL, 1999DYK/SVO]
$C_{11}H_{11}Cl_3O_3$	[25333-21-5]	Methyl 2-(2,4,5-trichlorophenoxy)butyrate				
	FUS		28.87	316.5	DSC	[1969PLA/GLA]
$C_{11}H_{11}F_3N_2O_3$	[13311-84-7]	2-methyl-*N*-[4-nitro-3-(trifluoromethyl)phenyl]propanamide (flutamide)				
	FUS		28.4	383.1	DSC	[2015NUR/BOO]
$C_{11}H_{11}N$	[1198-37-4]	2,4-dimethylquinoline				
	V	(458–543)	56.3	473	A	[1987STE/MAL, 1964MAL/WEC]
$C_{11}H_{11}N$	[877-43-0]	2,6-dimethylquinoline				
	FUS		20.4	330.8	AC,DSC	[2007CHI/JOH]
	SUB		84.5 ± 1.5	298	C	[1995RIB/MAT3]
	V	(337–591)	64.0 ± 0.1	340	IPM,EB	[2007CHI/JOH]
	V	(337–591)	61.1 ± 0.1	380	IPM,EB	[2007CHI/JOH]
	V	(337–591)	58.4 ± 0.1	420	IPM,EB	[2007CHI/JOH]
	V	(337–591)	55.7 ± 0.1	460	IPM,EB	[2007CHI/JOH]
	V	(337–591)	53.0 ± 0.1	500	IPM,EB	[2007CHI/JOH]
	V	(337–591)	50.0 ± 0.2	540	IPM,EB	[2007CHI/JOH]
	V	(337–591)	46.8 ± 0.4	580	IPM,EB	[2007CHI/JOH]
	V	(337–591)	67.1 ± 0.2	298	IPM,EB	[2007CHI/JOH]
	V	(461–541)	55.7	476	A	[1987STE/MAL, 1964MAL/WEC]
$C_{11}H_{11}N$	[93-37-8]	2,7-dimethylquinoline				

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	SUB		87.5 ± 1.5	298	C	[1995RIB/MAT3]
$C_{11}H_{11}NO_2$	[5323-50-2]	*N*-propylphthalimide				
	SUB		98.2 ± 1.4	298	C	[2006RIB/SAN]
$C_{11}H_{11}NO_2$	[3770-50-1]	Ethyl 1*H*-indole-2-carboxylate				
	SUB	(326–348)	110.7 ± 0.6	337	ME	[2016CAR/AMA]
	SUB	(326–348)	112.2 ± 0.6	298	ME	[2016CAR/AMA]
$C_{11}H_{11}N_3O_2S$	[144-83-2]	4-amino-*N*-2-pyridmylbenzenesulfonamide (sulfapyridine)				
	FUS		33.3	464.8	DSC	[2014MAN/MAH]
	FUS		44.06	464.0	DSC	[2010MIY/KHA]
	FUS		40.47	462.7	DSC	[2003MAR/AVI, 2002MAR/GOM, 2001MAR/GOM]
$C_{11}H_{11}N_3O_2S$	[1200143-14-1]	6-amino-2-phenylsulfonylimino-1,2-dihydropyridine				
	FUS (I)		49.41	510.0		
	FUS (II)		40.00	498.0		
	FUS (III)		45.69	508.4	DSC	[2009ROY/MAT]
$C_{11}H_{11}N_3O_8$	[53848-90-1]	Butyl 2,4,6-trinitrobenzoate				
	TRS		2.5	360		
	FUS		28.13	395.2	DSC	[1974WAR/WIL]
$C_{11}H_{12}BrN_5O_3$	[244272-55-7]	2-bromo-6-methyl-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	FUS		50.44	474.3	DSC	[1999ZIE/GOL]
$C_{11}H_{12}Br_3O_4P$	[51489-36-2]	1,3,2-dioxphosphorinane-5,5-dimethyl-2-(2,4,6-tribromophenoxy)-2-oxide				
	FUS		31.3	460.4	DSC	[2013SUN/WAN]
$C_{11}H_{12}ClN_3OS$	[1361124-41-5]	5-[(4-chlorophenyl)amino]-α-methyl-1,2,4-thiazole-3-ethanol				
	FUS		32.1	408.4	DSC	[2013SUR/BUI]
	SUB	(361–393)	128.9 ± 2.5	378	GS	[2013SUR/BUI]
	SUB	(361–393)	132.6 ± 2.5	298	GS	[2013SUR/BUI]
$C_{11}H_{12}ClN_3OS$	[1361124-49-3]	5-[(3-chlorophenyl)amino]-α-methyl-1,2,4-thiazole-3-ethanol				
	FUS		35.0	390.2	DSC	[2013SUR/BUI]
	SUB	(355–380)	112.4 ± 2.1	368	GS	[2013SUR/BUI]
	SUB	(355–380)	115.6 ± 2.1	298	GS	[2013SUR/BUI]
$C_{11}H_{12}Cl_2N_2O_5$	[56-75-7]	2,2-dichloro-*N*-[2-hydroxy-1-(hydroxymethyl)-2-(4-nitrophenyl)ethyl]acetamide (chloramphenicol)				
	FUS		41.5	425.0	DSC	[2006MAR/STA]
$C_{11}H_{12}Cl_2O_3$	[94-11-1]	2,4-dichlorophenoxyacetic acid, isopropyl ester				
	V	(460–573)	69.5	475	A	[1987STE/MAL, 1999DYK/SVO]
	V	(444–573)	65.7	508	GC	[1966JEN/SCH]
$C_{11}H_{12}Cl_2O_3$	[1928-61-6]	2,4-dichlorophenoxyacetic acid, propyl ester				
	V	(444–573)	77.3	459	A	[1987STE/MAL, 1999DYK/SVO]
	V	(444–573)	69.1	508	GC	[1966JEN/SCH]
$C_{11}H_{12}Cl_2O_3$	[18625-12-2]	4-(2,4-dichlorophenoxy)butanoic acid, methyl ester				
	FUS		22	309.7	DSC	[2005VEC/BRU]
	FUS		32.64	309.6	DSC	[1969PLA/GLA]
$C_{11}H_{12}Cl_2O_4$	[28191-20-0]	2,4-dichlorophenoxyacetic acid, 3-hydroxypropyl ester				
	V	(463-483)	72.1	473	A	[1987STE/MAL, 1999DYK/SVO]
$C_{11}H_{12}I_3NO_2$	[17879-97-9]	(−) 3-[3-(amino-2,4,6-triiodophenyl]-2-ethylpropanoic acid (iopanoic acid)				
	FUS		25.98	438.8	DSC	[1999LI/ZEL]
$C_{11}H_{12}I_3NO_2$	[96-83-3]	(±) 3-[3-(amino-2,4,6-triiodophenyl]-2-ethylpropanoic acid (iopanoic acid)				
	FUS		30.0	425.6	DSC	[2010MUR/PIK2]
	FUS		27.7	427	DSC	[1999LI/ZEL]
$C_{11}H_{12}NO_3PS$	[732-11-6]	*O*,*O*-dimethyl-*S*-phthalimidomethyl phosphorodithioate				
	FUS		26.96	343.2	DSC	[1990DON/DRE]
$C_{11}H_{12}N_2O$	[60-80-0]	1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one (antipyrine)				

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		25.18	384.0	DSC	[2010BAI/VAN]
	FUS		24.5	383.7	DSC	[2002SCH/LEN]
	FUS		24.52	385.8		[1985OHM/LIP]
$C_{11}H_{12}N_2OS_2$	[102-77-2]	2-(4-morpholinothio)benzothiazole				
	FUS (I)		12.97	345		
	FUS (II)		17.99	357	DSC	[1978GUZ/LAR]
$C_{11}H_{12}N_2O_2$	[73-22-3]	(*l*)-tryptophane				
	SUB		184.4 ± 2.3	450	ME,MS	[2014TYU/KRA]
	SUB		186.6 ± 4.1	298	ME,MS	[2014TYU/KRA]
	SUB	(340–440)	U 87.9 ± 8	390	LE	[1977GAF/PIE]
$C_{11}H_{12}N_2O_3$	[20771-72-6]	4-[(4-nitrophenyl)amino]pent-3-ene-2-one				
	SUB		121.9 ± 3.9	298	C	[1993RIB/RIB]
$C_{11}H_{12}N_2O_5$	[143248-64-0]	2,3-dihydro-6-methyl-3-[2-(nitrooxy)ethyl]-4*H*-1,3-benzoxazin-4-one				
	FUS		27.1	351.2	DSC	[1996FON/ROS]
$C_{11}H_{12}N_4O_2S$	[127-79-7]	2-(4-aminobenzenesulfonamido)-4-methylpyrimidine (sulfamerazine)				
	FUS		41.3	508.5	DSC	[2003MAR/AVI, 2002MAR/GOM, 2001MAR/GOM]
	FUS		41.1	509.7	DTA	[1986MAU/RAM]
	FUS		45.8	506.4	DSC	[1983KHA]
	FUS		31.6	515.2	DTA	[1971SUN/EIS]
$C_{11}H_{12}N_4O_3S$	[80-35-3]	4-amino-*N*-(6-methoxy-3-pyridazinyl)benzenesulfonamide (sulphamethoxypyridazine)				
	FUS		22.3	453.4	DSC	[1995BUS/ESC]

[Note: Authors of [1995BUS/ESC] state that the solute was tested for purity in a differential scanning calorimeter (DSC) and the experimental heat and temperature of fusion were 22.3 kJ mol^{-1} and 453.4 K, respectively. Later in the paper refer to the same numerical value as the heat of fusion at 298 K.]

	FUS		33.9	453.6	DSC	[1994ESC/BUS]
	FUS		32.47	453.2	DSC	[1985MAU/RAM]
$C_{11}H_{12}NO_3S$	[152-47-6]	4-amino-*N*-(3-methoxy-2-pyrazinyl)benzenesulfonamide (sulfamethoxypyrazine)				
	FUS		32.4	448.4	DSC	[2013PER/RYZ]
	SUB		130.4 ± 1.3	298	GS	[2013PER/RYZ]
$C_{11}H_{12}O$		2-ethylidiene-3-phenylpropanal				
	V	(333–374)	73.6	348	A	[1987STE/MAL]
$C_{11}H_{12}O$	[826-73-3]	1-benzosuberone				
	V		69.0 ± 1.7	298	C	[2010MIR/MOR]
$C_{11}H_{12}O_2$	[2495-37-6]	Benzyl methacrylate				
	V	(347–431)	70.5	362	A	[1987STE/MAL]
$C_{11}H_{12}O_2$	[103-36-6]	Ethyl cinnamate				
	V		70.4 ± 1.4	298	CGC	[2015KOZ/GOB]
	V	(453–544)	57.8	468	A	[1987STE/MAL]
$C_{11}H_{12}O_2$	[5331-64-6]	1-phenyl-1,3-pentanedione				
	V	(371–550)	64.6	386	A	[1987STE/MAL]
$C_{11}H_{12}O_2$	[39522-76-4]	1-phenyl-4,7-dioxaspiro[2.4]heptane				
	FUS		22.6	303.1	DSC	[1998VER/PEN]
	SUB		91.8 ± 0.8	298		[1998VER/PEN]
	V	(307–333)	71.3 ± 0.7	298	GS	[2002VER]
	V	(288–302)	69.6 ± 0.7		GS	[1998VER/PEN]
$C_{11}H_{12}O_2$	[40317-63-3]	4-carboxymethylpentacyclo [4.3.0.0.^{2,5}0^{4,7}]nonane				
	V	(303–343)	80.0 ± 1.7	333		[1984BEC/RUC]
$C_{11}H_{12}O_2$	[33892-75-0]	3,4-dihyro-5-methoxy-1(2*H*)-naphthalenone				
	FUS		22.2	362.5	DSC	[2009MAT/SOU2]
	SUB		97.9 ± 0.4	298	C	[2009MAT/SOU2]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{12}O_2$	[1078-19-9]	3,4-dihyro-6-methoxy-1(2*H*)-naphthalenone				
	FUS		22.8	351.3	DSC	[2009MAT/SOU2]
	SUB		104.7 ± 0.9	298	C	[2009MAT/SOU2]
$C_{11}H_{12}O_2$	[6836-19-7]	3,4-dihyro-7-methoxy-1(2*H*)-naphthalenone				
	FUS		23.2	334.8	DSC	[2009MAT/SOU2]
	SUB		103.1 ± 0.9	298	C	[2009MAT/SOU2]
$C_{11}H_{12}O_3$	[94-02-0]	Benzoylacetic acid, ethyl ester				
	V	(380–538)	72.1	395	A	[1987STE/MAL]
$C_{11}H_{12}O_3$	[607-91-0]	Myristicin				
	V	(368–553)	61.2	383	A	[1987STE/MAL]
$C_{11}H_{12}O_3$	[737776-59-9] or [737776-68-0]	2-piperonylpropanal				
	V	(373–423)	74.5	388	A	[1987STE/MAL]
$C_{11}H_{12}O_4$	[581-55-5]	Phenylmethylenediacetate				
	FUS		26.31	318.2	DSC	[1996VER/PEN]
	SUB	(348–388)	97.2 ± 0.8	298	V+ F	[1996VER/PEN]
	V	(348–388)	69.9 ± 0.8	298	GS	[1996VER/PEN]
$C_{11}H_{12}O_4$	[2309-07-1]	Methyl 4′-hydroxy-3′-methoxycinnamate (methyl ferulate)				
	FUS		25.84	335.7	DSC	[2010PAN/SAR]
	V	(340–376)	93.2 ± 0.4	358	GS	[2016EME/YER]
	V	(340–376)	99.8 ± 0.6	298	GS	[2016EME/YER]
$C_{11}H_{12}O_4$	[7345-82-6]	*trans*-2,3-dimethoxycmnamic acid				
	SUB	(380–392)	141.0 ± 0.9	298	ME	[1999MON/HIL]
$C_{11}H_{12}O_4$	[16909-09-4]	*trans*-2,4-dimethoxycinnamic acid				
	SUB	(391–404)	149.2 ± 1.3	298	ME	[1999MON/HIL]
$C_{11}H_{12}O_4$	[10538-51-9]	*trans*-2,5-dimethoxycmnamic acid				
	SUB	(376–391)	138.8 ± 1.1	298	ME	[1999MON/HIL]
$C_{11}H_{12}O_4$	[2316-26-9]	*trans*-3,4-dimethoxycinnamic acid				
	SUB	(390–404)	149.9 ± 0.8	298	ME	[1999MON/HIL]
$C_{11}H_{12}O_4$	[16909-11-8]	*trans*-3,5-dimethoxycinnamic acid				
	SUB	(385–397)	141.4 ± 0.5	298	ME	[1999MON/HIL]
$C_{11}H_{13}ClF_3N_3O_4S_3$	[346-18-9]	6-chloro-3,4-dihydro-2-methyl-3-[(2,2,2-trifluoroethyl)thio]methyl-2*H*-1,2,4-benzothiadiazme-5-sulfonamide-1,1-dioxide (polythiazide)				
	FUS		42.67	493.2	DSC	[2000HAN/PAR]
$C_{11}H_{13}ClO_3$	[94-81-5]	4-(4-chloro-2-methylphenoxy)butanoic acid				
	FUS		32.02	373.5	DSC	[1990DON/DRE]
$C_{11}H_{13}Cl_3$	[61468-36-8]	4-*tert*-butyl-2,3,6-trichlorotoluene				
	V	(423–570)	62.7	438	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_{11}H_{13}F_3N_2O_3S$	[53780-34-0]	5′-(trifluoromethanesulphonamide)acet-2′,4-xylidide				
	FUS		37.66	457.3	DSC	[1990DON/DRE]
$C_{11}H_{13}F_3N_4O_4$	[29091-05-2]	N^3,N^3-diethyl-2,4-dinitro-6-(trifluoromethyl)-1,3-benzenediamine				
	FUS		29.13	372.1	DSC	[1990DON/DRE]
$C_{11}H_{13}NO$	[14091-93-1]	(*E*)-3-(methylamino)-1-phenyl-but-2-en-1-one				
	SUB		99.2 ± 4.2	298	C	[1993RIB/RIB]
$C_{11}H_{13}NO$	[7294-89-5]	4-phenylaminopent-3-ene-2-one				
	SUB		89.9 ± 3.8	298	C	[1993RIB/RIB]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{13}NO_3$	[74784-71-7]	(*R*)-3-(1*H*-indoloxy)-1,2-propanediol				
	FUS		34.7	394.7	DSC	[2013BRE/GUB]
$C_{11}H_{13}NO_3$	[61212-32-6]	3-(1*H*-indoloxy)-1,2-propanediol				
	FUS		20.8	370.7	DSC	[2013BRE/GUB]
$C_{11}H_{13}NO_3$	[1552-96-1]	3-(4-dimethylaminophenyl)acrylic acid				
	SUB	(397–426)	139.7 ± 6.7	411	ME	[2014DIB/RAE]
	SUB	(397–426)	144.5 ± 6.7	298	ME	[2014DIB/RAE]
$C_{11}H_{13}NO_4$	[22781-23-3]	2,3-isopropylidenedioxyphenyl-*N*-methylcarbamate				
	FUS		29.45	402.6	DSC	[1990DON/DRE]
$C_{11}H_{13}N_3OS$	[1245618-40-9]	1-[(5-phenylamino)-1,2,4-thiadiazol-3-yl]-2-propanol				
	FUS		24.0	375.4	DSC	[2010PER/VOL]
	SUB	(342–364)	123.8 ± 1.1	298	GS	[2010PER/VOL]
$C_{11}H_{13}N_3O_3S$	[127-69-5]	3,4-dimethylisoxazol 5-sulphanylamide				
	FUS		8.41	448.2	DSC	[1996CIO/MEL]
$C_{11}H_{13}N_5O_3$	[114199-19-8]	6-methyl-3,9-dihydro-3-[(2-hydroxy ethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-α]pyrine				
	FUS		36.06	465.4	DSC	[1999ZIE/GOL]
$C_{11}H_{13}N_9O_4$	[1258314-91-8]	1,1′-(2,5-pyridinediyl)bis(2-nitriminoimidazolidine)				
	FUS		22.22	423.9	DSC	[2011CAI/XIA]
$C_{11}H_{14}$	[4912-92-9]	1,1-dimethylindane				
	FUS	(11–389)	11.99	227.4	AC	[1996DOM/HEA, 1981LEE/FIN]
	V	(313–348)	50.1	328	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(313–467)	50.5	328	A,IPM,EB	[1987STE/MAL]
	V	(387–467)	45.9	402	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(313–467)	51.9 ± 0.3	298	IPM,EB	[1978OSB/SCO]
$C_{11}H_{14}$	[1685-82-1]	4,6-dimethylindane				
	FUS	(12–370)	12.88	256.5	AC	[1996DOM/HEA, 1981LEE/FIN]
	V	(313–467)	56.9	328	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(313–363)	56.4	328	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(415–467)	50.3	430	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(313–467)	57.9 ± 0.4	298	IPM,EB	[1978OSB/SCO]
$C_{11}H_{14}$	[6682-71-9]	4,7-dimethylindane				
	FUS	(13–394)	13.52	272.7	AC	[1996DOM/HEA, 1981LEE/FIN]
	V	(313–470)	54.7	328	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(313–363)	56.9	328	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(417–470)	50.6	432	A,IPM,EB	[1987STE/MAL, 1978OSB/SCO]
	V	(313–470)	58.3 ± 0.4	298	IPM, EB	[1978OSB/SCO]
$C_{11}H_{14}$	[2055-40-5]	4-isopropylstyrene				
	V	(408–478)	48.5	423	A	[1987STE/MAL, 1949DRE/SHR]
$C_{11}H_{14}$	[17498-71-4]	α-isopropylstyrene				
	V	(278–318)	53.3 ± 0.3	298	GS	[1999VER/EBE]
$C_{11}H_{14}$	[2809-64-5]	5-methyl-1,2,3,4-tetrahydronaphthalene				
	V	(416–508)	53.4	431	A	[1987STE/MAL, 1941MAI/STR]
$C_{11}H_{14}$	[1680-51-9]	6-methyl-1,2,3,4-tetrahydronaphthalene				
	V	(411–502)	53.7	426	A	[1987STE/MAL, 1941MAI/STR]
$C_{11}H_{14}$	[3937-24-4]	2,4,5-trimethylstyrene				
	V	(352–490)	56.4	367	A	[1987STE/MAL, 1949BUC/COL]
$C_{11}H_{14}$	[769-25-5]	2,4,6-trimethylstyrene				
	V	(362–483)	50.9	377	A	[1987STE/MAL, 1949BUC/COL]
$C_{11}H_{14}$	[4421-32-3]	Pentacyclo[5.4.$0^{2,6}$ 0^{3},10 0^{5},9]undecane				
	TRS	(5–320)	4.86	164.4	AC	

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS	(300–480)	6.38	475.8	C	[1995KAB/KOZ]
	SUB		54.7 ± 0.9	337	C	[1995KAB/KOZ]
	SUB	(273-323)	54.9 ± 1.1	298	ME	[1995KAB/KOZ]
$C_{11}H_{14}ClNO$	[1918-16-7]	2-chloro-*N*-isopropyl-*N*-phenylacetamide				
	FUS		26.05	351.4	DSC	[1990DON/DRE]
$C_{11}H_{14}C_{12}$	[61468-35-7]	4-*tert*-butyl-2,5-dichlorotoluene				
	V	(395–538)	57.0	410	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_{11}H_{14}N_2$	[4886-30-0]	1-butylbenzimidazole				
	V	(328–375)	83.4 ± 0.3	298	GS	[2012GAR/VER]
$C_{11}H_{14}N_2O_2$	[718-36-5]	4-nitrobenzylidene *tert*-butylamine				
	SUB		91.1 ± 3.1	298	C	[1989ACR/KIR]
$C_{11}H_{14}N_2O_2$	[128478-71-7]	2-cyano-2-nitroadamantane				
	FUS		4.98	470.2	DSC	[1990FRI/DOG]
[Note: Entropy seems low. Compound may have lower temperature phase transitions.]						
	SUB	(307–368)	70.0 ± 1.9	338	T	[1990FRI/DOG]
$C_{11}H_{14}N_2O_3$	[3585-88-4]	4-nitrobenzylidene *tert*-butylamine *N*-oxide				
	SUB		116.5 ± 3.1	298	C	[1989ACR/KIR]
$C_{11}H_{14}N_2O_4$	[204189-06-0]	3-nitro-3-(4-nitrophenyl)pentane				
	FUS		20.29		DSC	[1997VER3]
	SUB		110.8 ± 0.8	298	F + V	[1997VER3]
	V	(321–358)	88.0 ± 0.8	340	GS	[1997VER3]
	V	(321–358)	90.5 ± 0.8	298	GS	[1997VER3]
$C_{11}H_{14}N_4O_9$	[165262-94-2]	1-(trinitromethyl)-3-nitrateadamantane				
	SUB		125.0 ± 2.0	298	C	[2001MAT/LEB]
$C_{11}H_{14}O$	[938-16-9]	*tert*-butyl phenyl ketone				
	V	(330–493)	55.5	345	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O$	[24569-60-6]	2-ethyl-3-phenylpropanal				
	V	(343–388)	64.6	358	A	[1987STE/MAL]
$C_{11}H_{14}O$	[582-62-7]	Isobutyl phenyl ketone				
	V	(331–501)	55.7	346	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O$		2,3,5-trimethylacetophenone				
	V	(352–557)	57.9	367	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O_2$	[18523-34-7]	1,1-dimethoxy-2-phenylcyclopropane				
	V	(278–313)	63.9 ± 0.6		GS	[1998VER/PEN]
$C_{11}H_{14}O_2$	[122-72-5]	3-acetoxy-1-phenylpropane				
	V	(293–333)	74.3	306	A	[1987STE/MAL]
	V	(392–516)	56.8	402		[1986CIH/VOJ]
$C_{11}H_{14}O_2$	[21009-92-7]	2-acetyl-3,5-dimethylanisole				
	FUS		0.99	323.2	DTA	[1989SAL/ABA]
[Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent.]						
$C_{11}H_{14}O_2$	[120-50-3]	Butyl benzoate				
	V	(374–474)	63.2	394	BG	[1988KAT2]
	V	(374–474)	55.7	452	BG	[1988KAT2]
	V	(343–405)	59.1	358	A	[1987STE/MAL]
$C_{11}H_{14}O_2$	[93-16-3]	1,2-dimethoxy-4-(1-propenyl)benzne				
	V	(358–521)	61.9	373	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O_2$	[136-60-7]	Isobutyl benzoate				
	V	(370–467)	60.4	393	BG	[1988KAT2]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(370–467)	54.4	449	BG	[1988KAT2]
	V	(291–300)	58.1	295	A	[1987STE/MAL]
	V	(338–510)	57.1	353	A	[1987STE/MAL, 1947STU]
$C_{11}H_{14}O_2$	[2510-99-8]	Ethyl 2-phenylpropionate				
	V	(293–329)	63.2 ± 0.3	311	GS	[1999VER8]
	V	(293-329)	64.0 ± 0.3	298	GS	[1999VER8]
$C_{11}H_{14}O_2$	[122-70-3]	Phenethyl propionate				
	V		65.6 ± 1.6	298	CGC	[2015KOZ/GOB]
$C_{11}H_{14}O_2$	[53917-01-4]	1-(4-methoxy phenyl)-2-butanone				
	V	(373–443)	62.6	388	A	[1987STE/MAL]
$C_{11}H_{14}O_2$	[2270-20-4]	5-phenylvaleric acid				
	FUS		23.4	332	DSC	[2001MON/HIL]
	SUB	(315–327)	118.5 ± 0.8	321	ME	[2001MON/HIL]
	SUB	(315–327)	119.4 ± 1.1	298	ME	[2001MON/HIL]
$C_{11}H_{14}O_2$	[1077-58-3]	2-*tert*-butylbenzoic acid				
	SUB	(306–322)	99.8 ± 0.4	315	ME	[1979COL/JIM]
$C_{11}H_{14}O_2$	[7498-54-6]	3-*tert*-butylbenzoic acid				
	SUB	(318–335)	103. ± 0.5	327	ME	[1979COL/JIM]
$C_{11}H_{14}O_2$	[98-73-7]	4-*tert*-butylbenzoic acid				
	FUS		17.91	440	DSC	[1993ACR, 1991CHI/BRA]
	SUB	(373–403)	102.1 ± 0.7	388	GS	[2005EME/STR]
	SUB	(373–403)	105.4 ± 0.7	298	GS	[2005EME/STR]
	SUB	(325–343)	103.8 ± 0.4	334	ME	[1979COL/JIM]
	SUB	(325–343)	105.2 ± 0.4	298	ME	[1979COL/JIM, 2005EME/STR]
$C_{11}H_{14}O_2$	[20651-71-2]	4-butylbenzoic acid				
	SUB	(333–349)	110.5 ± 0.7	298	ME	[2004MON/ALM]
$C_{11}H_{14}O_2$	[2529-39-7]	2,3,4,5-tetramethylbenzoic acid				
	SUB	(337–360)	113.4 ± 0.6	348	ME	[1988COL/JIM]
	SUB	(337–360)	115.9 ± 0.6	298	ME	[1988COL/JIM]
$C_{11}H_{14}O_2$	[2408-38-0]	2,3,4,6-tetramethylbenzoic acid				
	SUB	(330–351)	106.9 ± 0.5	341	ME	[1988COL/JIM]
	SUB	(330–351)	109.7 ± 0.5	298	ME	[1988COL/JIM]
$C_{11}H_{14}O_2$	[2604-45-7]	2,3,5,6-tetramethylbenzoic acid				
	SUB	(330–351)	104.6 ± 0.8	341	ME	[1988COL/JIM]
	SUB	(330–351)	106.1 ± 0.8	298	ME	[1988COL/JIM]
$C_{11}H_{14}O_2$	[3854-90-8]	3,5-diethylbenzoic acid				
	SUB	(325–343)	104.1 ± 4.2	334	A	[1974ROU/TUR, 1977PED/RYL, 1987STE/MAL]
$C_{11}H_{14}O_2S$	[111895-49-9]	*p*-tolyl but-1-enyl sulfone				
	SUB		106.3 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1970COX/PIL]
$C_{11}H_{14}O_2S$	[24931-66-6]	*p*-tolyl but-2-enyl sulfone				
	SUB		107.5 ± 2.5		B	[1969MAC/STE, 1970COX/PIL]
$C_{11}H_{14}O_2S$	[17482-19-8]	*p*-tolyl but-3-enyl sulfone				
	SUB		113.4 ± 2.9		B	[1969MAC/STE, 1970COX/PIL]
$C_{11}H_{14}O_2S$	[16192-03-3]	*p*-tolyl-isobutenyl sulfone				
	SUB		102.1 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{11}H_{14}O_2S$	[16192-04-4]	*p*-tolyl 2-methylprop-2-enyl sulfone				
	SUB		106.7 ± 2.9			[1969MAC/STE, 1970COX/PIL]
$C_{11}H_{14}O_3$	[94-26-8]	Butyl 4-hydroxybenzoate				
	FUS	(79–399)	26.12	342.2	AC	[2014MEN/ZHU]
	FUS		25.54	340.5	DSC	[2012YAN/THA]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		25.9	340.7	DSC	[2011UMN/CHI]
	FUS		29.3	342.2	DSC	[2004STU/WIT]
	FUS		26.6	341.8	DSC	[1999GIO/BET]
	SUB	(320–333)	108.4 ± 0.8	298	GS	[2005PER/ROD]
	V		95.8 ± 0.6	298	CGC	[2011UMN/CHI]
	V		76.9		TGA	[2002CHA/DOL]
	V		72.2		TGA	[2001CHA/DOL]
$C_{11}H_{14}O_3$		(*dl*)-3-phenyl-3-hydroxy-2,2-dimethylpropanoic acid				
	FUS		37.24	407		[1991CHI/BRA]
$C_{11}H_{14}O_3$		(*d*)-3-phenyl-3-hydroxy-2,2-dimethylpropanoic acid				
	FUS		39.75	431		[1991CHI/BRA]
$C_{11}H_{14}O_3$	[4521-28-2]	(4-methoxyphenyl)-4-butyric acid				
	FUS		25.3	330.9		[1979ARM/JAM]
$C_{11}H_{14}O_3$		(*dl*)-3-hydroxy-3-phenylvaleric acid				
	FUS		35.15	394		[1991CHI/BRA]
$C_{11}H_{14}O_3$		(*d*)-3-hydroxy-3-phenylvaleric acid				
	FUS		30.96	379		[1991CHI/BRA]
$C_{11}H_{14}O_3$		2-piperonylpropanol				
	V	(373–443)	84.8	388	A	[1987STE/MAL]
$C_{11}H_{14}O_3$	[1498-96-0]	4-butoxybenzoic acid				
	TRS (liq cryst)		18.83	420.7		
	TRS (liq cryst-to-liq)		2.93	432.2	DSC	[1967HER]
	SUB	(378–419)	123.2 ± 1.0	298	GS	[2015JAK/SPO]
	SUB	(351–373)	125.2 ± 0.4	362	ME	[2010FON/SAN]
	SUB	(351–373)	127.7 ± 0.8	298	ME	[2010FON/SAN]
	SUB		129.0 ± 0.8	298		[2010RIB/FER3]
$C_{11}H_{14}O_3$	[147578-43-6]	2-isobutoxybenzoic acid				
	V	(344–398)	95.6 ± 0.6	298	GS	[2015JAK/SPO]
$C_{11}H_{14}O_3$	[350997-58-9]	3-isobutoxybenzoic acid				
	V	(355–382)	99.2 ± 0.9	298	GS	[2015JAK/SPO]
$C_{11}H_{14}O_3$	[30762-00-6]	4-isobutoxybenzoic acid				
	SUB	(363–403)	119.0 ± 0.6	298	GS	[2015JAK/SPO]
$C_{11}H_{14}O_3$	[6627-89-0]	*tert*-butyl phenyl carbonate				
	V	(294–348)	67.6 ± 0.6	298	GS	[2008VER/EME2]
$C_{11}H_{14}O_4$	[2107-70-2]	3-(3,4-dimethoxyphenyl)propionic acid				
	FUS		32.38	370.9	DSC	[2001MON/HIL4]
	SUB	(352–366)	140.3 ± 0.8	359	ME	[2001MON/HIL4]
	SUB	(352–366)	143.6 ± 2.2	298	ME	[2001MON/HIL4]
$C_{11}H_{15}BrO$	[99857-52-0]	4-methyl-2-bromophenyl isobutyl ether				
	V	(293–328)	71.0 ± 0.3	298	GS	[2005STR/SPO]
$C_{11}H_{15}BrO_3$	[929259-36-9]	1-bromo-2-[2-(2-methoxyethoxy)ethoxy]benzene				
	V	(310–373)	83.1 ± 0.3	298	GS	[2006DAB/SPO]
$C_{11}H_{15}Cl$	[42597-10-4]	4-*tert*-butyl-2-chlorotoluene				
	V	(372–503)	54.0	387	A	[1987STE/MAL, 1973FEL/SAV, 1999DYK/SVO]
$C_{11}H_{15}F_9O$	[1193009-96-9]	1,1,1,2,2,3,3,4,4,-nonafluoro-6-(pentyloxy)hexane				
	FUS		18.4	203.0	DSC	[2010ZAG/CON]
$C_{11}H_{15}N$	[42525-65-5]	2-phenylethylazetidine				
	V	(302–333)	62.2	317	A	[1987STE/MAL, 1976KIP/TSV]
$C_{11}H_{15}N$	[4096-20-2]	*N*-phenylpiperidine				

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(284–323)	64.0 ± 0.4	303	GS	[1998VER6]
	V	(284–323)	64.3 ± 0.4	298	GS	[1998VER6]
$C_{11}H_{15}N$	[23074-42-2]	1-adamantyl-1-carbonitrile				
	TRS		5.06	279.4	DSC	[2008SIN/MUR2]
	TRS		5.5	280		
	FUS		15.0	458	DSC	[1984FOU/AMO]
	SUB	(294–312)	67.1 ± 0.8	303	ME	[1992ABB/JIM]
	SUB	(294-312)	67.2 ± 0.8	298	ME	[1992ABB/JIM]
$C_{11}H_{15}NO$	[3376-24-7]	Benzylidene *tert*-butylamine *N*-oxide				
	SUB		86.8 ± 0.9	298	C	[1989ACR/KIR]
$C_{11}H_{15}NO$	[1696-17-9]	*N,N*-diethylbenzamide				
	V	(373–403)	56.5	388	A	[1987STE/MAL]
	V	(374–405)	53.2	389		[1969DAV/MAK]
	V		57.7		Static	[1968DAV/BAT]
$C_{11}H_{15}NO$	[211676-69-6]	(*4R,5R*)-3,4-dimethyl-5-phenyl-1,3-oxazolidine				
	V	(293–303)	50.0 ± 1.3	298	Static	[1998GUD/TOR]
$C_{11}H_{15}NO$	[123618-06-4]	(*4S,5R*)-3,4-dimethyl-5-phenyl-1,3-oxazolidine				
	V	(293–303)	52.4 ± 0.9	298	Static	[1998GUD/TOR]
$C_{11}H_{15}NO$	[15351-09-4]	2-(dimethylamino)-1-phenyl-1-propanone				
	V	(293–333)	64.8 ± 1.2	298	GS	[1994WEL/VER]
$C_{11}H_{15}NO_2$		4-*trans*-cyanocyclohexyl-(*E*)-2-butenoate				
	FUS		24.4	366.2	DTA	[1995KEL/SCH]
$C_{11}H_{15}NO_2$	[94-25-7]	Butyl 4-aminobenzoate				
	FUS		23.9	330.6	DSC	[2005SCH]
	FUS		20.46	331.1	DSC	[1991ACR, 1989NEA/FLY, 1990NEA/FLY]
$C_{11}H_{15}NO_2$	[10287-53-3]	Ethyl 4-dimethylaminobenzoate				
	FUS	(79–397)	20.76	336.8	AC	[2015MEN/XU]
$C_{11}H_{15}NO_2$	[2631-40-5]	2-(1-methylethyl)phenyl methylcarbamate				
	FUS		26.14	369.3	DSC	[1990DON/DRE]
$C_{11}H_{15}NO_2$	[94-14-4]	4-aminobenzoic acid, 2-methylpropyl ester				
	FUS		10.7	327.8	DSC	[2005SCH]
$C_{11}H_{15}NO_2S$	[2032-65-7]	4-methylthio-3,5-xylyl methylcarbamate				
	FUS		30.36	393.8	DSC	[1991ACR, 1990DON/DRE]
$C_{11}H_{15}NO_2S_2$	[949171-66-8]	*N*-theonylthiocarbamic-*O*-pentyl ester				
	FUS		24.59	354.3	DSC	[2007RIB/MON]
	SUB		165.6 ± 2.1	298	C	[2007RIB/MON]
$C_{11}H_{15}NO_3$	[75587-96-1]	1,2-dihydro-6-neopentyl-2-oxonicotmic acid				
	FUS		19.33	469.2	DSC	[1986SHA/BRI]
$C_{11}H_{15}NO_5$	[532-03-6]	2-hydroxy-3-(2-methoxyphenoxy)propyl carbamate (methocarbamol)				
	FUS		38.6	368.5	DSC	[2014SAI/MUR]
	FUS		40.06	369.8	DSC	[2012MER/ROD]
$C_{11}H_{15}NS$	[18775-06-9]	*N,N*-diethylthiobenzamide				
	SUB		91.4 ± 3.2	298	C	[1989RIB/SOU]
$C_{11}H_{15}N_3O_2$	[140670-55-9]	*N*-caproyl-pyrazinamide				
	FUS		35.95	351.7	DSC	[1991LIU/GUO]
$C_{11}H_{16}$	[1777-44-2]	Tetracyclo[6,2,1,$0^{2,7}$,$0^{3,5}$]undecane				
	V		55.3 ± 0.3	298	C	[1996VAR/PAS]
$C_{11}H_{16}$	[538-68-1]	Pentylbenzene				
	V	(284–323)	55.1 ± 0.4	298	GS	[2006VER]
	V		55.3	298		[1994RUZ/ZAB]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V		55.1	298		[1971WIL/ZWO]
$C_{11}H_{16}$	[2049-94-7]	Isopentylbenzene				
	V	(302–466)	53.0	298	EB	[1947STU, 2006VER]
$C_{11}H_{16}$	[2049-95-8]	*tert*-pentylbenzene				
	V	(294–318)	52.3 ± 0.3	298	GS	[2009VER/EME3]
$C_{11}H_{16}$	[1007-26-7]	Neopentylbenzene				
	FUS	(6–350)	15.38	255.4	AC	[2012SMI/LET]
$C_{11}H_{16}$	[2719-52-0]	(*dl*)-2-phenylpentane				
	V	(302–466)	50.3	317	A	[1987STE/MAL]
$C_{11}H_{16}$	[1075-38-3]	1-*tert*-butyl-3-methylbenzene				
	V	(274–318)	51.1 ± 0.3	298	GS	[2008VER/KOZ2]
	V	(279–314)	51.4 ± 0.6	296	GS	[1998VER]
	V	(279–314)	51.3 ± 0.6	298	GS	[1998VER]
$C_{11}H_{16}$	[98-51-1]	1-*tert*-butyl-4-methylbenzene				
	V	(279–323)	52.2 ± 0.1	298	GS	[2008VER/KOZ2]
	V	(279–314)	52.3 ± 0.5	296	GS	[1998VER]
	V	(279–314)	52.2 ± 0.6	298	GS	[1998VER]
$C_{11}H_{16}$	[98-51-1]	4-*tert*-butyltoluene				
	V	(342–465)	49.1	357	A	[1987STE/MAL, 1973FEL/SAV]
$C_{11}H_{16}$	[2050-24-0]	3,5-diethyltoluene				
	V	(307–474)	49.6	322	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}$	[4920-99-4]	1-ethyl-3-isopropylbenzene				
	V	(301–466)	48.8	316	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}$	[4218-48-8]	1-ethyl-4-isopropylbenzene				
	V	(304–469)	49.4	319	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}$	[3982-67-0]	2-ethyl-1,3,5-trimethylbenzene				
	V	(312–481)	52.6	327	A	[1987STE/MAL]
$C_{11}H_{16}$	[18262-85-6]	3-ethyl-1,2,4-trimethylbenzene				
	V	(347–488)	61.3	362	A	[1987STE/MAL]
$C_{11}H_{16}$	[17851-27-3]	5-ethyl-1,2,4-trimethylbenzene				
	V	(317–481)	56.4	332	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}$	[700-12-9]	Pentamethylbenzene				
	FUS		11.6	324.7	DTA	[1994SAB/TAB]
	FUS		10.67	328.2		[1996DOM/HEA, 1944EIB]
	TRS		1.80	296.4		
	FUS		12.34	327.5		[1996DOM/HEA, 1933FER/THO]
	TRS		1.98	296.8	C	[1996DOM/HEA, 1931HUF/PAR]
	SUB		71.6 ± 0.1	298	C	[1994SAB/TAB]
	SUB	(296–313)	77.4 ± 0.4	298	ME	[1989COL/JIM]
	V	(338–503)	57.8	353	A	[1987STE/MAL, 1930MAC/SMI]
$C_{11}H_{16}N_2O_2$	[82413-41-0]	1,3-dimethyl-5,6-pentamethyleneuracil				
	SUB	(335–358)	111.9 ± 0.2	346	ME	[1983COL/JIM]
	SUB	(323–338)	108.8 ± 5	330	QR	[1980TEP/YAN, 1983COL/JIM]
	SUB	(340–370)	113.4 ± 1.3	355	MS	[1980TEP/YAN, 1983COL/JIM]
$C_{11}H_{16}N_2O_2$	[156461-80-2]	*N*-methyl-*N*-(4-*tert*-butylphenyl)nitramine				
	FUS		23.4	351.2	DSC	[2002DAS/ZAL]
$C_{11}H_{16}N_2O_2S_2$	[19475-21-9]	*N*-ethyl-*S*-methyl-*N*′-tosylisothiourea				
	FUS		35.8	390.2	DSC	[1992REI/HAN]
$C_{11}H_{16}N_2O_2S_2$	[21017-78-7]	*N*-methyl-*S*-ethyl-*N*′-tosylisothiourea				
	FUS		26.5	414.2	DSC	[1992REI/HAN]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{16}N_2O_3$	[77-26-9]	Itobarbital				
	FUS		22.8		DSC	[1982TRE/VAU]
$C_{11}H_{16}N_2O_3$	[125-42-8]	Vinbarbitone				
	FUS		29.9		DSC	[1982TRE/VAU]
$C_{11}H_{16}N_4$	[60798-89-2]	5-(1-adamantyl)tetrazole				
	SUB	(394–419)	123.4 ± 1.5	408	ME	[2014STE/PAU]
	SUB	(394–419)	126.8 ± 1.5	298	ME	[2014STE/PAU]
$C_{11}H_{16}N_4O_2$	[35873-40-6]	8-butyltheophylline				
	FUS		32.3	509.2	DSC	[1989GON/KRA]
$C_{11}H_{16}N_4O_2$	[15030-44-1]	8-*tert*-butyltheophylline				
	FUS		48.2	402.3	DSC	[1989GON/KRA]
$C_{11}H_{16}N_4O_4$	[24613-06-7]	(−) 4,4′-(1-methyl-1,2-ethanediyl)bis-2,6-piperazinedione (dexrazoxane)				
	FUS		37.82	467.6	DSC	[1999LI/ZEL, 1992VIG/ZAM]
$C_{11}H_{16}N_4O_4$	[21416-67-1]	(±) 4,4′-(1-methyl-1,2-ethanediyl)bis-2,6-piperazinedione (dexrazoxane)				
	FUS		44.98	507.4	DSC	[1999LI/ZEL, 1992VIG/ZAM]
$C_{11}H_{16}O$	[51528-17-7]	2-*sec*-butyl-4-methylphenol				
	V	(413–548)	58.4	428	A	[1987STE/MAL]
	V	(383–523)	59.0	373		[1953STA/MUL]
	V	(383–523)	58.0	398		[1953STA/MUL]
	V	(383–523)	55.8	423		[1953STA/MUL]
	V	(383–523)	51.4	473		[1953STA/MUL]
$C_{11}H_{16}O$	[2409-55-4]	2-*tert*-butyl-4-methylphenol				
	FUS		17.19	325.5	DSC	[2013SUN/LI]
	SUB	(288–318)	82.6 ± 0.5	303	GS	[1999VER2]
	SUB	(288–318)	82.9 ± 0.5	298	GS	[1999VER2]
	SUB	(274–294)	77.4	284	A	[1987STE/MAL, 1960AIH]
	V	(327–358)	63.0 ± 0.3	343	GS	[1999VER2]
	V	(327–358)	65.7 ± 0.3	298	GS	[1999VER2]
	V	(385–517)	58.9	400	A	[1987STE/MAL]
	V	(343–507)	57.7	348		[1953STA/MUL]
	V	(343–507)	55.7	373		[1953STA/MUL]
	V	(343–507)	52.6	423		[1953STA/MUL]
	V	(343–507)	48.5	473		[1953STA/MUL]
$C_{11}H_{16}O$	[88-60-8]	2-*tert*-butyl-5-methylphenol				
	FUS		14.85	296.1	DSC	[2013SUN/LI]
	SUB	(277–294)	80.4 ± 1.3	287	GS	[1999VER2]
	SUB	(277–294)	79.7 ± 1.3	298	GS	[1999VER2]
	V	(296–343)	65.9 ± 0.3	320	GS	[1999VER2]
	V	(296–343)	67.2 ± 0.3	298	GS	[1999VER2]
	V	(378–490)	59.8	393	A	[1987STE/MAL]
	V	(383–518)	53.0	398	A	[1987STE/MAL]
$C_{11}H_{16}O$	[2219-82-1]	2-*tert*-butyl-6-methylphenol				
	FUS		17.32	302.5	DSC	[1999VER]
	V	(308–343)	62.2 ± 0.5	326	GS	[1999VER]
	V	(308–343)	63.8 ± 0.5	298	GS	[1999VER]
	V	(375–505)	55.2	390	A	[1987STE/MAL]
$C_{11}H_{16}O$	[98-27-1]	4-*tert*-butyl-2-methylphenol				
	V	(291–333)	71.3 ± 0.6	312	GS	[1999VER2]
	V	(291–333)	72.1 ± 0.6	298	GS	[1999VER2]
	V	(347–520)	61.5	362	A	[1987STE/MAL]
	V	(275–297)	75.7	286	A	[1987STE/MAL, 1960AIH]
	V	(347–532)	55.7	348		[1953STA/MUL]
	V	(347–532)	53.9	373		[1953STA/MUL]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(347–532)	53.2	398		[1953STA/MUL]
	V	(347–532)	50.9	423		[1953STA/MUL]
	V	(347–532)	46.7	473		[1953STA/MUL]
$C_{11}H_{16}O$	[3968-87-4]	2-ethyl-3-phenyl-1-propanol				
	V	(348–393)	70.9	363	A	[1987STE/MAL]
$C_{11}H_{16}O$	[87-26-3]	2-(2-pentyl)phenol				
	V	(397–501)	74.4	413	EB	[1990NES/NAZ]
	V	(397–501)	59.6	412		[1993KAS/MOK]
$C_{11}H_{16}O$	[14938-35-3]	4-pentylphenol				
	V	(423–563)	60.9	438	A	[1987STE/MAL]
$C_{11}H_{16}O$	[80-46-6]	4-*tert*-pentylphenol				
	SUB	(293–333)	87.4 ± 0.5	313	GS	[1999VER2]
	SUB	(293–333)	88.3 ± 0.5	298	GS	[1999VER2]
	V	(297–333)	64.2 ± 0.2	329	GS	[1999VER2]
	V	(297–333)	65.3 ± 0.2	298	GS	[1999VER2]
	V	(385–548)	58.2	400	A	[1987STE/MAL]
$C_{11}H_{16}O$	[10521-91-2]	5-phenyl-1-pentanol				
	V	(373–430)	58.2	388	A	[1987STE/MAL]
$C_{11}H_{16}O$	[91967-71-4]	(1-propoxyethyl)benzene				
	V	(288–321)	56.4 ± 0.2	305	GS	[2001VER/HEI]
	V	(288–321)	56.7 ± 0.2	298	GS	[2001VER/HEI]
$C_{11}H_{16}O$	[65757-61-1]	(1-isopropoxyethyl)benzene				
	V	(278–313)	55.4 ± 0.3	298	GS	[2002KRA/VAS, 2002VER/HEI]
$C_{11}H_{16}O$	[1712-74-9]	Ethyl cumyl ether				
	V	(278–313)	54.8 ± 0.5	296	GS	[2001VER/HEI2]
	V	(278–313)	54.7 ± 0.5	298	GS	[2001VER/HEI2]
$C_{11}H_{16}O$	[31108-34-6]	1-(2,4,6-trimethylphenyl)ethanol				
	SUB	(282–313)	U 5.7	297	A	[1987STE/MAL]
$C_{11}H_{16}O$	[3459-80-1]	*tert*-butyl benzyl ether				
	V	(278–308)	57.3 ± 0.3	298	GS	[2004VER/VAS]
$C_{11}H_{16}O_2$	[121-00-6]	2-*tert*-butyl-4-methoxyphenol				
	V	(403–463)	54.4	418	A	[1987STE/MAL]
$C_{11}H_{16}O_2$	[533-24-4]	1,3-dihydroxy-4-pentylbenzene				
	V	(423–488)	84.9	438	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_{11}H_{16}O_2$	[774-48-1]	Phenyldiethoxymethane				
	V	(283–329)	62.8 ± 0.6	298	GS	[2002VER]
$C_{11}H_{16}O_2$	[25310-92-3]	1,1-dimethoxy-1-phenylpropane				
	V	(288–328)	58.9 ± 0.3	298	GS	[2002VER]
	V	(288–328)	57.9 ± 0.3		GS	[1998VER/PEN]
$C_{11}H_{16}O_2$		*tert*-pentylcatechol (isomer not specified)				
	V	(398–473)	58.2	436		[1965GAK/BAB]
$C_{11}H_{16}O_2$	[828-51-3]	1-adamantanecarboxylic acid				
	FUS		16.2	447	DSC	[2011ROU/MAR]
	TRS		2.25	251	DSC	[1986HAR/GIL]
	V		91.1 ± 3.7	298	CGC	[2011ROU/MAR]
$C_{11}H_{16}O_3$	[7149-82-8]	(racemic) 3-(2-ethylphenoxy)-propane-1,2-diol				
	FUS		34.8	324.1	DSC	[2008BRE/BRE]
$C_{11}H_{16}O_3$	[1092799-92-2]	(*S*)-3-(2-ethylphenoxy)-propane-1,2-diol				
	FUS		35.0	342.1	DSC	[2008BRE/BRE]
$C_{11}H_{16}O_5$		Ethylcamphoric acid anhydride				

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(391–571)	70.8	406	A	[1987STE/MAL, 1947STU]
$C_{11}H_{16}O_5$		(1-methylallyl)[1-(allyloxycarbonyl)ethyl]carbonate				
	V	(368–508)	60.2	383	A	[1987STE/MAL]
$C_{11}H_{17}Cl_3OS$	[76619-96-0]	2,3,3-trichloro-2-propenethioic acid, *O*-octyl ester				
	V	(443–483)	74.2		GC	[1980PIT/KIS]
$C_{11}H_{17}NO$	[552-79-4]	(−) 2-dimethylamino-1-phenyl-1-propanol (methylephedrine)				
	FUS	(79–399)	21.8	358.6	AC	[2008DI/WAN]
	FUS		30.56	361.2	DSC	[1999LI/ZEL]
$C_{11}H_{17}NO$	[1201-56-5]	(±) 2-dimethylamino-1-phenyl-1-propanol (methylephedrine)				
	FUS		26.6	336	DSC	[1999LI/ZEL]
$C_{11}H_{17}NO$	[5511-18-2]	1-adamantyl carboxamide				
	SUB	(336–354)	105.9 ± 0.5	345	ME	[1989ABB/JIM]
	SUB		108.0 ± 0.5	298	ME	[1989ABB/JIM]
$C_{11}H_{17}N_5$	[153495-36-4]	6,9-dimethyl-8-butyladenine				
	FUS		36.0	409.2		[1994ZIE/ZIE]
	SUB	(348-354)	106.0 ± 0.1	351	ME	[1994ZIE/ZIE]
$C_{11}H_{18}$	[768-91-2]	1-methyladamantane				
	TRS		1.91	169.5		
	TRS		1.47	211.5		
	FUS		3.71	392	DSC	[1977CLA/KNO]
	SUB	(300–342)	67.8 ± 1.3	298	BG	[1977STE/WAT]
	SUB	(306–336)	67.6 ± 0.5	321		[1975CLA/KNO, 1979CLA/KNO]
$C_{11}H_{18}$	[700-56-1]	2-methyladamantane				
	TRS		3.65	176	DSC	[1977CLA/KNO]
	SUB	(310–330)	67.5 ± 2.1	320		[1975CLA/KNO, 1979CLA/KNO]
	SUB	(300-340)	68.2 ± 1.3	298		[1977STE/WAT]
$C_{11}H_{18}O$	[770-71-8]	Tricyclo[3.3.1.1^{3,7}] decane-l-methanol (l-adamantanemethanol)				
	FUS		20.5	389.5	DSC	[2015HAS/NEG]
	FUS		20.27	389.2	DSC	[2004STU/WIT]
$C_{11}H_{18}N_2$	[71172-36-6]	Undecanedinitrile				
	FUS		26.0	266.1	DSC	[2007BAD/BLA]
$C_{11}H_{18}N_2O_3$	[76-74-4]	5-ethyl-5-(l-methylethyl)barbituric acid (nembutal, pentobarbital)				
	FUS (I)		19.7	402.6		
	FUS (III)		30.8	386.7		
	FUS (IV)		22.0	382.5	DSC	[2012ROS/GEL]
	FUS		2l .3		DSC	[1982TRE/VAU]
	FUS		2l .5		DSC	[1978SEK/TSU]
$C_{11}H_{18}N_2O_2$	[57-43-2]	Amobarbitone				
	FUS		25.7		DSC	[1982TRE/VAU]
	FUS		29.0		DSC	[1978SEK/TSU]
$C_{11}H_{18}O$	[26533-38-0]	6-methyl-3-isopropenyl-5-hepten-2-one				
	V	(390–420)	49.7	405	EB	[1989WAN/YIN]
$C_{11}H_{18}O$	[702-98-7]	2-methyl-2-adamantanol				
	SUB	(298–334)	9l.3 ± 0.8	298	ME	[2003CHA/BLO2]
	SUB		9l.4 ± 0.3	298	C	[2003CHA/BLO2]
$C_{11}H_{18}O_2$	[7492-41-3]	Borneol formate				
	V	(320–487)	52.7	335	A	[1987STE/MAL, 1947STU]
$C_{11}H_{18}O_2$	[2142-94-1]	3,7-dimethyl-*cis*-2,6-octadienyl formate				
	V	(330–498)	58.1	345	A	[1987STE/MAL]
$C_{11}H_{18}O_2$	[105-86-2]	3,7-dimethyl-*trans*-2,6-octadienyl formate				
	V	(334–503)	57.1	349	A	[1987STE/MAL, 1947STU]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{18}O_2$	[1200-67-5]	Isobomeol formate				
	V	(383–441)	53.5	398	A	[1987STE/MAL, 1937RUD/KOR]
$C_{11}H_{18}O_4$	[4167-77-5]	1,1-cyclopentanedicarboxylic acid diethyl ester				
	V	(293–323)	66.8 ± 0.4		GS	[1998VER/KUM]
$C_{11}H_{18}O_5$	[85710-88-9]	4-oxononanedioic acid, dimethyl ester				
	V	(394–559)	72.7	409	A	[1987STE/MAL]
$C_{11}H_{18}O_6$	[16515-90-5]	1,1,1-tris(ethoxycarbonyl)methane				
	V	(298–338)	74.1 ± 0.4		GS	[1995RAK/VER]
$C_{11}H_{18}O_6$	[170464-50-3]	1,1,1-tris(methoxy carbonyl)pentane				
	V	(298–338)	81.0 ± 0.4		GS	[1995RAK/VER]
$C_{11}H_{19}NO_2$	[62391-95-1]	Ethyl bis(isopropyl)cyanoacetate				
	V	(284–319)	65.0 ± 0.9	298	GS	[1995VER/BEC]
$C_{11}H_{19}NO_3$	[114-26-1]	2-isopropoxyphenyl *N*-methylcarbamate				
	FUS		22.96	362.7	DSC	[1991ACR, 1990DON/DRE]
$C_{11}H_{19}NO_5$	[1446-19-1]	*N*-acetyl-(*l*)-glutamic acid, diethyl ester				
	V	(403–503)	67.2	418	A, EB	[1987STE/MAL, 1953MEL/VIO]
$C_{11}H_{19}NS$	[4175-69-3]	2,4-di-*tert*-butylthiazole				
	FUS		10.5	258.2	C	[1966MEY/MET]
$C_{11}H_{19}N_3O$	[23947-60-6]	5-butyl-2-ethylamino-6-methylpyrimidin-4-ol				
	FUS		20.32	432.5	DSC	[1991ACR, 1990DON/DRE]
$C_{11}H_{19}N_5S$	[4147-51-7]	6-ethylthio-*N*,*N*′-bis(1-methylethyl)-1,3,5-triazine-2,4-diamine				
	FUS		23.94	377.7	DSC	[1991ACR, 1990DON/DRE]
$C_{11}H_2O$	[2243-98-3]	1-undecyne				
	V	(422–468)	46.7	437	EB	[1986ELV/KUD]
$C_{11}H_2O$	[2294-72-6]	5-undecyne				
	V	(423–471)	47.3	438	EB	[1986ELV/KUD]
$C_{11}H_2O$	[180-43-8]	Spiro[5.5]undecane				
	V		56.1	298	C	[1975SUB/ZWO]
$C_{11}H_2O$	[1606-08-2]	Cyclopentylcyclohexane				
	V	(383–488)	47.9	398	A	[1987STE/MAL]
$C_{11}H_2O$	[180-43-8]	Bicyclo[3.3.3]undecane				
	SUB		63.6 ± 0.8	298	C	[1975PAR/STE, 1977PED/RYL]
$C_{11}H_{20}Cl_4$	[3922-34-7]	1,1,1,11-tetrachloroundecane				
	V	(303–353)	92.5	318	A	[1987STE/MAL, 1999DYK/SVO, 1960MAL/MAL]
$C_{11}H_{20}Cl_4$	[210049-49-3]	1,2,10,11-tetrachloroundecane				
	V		78.7			[1998DRO/TOM]
$C_{11}H_{20}N_2$	[97142-71-7]	1-heptyl-2-methylimidazole				
	V	(312–368)	79.4 ± 0.2	298	GS	[2011EME/POR2]
$C_{11}H_{20}N_2$	[21252-69-7]	1-octylimidazole				
	V		81.0 ± 1.2	298	C	[2015VIT/AGA]
$C_{11}H_{20}N_2S$	[1394816-48-8]	Ethyl-(1-thia-3-azaspiro[5.5]undec-2-en-2-yl)amine				
	FUS		24.5	378.4	DSC	[2013PER/BLO2]
	SUB		100.8 ± 1.1	298	GS	[2013PER/BLO2]
$C_{11}H_{20}N_6$	[13452-85-2]	1-pyrrolidinyl-3,5-bis(dimethylamino)-(*s*)-triazine				
	FUS		25.61	403.1	DSC	[1991ACR, 1989BRA/RYT]
$C_{11}H_{20}N_6O$	[16269-02-6]	1-morpholinyl-3,5-bis(dimethylamino)-(*s*)-triazine				
	FUS		24.69	397.4	DSC	[1991ACR, 1989BRA/RYT]
$C_{11}H_{20}N_6S$	[41492-69-7]	1-(thiomorpholinyl-3,5-bis(dimethylamino)-(*s*)-triazine				

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		29.08	391.2	DSC	[1991ACR, 1989BRA/RYT]
$C_{11}H_{20}O$	[878-13-7]	Cycloundecanone				
	FUS		23.0	287.7	DSC	[1998GON/SZW]
	V	(363–433)	60.3	378	A	[1987STE/MAL, 1972WOL]
	V	(448–501)	51.8	463	A, EB	[1987STE/MAL, 1976MEY/HOT]
	V	(363–433)	64.3 ± 0.6	298	VP	[1972WOL]
$C_{11}H_{20}O_2$	[104-67-6]	γ-undecanolactone				
	V		79.4 ± 4.4	298	CGC	[2014KOZ/GOB]
$C_{11}H_{20}O_2$	[710-04-3]	δ-undecanolactone				
	V		80.1 ± 4.5	298	CGC	[2014KOZ/GOB]
$C_{11}H_{20}O_2$	[1118-71-4]	2,2,6,6-tetramethyl-3,5-heptanedione				
	V		59.5	298	C	[1978RIB/IRV, 1975IRV/RIB]
$C_{11}H_{20}O_2$	[103-11-7]	(*dl*)-2-ethylhexyl acrylate				
	V	(323–489)	55.3	338	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$		Formic acid, 3-para-menthol ester				
	V	(320–492)	52.0	335	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$	[1551-43-5]	Cyclohexyl valerate				
	FUS	(5–320)	18.32	222.4	AC	[2001KOZ/BLO]
	V		63.7 ± 0.1	298	C	[2004PAU/ZAI, 2003ZAI/VER]
	V	(273–318)	67.2 ± 0.8	298	ME	[2003ZAI/VER]
	V	(273–318)	63.9 ± 0.4	298	ME	[2003ZAI/VER]
	V	(293–332)	62.4 ± 0.7	298	GS	[2003ZAI/VER]
$C_{11}H_{20}O_2$		1-methylcyclohexyl isobutyrate				
	V	(333–378)	57.2	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$		3-methylcyclohexyl isobutyrate				
	V	(333–378)	59.3	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$	[5460-50-4]	4-methylcyclohexyl isobutyrate				
	V	(333–378)	59.7	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$	[29878-49-7]	Cyclohexyl pivalate				
	V	(333–378)	59.0	298	CGC	[1999VER/HEI]
$C_{11}H_{20}O_2$	[61732-96-5]	2-hexyl-4,7-dihydro-1,3-dioxepin				
	V	(333–453)	66.0	348	A	[1987STE/MAL, 1977VOI/SHC]
$C_{11}H_{20}O_2$	[2499-59-4]	Octyl acrylate				
	V	(331–500)	56.2	346	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$	[1725-03-7]	Oxa-2-cyclododecanone (undecanolactone)				
	TRS		3.36	250.2		[1996DOM/HEA]
	FUS	(14–336)	12.61	275.3	AC	[1981LEB/YEV]
	V	(293–353)	64.8	293	GS	[2011EME/VER3]
	V	(293–353)	64.3 ± 0.4	298	GS	[2011EME/VER3]
	V	(293–353)	63.4	308	GS	[2011EME/VER3]
	V	(293–353)	60.9	333	GS	[2011EME/VER3]
	V	(293–353)	58.5	358	GS	[2011EME/VER3]
	V	(365–387)	57.7 ± 0.8	376	MM	[1991WIB/WAL]
	V	(365–387)	66.2 ± 1.3	298	MM	[1991WIB/WAL]
	V	(353–413)	70.5	368	A	[1987STE/MAL]
$C_{11}H_{20}O_2$	[112-38-9]	10-undecenoic acid				
	V	(387–548)	70.6	402	A	[1987STE/MAL, 1947STU]
$C_{11}H_{20}O_2$	[707-29-9]	3,3-dimethyl-1,5-dioxaspiro[5.5]undecane				
	V	(283–323)	59.0 ± 0.6		GS	[2002VER, 1998VER/PEN]
$C_{11}H_{20}O_2$	[53398-85-9]	(*dl*)-*cis*-3-hexenyl-2-methylbutyrate				

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V		61.5 ± 0.6	298	CGC	[2015KOZ/GOB]
$C_{11}H_{20}O_2$	[196109-18-9]	*cis*-5-octenyl propionate				
	V		65.3 ± 1.6	298	CGC	[2015KOZ/GOB]
$C_{11}H_{20}O_3$	[24431-34-3]	Hexyl levulinate				
	V	(363–540)	66.6	378	A	[1987STE/MAL, 1947STU]
	V		59.1	479		[1931SCH/COW]
$C_{11}H_{20}O_4$	[77008-66-3]	(*dl*)-hexyl 2-acetoxypropionate				
	V	(322–517)	70.3	337	A	[1987STE/MAL, 1950REH/DIX]
$C_{11}H_{20}O_4$	[1190-39-2]	Dibutyl malonate				
	V	(303–369)	70.9	336	GS	[2011LIP/KRA]
	V	(303–369)	75.3 ± 0.4	298	GS	[2011LIP/KRA]
$C_{11}H_{20}O_4$	[541-16-2]	Di-*tert*-butyl malonate				
	V	(293–363)	65.8 ± 0.3	298	GS	[2011POR/KRA]
$C_{11}H_{20}O_4$	[1724-48-7]	Dipropyl glutarate				
	V	(313–353)	71.3	333	GS	[2011LIP/KRA]
	V	(313–353)	73.5 ± 0.3	298	GS	[2011LIP/KRA]
$C_{11}H_{20}O_4$	[71340-46-0]	Diisopropyl glutarate				
	V	(295–327)	72.8 ± 0.7	298	GS	[2011POR/KRA]
$C_{11}H_{20}O_4$	[1732-10-1]	Azelaic acid, dimethyl ester				
	V	(413–540)	63.6	428	A	[1987STE/MAL]
$C_{11}H_{20}O_4$	[77-25-8]	Diethyl diethylmalonate				
	V	(386–491)	68.5	401	A	[1987STE/MAL, 1978SMI/ZEL]
$C_{11}H_{20}O_4$	[1852-04-6]	Undecanedioic acid				
	TRS		1.6	355.3		
	FUS		41.2	380.1	DSC	[2005ROU/TEM]
	FUS		39.65	385	DSC	[1996DOM/HEA, 1974CIN/BER]
	SUB	(295–313)	141.5		TPTD	[2005CHA/ZIE]
[Note: Values based on TPTD method are not consistent with values determined by other experimental methods.]						
	SUB	(371–381)	158.6 ± 1.9	376	ME	[1999RIB/MON]
	SUB	(371–381)	162.5 ± 1.9	298	ME	[1999RIB/MON]
	V	(424–503)	128.2 ± 2.3	298	CGC	[2005ROU/TEM]
$C_{11}H_{20}O_4$	[1732-10-1]	Dimethyl azelate				
	V	(298–373)	82.3 ± 0.4	298	GS	[2006VER/KOZ]
$C_{11}H_{20}O_5$		Hexyl[1-(methoxycarbonyl)ethyl]carbonate				
	V	(371–538)	65.9	386	A	[1987STE/MAL, 1950REH/DIX2]
$C_{11}H_{20}O_5$	[902261-26-1]	Propyl[1-(butoxycarbonyl)ethyl]carbonate				
	V	(330–463)	66.4	345	A	[1987STE/MAL, 1950REH/DIX2]
$C_{11}H_{21}N$	[80606-32-2]	2-butyl-2-methylhexanenitrile				
	V	(298–388)	59.8 ± 0.4		GS	[1994RAK/VER]
$C_{11}H_{21}N$	[2244-07-7]	Undecanonitrile				
	V	(290–340)	71.8 ± 0.3	298	GS	[2005EME/VER]
	V	(355–534)	63.7	370	A	[1987STE/MAL]
	V		71.1 ± 0.1	298	C	[1977STRI/SUN]
$C_{11}H_{21}N$	[3319-01-5]	*N*-cyclohexylpiperidine				
	V	(288–328)	59.9 ± 0.6	308	GS	[1998VER6]
	V	(288–328)	60.5 ± 0.6	298	GS	[1998VER6]
$C_{11}H_{21}NO$	[15770-38-4]	*N*-hexanoylpiperidine				
	V	(383–433)	66.3	398	A	[1987STE/MAL]
	V		81.8		Static	[1968DAV/BAT]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{21}N_5O$	[3004-70-4]	2-methoxy-4-isopropylamino-6-diethylamino-(*s*)-triazine (ipatone)				
	FUS		23.5		DSC	[1971GET/WAR]
$C_{11}H_{21}N_5S$	[4147-51-7]	6-(ethylthio)-*N*,*N′*-bis(1-methylethyl)-1,3,5-triazine-2,4-diamine				
	FUS		23.94	377.7	DSC	[1990DON/DRE]
$C_{11}H_{21}N_5S$	[4147-55-1]	2-(diethylamino)-4-(isopropylamino)-6-(methylthio)-(*s*)-triazine				
	FUS		23.8		DSC	[1971GET/WAR]
$C_{11}H_{21}N_7$	[125867-94-9]	1-(piperizinyl)-3,5-bis(dimethylamino)-(*s*)-triazine				
	FUS		23.01	382	DSC	[1991ACR, 1989BRA/RYT]
$C_{11}H_{22}$	[4292-92-6]	Pentylcyclohexane				
	V		52.9 ± 0.5	298		[1987AZA]
	V		54.1 ± 0.3	298	GCC	[1978FUC/PEA]
	V		53.9	298		[1975KUS/SAI, 1985MAJ/SVO]
	V		55.0	298		[1971WIL/ZWO]
$C_{11}H_{22}$	[4457-00-5]	Hexylcyclopentane				
	V		55.9	298		[1971WIL/ZWO]
$C_{11}H_{22}$	[821-95-4]	1-undecene				
	TRS	(12–311)	9.2	217.3		[1996DOM/HEA]
	FUS	(12–311)	16.99	224	C	[1957MCC/FIN]
	V	(283–312)	54.3 ± 0.3	298	GS	[2000VER/WAN]
	V	(418–466)	45.9	433	EB	[1983ELV/KUU]
	V		55.4	298		[1971WIL/ZWO]
	V	(378–473)	48.2	393	A	[1987STE/MAL, 1950FOR/CAM]
$C_{11}H_{22}$	[821-96-5]	*cis*-2-undecene				
	V	(421–469)	46.3	436	EB	[1983ELV/KUU]
	V	(333–393)	53.2	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[693-61-8]	*trans*-2-undecene				
	V	(421–469)	46.4	436	EB	[1983ELV/KUU]
	V	(333–393)	53.0	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[821-97-6]	*cis*-3-undecene				
	V	(419–466)	45.9	435	EB	[1983ELV/KUU]
	V	(333–393)	52.3	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[1002-68-2]	*trans*-3-undecene				
	V	(419–466)	46.0	435	EB	[1983ELV/KUU]
	V	(333–393)	52.0	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[821-98-7]	*cis*-4-undecene				
	V	(419–466)	45.6	434	EB	[1983ELV/KUU]
	V	(333–393)	51.6	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[693-62-9]	*trans-4-undecene*				
	V	(419–466)	45.8	434	EB	[1983ELV/KUU]
	V	(333–393)	52.1	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[764-96-5]	*cis*-5-undecene				
	V	(418–465)	45.5	433	EB	[1983ELV/KUU]
	V	(333–393)	51.4	348	A	[1987STE/MAL]
$C_{11}H_{22}$	[764-97-6]	*trans*-5-undecene				
	V	(418–466)	46.0	433	EB	[1983ELV/KUU]
	V	(333–393)	51.8	348	A	[1987STE/MAL]
$C_{11}H_{22}$		3-methyl-3-propyl-1-heptene				
	V	(263–293)	52.8 ± 1.0	278	HSA	[1995CHI/HES]
	V	(263–93)	50.9	298	HSA	[1995CHI/HES]
	V		51.5	298	CGC	[1995CHI/HES]
$C_{11}H_{22}CI_2$	[822-01-5]	1,1-dichloroundecane				
	V	(430–500)	59.5	445		[1999DYK/SVO, 1987VAR/LOS2]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(430–500)	71.7	298		[1987VAR/LOS2, 1991BAS/SVO]
$C_{11}H_{22}N_2$	[880-09-1]	bis(piperidino)methane				
	V	(283–322)	61.9 ± 0.9	303	GS	[2002VER2]
	V	(283–322)	62.2 ± 0.9	298	GS	[2002VER2]
$C_{11}H_{22}N_2O_2$	[73154-82-2]	Undecandiamide				
	FUS		64.4	451.2	DSC	[2006BAD/DEL]
$C_{11}H_{22}O$	[36633-49-5]	1-hexylcyclopentanol				
	V	(387–509)	59.2	402	A	[1987STE/MAL, 1944MCL/EDW]
$C_{11}H_{22}O$		Cyclohexyl *tert*-amyl ether				
	V		54.3 ± 0.2	298		[2002VER]
$C_{11}H_{22}O$	[112-12-9]	2-undecanone				
	FUS		36.34	285.26	DSC	[2011DOM/PAD]
	V	(461–538)	51.5	476	A	[1987STE/MAL]
	V		69.7 ± 0.5	298	GCC	[1979SAL/PEA]
	V		67.0 ± 0.4	298	C	[1979SUN/SVE2]
	V	(393–523)	56.2	408	A	[1987STE/MAL, 1975AMB/ELL]
	V		46.4	506		[1975AMB/ELL]
	V	(335–433)	61.6	350	A, EB	[1987STE/MAL, 1966MEY/WAG]
	V	(341–497)	61.9	356		[1947STU]
$C_{11}H_{22}O$	[927-49-1]	6-undecanone				
	FUS		28.78	290.5	DSC	[1993VIL/HAM]
	V	(343–383)	59	298	CGC	[1995CHI/HOS]
	V	(343–383)	61.8	298	CGC	[1995CHI/HOS]
	V	(388–543)	55.3	403	A	[1987STE/MAL]
	V	(461–513)	50.4	476	A	[1987STE/MAL]
	V		63.5 ± 0.5	298	GCC	[1979SAL/PEA]
	V	(383–514)	45.8	500		[1975STR/SUN]
$C_{11}H_{22}O$	[4436-99-1]	2,2,6,6-tetramethyl-4-heptanone				
	V		52.9 ± 0.2	298	C	[1971SEL]
$C_{11}H_{22}O$	[112-44-7]	Undecanal				
	V	(293–329)	64.6 ± 0.5	298	GS	[2003VER/KRA2]
	V	(323–343)	69.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	V	(288–400)	60.2	303	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[5870-93-9]	Heptyl butyrate				
	V		65.1 ± 1.1	298	CGC	[2015KOZ/GOB]
	V	(384–498)	58.7	399	A	[1987STE/MAL]
$C_{11}H_{22}O_2$	[142-60-9]	Octyl propanoate				
	V	(293–348)	64.0	321	GS	[2012SAM/NAZ]
	V	(293–348)	66.4 ± 0.2	298	GS	[2012SAM/NAZ]
$C_{11}H_{22}O_2$	[6454-22-4]	4,5-dimethyl-2-hexyl-1,3-dioxolane				
	V	(333–453)	65.6	348	A	[1987STE/MAL, 1977VOI/SHC]
$C_{11}H_{22}O_2$	[2244-84-0]	4-heptyl-1,3-dioxane				
	V	(353–453)	64.4	368	A	[1987STE/MAL, 1977VOI/SHC]
$C_{11}H_{22}O_2$	[41277-75-2]	3-hexyl-4-hydroxytetrahydro-2*H*-pyran				
	V	(383–453)	73.6	398	A	[1987STE/MAL, 1977VOI/SHC]
$C_{11}H_{22}O_2$	[5458-59-3]	Isopropyl caprylate				
	V	(338–420)	57.5	353	A	[1987STE/MAL]
	V	(338–419)	58.3	353		[1948BON/ATH, 1984BOU/FRI]
$C_{11}H_{22}O_2$	[110-42-9]	Methyl decanoate (methyl caprate)				
	V	(303–462)	62.2 ± 0.8	383	Static	[2011BEN/KHI]
	V	(303–462)	71.4 ± 0.8	298	Static	[2011BEN/KHI]
	V		62.0	350	CE	[2002VAN/VAN]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V		62.9 ± 0.1	337	CE	[2002VAN/VAN]
	V		66.1 ± 0.2	298	CE	[2002VAN/VAN]
	V	(373–433)	66.9	298	GC	[1997KRO/VEL]
	V	(453–543)	49.9	498	GC	[1993HUS/SAR]
	V		66.3 ± 0.5	298	GCC	[1980FUC/PEA]
	V		66.8 ± 0.6	298	C	[1977MAN/SEL]
	V	(379–500)	57.1	394	A, E	[1987STE/MAL, 1963ROS/SCH]
	V	(324–370)	63.0	339	MG,OM	[1952SCO/MAC]
$C_{11}H_{22}O_2$	[5432-30-4]	2-octyl-1,3-dioxolane				
	V	(333–453)	60.3	348	A	[1987STE/MAL, 1977VOI/SHC]
$C_{11}H_{22}O_2$	[624-13-5]	Propyl caprylate				
	V	(343–500)	58.8	358	A	[1987STE/MAL]
	V	(343–426)	58.2	358		[1948BON/ATH, 1984BOU/FRI]
$C_{11}H_{22}O_2$	[143-13-5]	Nonyl acetate				
	V	(277–309)	66.2 ± 0.2	298	GS	[2006KRA/VER]
	V		66.8	298		[1997DEF/CAR]
	V	(313–358)	67	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{11}H_{22}O_2$	[245658-29-1]	2,2-dimethylpropanoic acid, 1,1-dimethylbutyl ester				
	V	(333–378)	52.3	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[245658-35-9]	2,2-dimethylpropanoic acid, 1,1,2-trimethylpropyl ester				
	V	(333–378)	52.8	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[245658-24-6]	3,3-dimethylbutanoic acid, 1,1-dimethylpropyl ester				
	V	(333–378)	53.2	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[245658-38-2]	2-methylpropanoic acid, 1,1,3-trimethylbutyl ester				
	V	(333–378)	53.4	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[10250-45-0]	2,6-dimethyl-2-heptanol acetate				
	V	(333–378)	56.4	298	CGC	[1999VER/HEI]
$C_{11}H_{22}O_2$	[112-37-8]	Undecanoic acid				
	TRS		8.38	292		
	FUS		30.2	302	DSC	[2011EGO/MAR]
	TRS	(100–330)	8.13	290.3		[1996DOM/HEA]
	FUS	(100–330)	25.98	301.6	AC	[1982SCH/VAN]
	TRS		7.70	290.0		[1996DOM/HEA]
	FUS		25.1	301.4		[1924GAR/RAN]
	SUB	(303–308)	121.3 ± 1.3	298	ME	[1968BAC/NOV, 1970COX/PIL]
	V	(393–557)	81.3	408	A	[1987STE/MAL]
	V	(310–332)	90.7 ± 2.0	323	ME, TE	[1982DEK/SCH]
	V	(303–308)	97.9 ± 6.3	305		[1968BAC/NOV]
$C_{11}H_{22}O_3$	[38611-89-1]	Butyl 2-butoxypropionate				
	V	(373–398)	40.8	385	A, I	[1987STE/MAL, 1933HEN/MUR]
$C_{11}H_{22}O_3$	[14144-48-0]	Butyl 3-butoxypropionate				
	V	(343–493)	57.6	358	A	[1987STE/MAL]
$C_{11}H_{22}O_3$	[14144-37-7]	Hexyl 3-ethoxypropionate				
	V	(373–514)	56.7	388	A	[1987STE/MAL, 1948DIX/REH]
$C_{11}H_{22}O_3$	[51191-33-4]	Octyl lactate				
	V	(328–528)	71.5	343	A	[1987STE/MAL, 1950REH/DIX]
$C_{11}H_{22}O_3$	[676-08-4]	Peroxyundecanoic acid				
	SUB	(293–303)	125.9 ± 3.4	298	ME	[1980SWA/KWA]
$C_{11}H_{22}O_3$	[3669-80-5]	11-hydroxyundecanoic acid				
	SUB	(307–321)	105		TPTD	[2005CHA/ZIE]
$C_{11}H_{22}O_4$	[502-54-5]	2,3-dihydroxypropyl octanoate				
	V	(463–514)	96.0	488	DSC	[2014DAM/MAT]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{23}Br$	[693-67-4]	1-bromoundecane				
	FUS		33.47	263.3		[1950CRO/SMY]
	V	(407–564)	58.8	422		[1999DYK/SVO]
	V	(398–591)	59.5	413	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{11}H_{23}Cl$	[2473-03-2]	1-chloroundecane				
	V		70.2	298		[2006BOL/NER2]
	V	(370–520)	65.9	298		[1984BOU/FRI, 1991BAS/SVO]
	V	(374–519)	59.4	389	A, DTA	[1987STE/MAL, 1969KEM/KRE]
$C_{11}H_{23}F$	[506-05-8]	1-fluoroundecane				
	V	(373–523)	52.3	388	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{11}H_{23}I$	[4282-44-4]	1-iodoundecane				
	V	(412–618)	74.8	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(422–589)	60.1	437		[1999DYK/SVO]
	V	(412–618)	60.9	427	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{11}H_{23}NO$	[6225-08-7]	*N,N*-dimethyl nonamide				
	V	(411–509)	69.3	426	A	[1987STE/MAL]
$C_{11}H_{23}NO$	[23220-25-9]	*N*-methyl decanamide				
	SUB	(303–325)	102.8 ± 0.8	314	ME	[1959DAV/JON, 1987STE/MAL]
$C_{11}H_{23}NO_2$	[6288-16-0]	*N,N*-dibutyl lactamide				
	V	(393–418)	88.3	405	A	[1987STE/MAL, 1953FEI/FIL]
$C_{11}H_{23}NO_2$	[6280-23-5]	*N*-octyl lactamide				
	V	(428–468)	96.3	443	A	[1987STE/MAL, 1950RAT]
$C_{11}H_{24}$	[1120-21-4]	Undecane				
	TRS		5.05	235.2		
	TRS		1.64	236.3		
	FUS		22.4	247.0	DSC	[2005HUA/SIM]
	TRS		0.1	236.3		
	TRS		7.0	237.4		
	FUS		22.5	247.6	DSC	[2004MON/RAJ]
	TRS		6.86	236.6		[1996DOM/HEA]
	FUS		22.18	247.6		[1954FIN/GRO2]
	TRS		6.34	236.1		[1996DOM/HEA]
	FUS		22.31	247.2	C	[1931HUF/PAR]
	SUB		91.5	236	B	[1963BON]
	V		56.4 ± 0.4	298	C	[2007PAS/KUZ]
	V		56.6 ± 0.6	298	C	[2006RIB/CAB2]
	V		56.2	299	C	[1996VIT/CHA]
	V		55.4	314	C	[1996VIT/CHA]
	V		54.5	324	C	[1996VIT/CHA]
	V		54.0	334	C	[1996VIT/CHA]
	V		53.1	344	C	[1996VIT/CHA]
	V		56.6	298		[1994RUZ/MAJ]
	V	(278–470)	60.0	293	A	[1987STE/MAL]
	V		56.3	298		[1971WIL/ZWO]
	V	(378–470)	49.1	393		[1955CAM/ROS]
$C_{11}H_{24}$	[6975-98-0]	2-methyldecane				
	FUS		25.08	224.3		[1996DOM/HEA, 1971MES/FIN]
	V	(273–353)	55.5	288	A	[1987STE/MAL]
	V	(379–463)	47.4	394	A	[1987STE/MAL]
	V		51.9	328	C	[1984MAJ/SVO3]
	V		50.6	343	C	[1984MAJ/SVO3]
	V		49.5	358	C	[1984MAJ/SVO3]
	V	(273–293)	55.4	283	IPM	[1974OSB/DOU]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{24}$	[13151-34-3]	3-methyldecane				
	V	(340–464)	46.5	355	A	[1987STE/MAL]
$C_{11}H_{24}$	[2847-72-5]	4-methyldecane				
	V	(339–460)	46.6	354	A	[1987STE/MAL]
	V		50.4	343	C	[1984MAJ/SVO3]
	V		49.2	358	C	[1984MAJ/SVO3]
	V		48.5	368	C	[1984MAJ/SVO3]
$C_{11}H_{24}$	[13151-35-4]	5-methyldecane				
	V	(334–452)	46.0	349	A	[1987STE/MAL]
$C_{11}H_{24}$	[2884-06-2]	2,3-dimethylnonane				
	V	(336–460)	45.1	351	A	[1987STE/MAL]
$C_{11}H_{24}$	[17302-24-8]	2,4-dimethylnonane				
	V	(334–452)	46.8	349	A	[1987STE/MAL]
$C_{11}H_{24}$	[62016-37-9]	2,4,6-trimethyloctane				
	V	(325–442)	44.9	340	A	[1987STE/MAL]
$C_{11}H_{24}$	[62016-38-0]	2,4,7-trimethyloctane				
	V		47.6	328	C	[1984MAJ/SVO3]
	V		46.4	343	C	[1984MAJ/SVO3]
	V		45.3	358	C	[1984MAJ/SVO3]
$C_{11}H_{24}N_2O$	[17450-44-1]	1-decyl urea				
	TRS		1.3	294.4		
	FUS		38.3	385.3	DSC	[2005HAS/TAJ]
$C_{11}H_{24}O$	[7289-52-3]	Decyl methyl ether				
	FUS	(12–349)	31.71	243.5	AC	[1996DOM/HEA, 1975AND/MAR]
	V	(341–429)	56.9	356	A	[1987STE/MAL]
	V	(341–471)	57.0	356	A	[1987STE/MAL, 1976AMB/ELL]
	V	(341–471)	62.6	298		[1976AMB/ELL]
	V	(341–471)	45.5	489		[1976AMB/ELL]
	V		62.3 ± 0.3	298	C	[1975FEN/HAR]
$C_{11}H_{24}O$	[16979-32-1]	Ethyl nonyl ether				
	V		60.3 ± 0.1	298	C	[1985KUS]
$C_{11}H_{24}O$	[29379-41-7]	Propyl octyl ether				
	V		58.8 ± 0.1	298	C	[1985KUS]
$C_{11}H_{24}O$	[71112-90-8]	Butyl heptyl ether				
	V		58.2 ± 0.1	298	C	[1985KUS]
$C_{11}H_{24}O$	[78972-97-1]	Heptyl *tert*-butyl ether				
	V		56.6	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{11}H_{24}O$		Hexyl *tert*-amyl ether				
	V		58.6	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{11}H_{24}O$	[405506-46-9]	Propyl *tert*-octyl ether				
	V		50.1 ± 0.3	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{11}H_{24}O$	[112-42-5]	1-undecanol				
	FUS		37.52	306.2	DSC	[2008EGO/MAR]
	FUS		30.59	289.63	DSC	[2005DOM/MAR]
	V		85.8 ± 2.1	298	CGC	[2006NIC/KWE]
	V	(313–354)	79.5	336	GS	[2001KUL/VER2]
	V	(313–354)	84.7	298	GS	[2001KUL/VER2]
	V	(373–423)	86.8	298	CGC	[1995CHI/HOS]
	V	(353–393)	85.6	298	CGC	[1994KOU/HOS, 2000OVA/KOU]
	V	(293–342)	83.6	318		[1992NGU/KAS]
	V	(283–393)	83.5	298		[1999NGU/BER]
	V	(393–523)	68.7	408	A	[1987STE/MAL]

TABLE 10. Phase change enthalpies of C_{11} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(393–534)	68.5	408	A	[1987STE/MAL]
	V	(393–516)	72.3	408		[1973WIL/ZWO]
$C_{11}H_{24}O$	[1653-30-1]	2-undecanol				
	V	(344–505)	61.4	359		[1947STU]
$C_{11}H_{24}O$	[57233-26-8]	2,5-dimethyl-3-isopropyl-3-hexanol				
	V	(321–458)	57.2	336		[1973WIL/ZWO]
$C_{11}H_{24}O$	[5457-41-0]	2,2,4-trimethyl-3-isopropyl-3-pentanol				
	V	(321–458)	67.1	336		[1973WIL/ZWO]
$C_{11}H_{24}OS$	[3079-28-5]	Methyl decyl sulfoxide				
	FUS		41.4	NA	C	[1969COR/GOO]
$C_{11}H_{24}O_2$	[765-04-8]	1,11-undecanediol				
	FUS		45.9	334.1	DSC	[2014BAD/NOW]
	V		123.0 ± 1.9	365	TE	[1994PIA/FER]
	V		131.0 ± 3.0	298	TE	[1994PIA/FER]
$C_{11}H_{24}O_2S$	[54581-75-8]	3-(octylthio)-1,2-propanediol				
	FUS		39.8	306.5	DSC	[1993ACR, 1990VAN/VAN]
$C_{11}H_{24}O_3$	[10438-94-5]	3-(octyloxy)-1,2-propanediol				
	FUS		33.4	296.1	DSC	[1993ACR, 1990VAN/VAN]
$C_{11}H_{24}O_4$	[75899-69-3]	Tripropylene glycol, monoethyl ether				
	V	(317–521)	60.0	332	A	[1987STE/MAL]
$C_{11}H_{24}S$	[5332-52-5]	1-undecanethiol				
	V	(405–563)	59.3	420		[1999DYK/SVO]
$C_{11}H_{24}S_2$	[63476-06-2]	1,11-undecanedithiol				
	V	(444–582)	75.1	459	A	[1987STE/MAL, 1943HAL/REI, 1999DYK/SVO]
$C_{11}H_{25}N$	[7307-55-3]	Undecylamine				
	V	(428–527)	55.1	443	A, E	[1987STE/MAL, 1956MAN2]
$C_{11}H_{25}NO_2$	[929-31-7]	3-(octylamino)-1,2-propanediol				
	FUS		45.1	335.9	DSC	[1993ACR, 1990VAN/VAN]
$C_{11}H_{26}NO_2PS$	[50782-69-9]	Methylthiophosphonic acid, *O*-ethyl-*S*-[2-(*N*,*N*-diisopropylamino)ethyl] ester				
	V		86.0	263		[2012TEV/BRO]
	V		81.0	293		[2012TEV/BRO]
	V		77.3	323		[2012TEV/BRO]
	V		74.4	353		[2012TEV/BRO]
	V		71.3	393		[2012TEV/BRO]
	V		69.0	433		[2012TEV/BRO]
	V		67.2	473		[2012TEV/BRO]
	V	(261–385)	77.9	323	GC	[2001RIT]
	V	(280–315)	101	295	A	[1987STE/MAL, 1999DYK/SVO, 1974FRO]
$C_{11}H_{26}NO_2PS$	[159939-87-4]	*P*-methylphosphonothioic acid, *S*-[2(diethylamino)ethyl] *O*-(2-methylpropyl) ester				
	V		86.1	263		[2012TEV/BRO]
	V		81.6	293		[2012TEV/BRO]
	V		78.2	323		[2012TEV/BRO]
	V		75.5	353		[2012TEV/BRO]
	V		72.8	393		[2012TEV/BRO]
	V		70.6	433		[2012TEV/BRO]
	V		68.9	473		[2012TEV/BRO]
	V	(263–385)	76.6	324	GC	[2001RIT]
$C_{11}H_{26}N_2$	[822-08-2]	Undecane-1,11-diamine				
	FUS	48.08		313.6	DSC	[2002DAL/DEL]
	V	(326–353)	79.4	339	GS	[2011POZ/VER]
	V	(326–353)	84.7 ± 0.4	298	GS	[2011POZ/VER]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds

Molecular formula	CAS Registry Number	Compound				
	Enthalpy	Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}Br_{10}O$	[1163-19-5]	Decabromodiphenyl ether				
	FUS		38.7	580.4	DSC	[2011FU/SUU2]
	SUB	(444–505)	157.1 ± 3.5		ME	[2011FU/SUU2]
$C_{12}Cl_8O$	[39001-02-0]	Octachlorodibenzofuran				
	FUS		28.0	526.3	DSC	[2001SHI/YAM]
	SUB	(298–523)	145.9	411	ME	[2005RYA/GUL]
	SUB	(438–473)	141.7 ± 1.8	455	ME	[2004LI/SHI, 2002LI/SHI]
	SUB	(373–474)	149.4	423	T	[1989ROR, 1986ROR]
$C_{12}Cl_8O_2$	[3268-87-9]	Octachlorodibenzo[b,e][1,4] dioxin				
	FUS		40.3	596.7	DSC	[2001SHI/YAM]
	SUB	(298–523)	147.4	411	ME	[2005RYA/GUL]
	SUB	(463–493)	145.7 ± 4.0	478	ME	[2004LI/SHI]
[Note: The authors of [2004LI/SHI] attribute the difference in the enthalpy of sublimation from their earlier value of 131.1 kJ/mol [2002LI/SHI] to a temperature calibration.]						
	SUB	(448–493)	131.1 ± 0.6	460	ME	[2002LI/SHI]
	SUB	(393–573)	149.8	483	T	[1989ROR, 1986ROR]
$C_{12}Cl_{10}$	[2051-24-3]	Decachlorobiphenyl				
	FUS		41.2	580.3	DSC	[1990DON/DRE]
	FUS		28.7	578.9	DSC	[1984MIL/GHO]
	FUS		39.34	577.7	DSC	[1991ACR, 1974RYB/MAR]
	SUB	(338–358)	U93.6	348	ME	[1997GOO]
	SUB	(324–363)	121.8	343	GS	[1984BUR/ARM]
	V	(343–393)	103.4	368	GC	[1994FAL/BID]
	V	(343–453)	103.4	398	GC	[1990HIN/BID2]
$C_{12}D_{10}$	[1486-01-7]	Biphenyl-d_{10}				
	V		64.9	298	CGC	[2008ZHA/UNH]
$C_{12}D_{10}$	[15067-26-2]	Acenaphthene-d_{10}				
	V		67.2	298	CGC	[2008ZHA/UNH]
$C_{12}D_{18}$	[4342-40-9]	Hexamethylbenzene-d_{18}				
	V		68.2	298	CGC	[2008ZHA/UNH]
$C_{12}D_{10}$	[434-90-2]	Decafluorobiphenyl				
	FUS		20.5	339.6	DSC	[2012HAS/DRA]
	SUB	(297–323)	87.8	310	A	[1987STE/MAL]
	SUB		85.3 ± 2.3			[1974RAD/KAT]
	V	(453–608)	49.9	468	DSC	[1996BAC/GRZ]
$C_{12}F_{18}$	[23174-55-2]	Hexakis(trifluoromethyl)bicyclo[2.2.0]hexa-2,5-diene				
	V	(293–343)	41.4	308	A	[1987STE/MAL, 1970BAR/HAS, 1999DYK/SVO]
$C_{12}F_{18}$	[22736-20-5]	Hexakis(trifluoromethyl)tetracyclo[2.2.0.$0^{2,6}$0^{3,5}]hexane				
	SUB	(293–306)	49.2	299.5	A	[1987STE/MAL]
	V	(313–353)	33.1	328	A	[1987STE/MAL, 1970BAR/HAS, 1999DYK/SVO]
$C_{12}F_{18}$	[22186-64-7]	Hexakis(trifluoromethyl)tricyclo[3.1.0.$0^{2,6}$]hex-3-ene				
	V	(293–353)	38.6	308	A	[1987STE/MAL, 1970BAR/HAS, 1999DYK/SVO]
$C_{12}F_{23}N$	[86630-50-4]	Perfluoro-*N*-(4-methylcyclohexyl)piperidine				
	FUS	(10–347)	8.32	293.3	AC	[2007DRU/EFI]
	FUS		8.6	293.7	DSC	[2007DRU/EFI]
	V		56.6	298	C	[2007DRU/EFI]
$C_{12}F_{26}$	[307-59-5]	Perfluorododecane				
	FUS		24.2	346.6	DSC	[2012HAS/DRA]
	FUS		24.9	346.5	DSC	[2012HAS/DRA]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		21.6	349.3	DSC	[1999VIS/TER]
	TRS	(5–317)	5.07	177.5	AC	[1994LEB/BYK]
	TRS		7.2	177.7		
	FUS		23.8	347.3	DSC	[1994JIN/BOL]
	TRS		6.9	170.2		
	FUS		U 38.16	348.5	DSC	[1986STA]
	SUB	(313–348)	85.8 ± 0.3	298	GS	[2012HAS/DRA]
	V		64.2 ± 2.2	298	CGC	[2012HAS/DRA]
$C_{12}F_{26}O_{10}$	[927699-30-7]	Perfluoro-2,4,6,8,10,13,15.17,19,21-decaoxy-n-docosane				
	V	(397–468)	74.6 ± 2.9	298	EB	[2006DRU/KRO]
$C_{12}F_{27}N$	[311-89-7]	Perfluorotributylamine				
	V		60.3 ± 0.1	298	C	[1995VAR/DRO]
	V	(298–450)	57.4	313	A	[1987STE/MAL]
	V	(371–544)	51.1	386	A	[1987STE/MAL]
	V		60.4 ± 1.2	298		[1977VAR/AMM2, 1977VAR/AMM]
$C_{12}HCl_7O_2$	[58200-70-7]	1,2,3,4,6,7,9-heptachlorodibenzo[b,e][1,4]dioxin				
	SUB	(418–453)	144.2 ± 0.3	435	ME	[2004LI/SHI]
$C_{12}HCl_9$	[52663-77-1]	2,2′,3,3′,4,5,5′,6,6′-nonachlorobiphenyl				
	FUS		22.6	455.8	DSC	[1991ACR, 1984MIL/GHO]
$C_{12}HF_{25}$	[66563-68-6]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorododecane				
	FUS		21.0	345	DSC	[1988HOP/PUG]
	FUS		23.0	344.5	DSC	[1986RUS/RAB]
$C_{12}H_2Cl_6O_2$	[58200-68-3]	1,2,3,4,6,9-hexachlorodibenzo[b,e][1,4]dioxin				
	SUB	(418–438)	128.5 ± 1.5	428	ME	[2004LI/SHI]
$C_{12}H_2C_{18}$	[2136-99-4]	2,2′,3,3′,5,5′,6,6′-octachlorobiphenyl				
	FUS		22.8	433.8	DSC	[1991ACR, 1984MIL/GHO]
	SUB	(302–334)	101.7	318	GS	[1984BUR/ARM]
	V	(343–393)	92.9	368	GC	[1994FAL/BID]
	V	(343–453)	92.9	398	GC	[1990HIN/BID2]
$C_{12}H_3Br_7O$	[327185-13-7]	2′,3,3′,4,4′,5,6-heptabromodiphenyl ether				
	V	(363–473)	115.8	418	GC	[2001WON/LEI]
	V	(403–475)	121.2		CGC	[2001TIT/TOM]
$C_{12}H_3Cl_5O_2$	[58802-08-7]	1,2,4,7,8-pentachlorodibenzo[b,e][1,4]dioxin				
	SUB	(403–428)	125.3 ± 2.3	415	ME	[2004LI/SHI]
$C_{12}H_3Cl_7$	[52663-68-0]	2,2′,3,4′,5,5′,6-heptachlorobiphenyl				
	V	(343-393)	94.0	368	GC	[1994FAL/BID]
$C_{12}H_3Cl_7$	[35065-29-3]	2,2′,3,4,4′,5,5′-heptachlorobiphenyl				
	FUS		24.8	383.4	DSC	[2006NAK/SHI]
	V	(343–393)	96.5	268	GC	[1994FAL/BID]
$C_{12}H_3Cl_7$	[52663-71-5]	2,2′,3,3′,4,4′,6-heptachlorobiphenyl				
	FUS		20.3	395.4	DSC	[1991ACR, 1984MIL/GHO]
	V		109.1	298	CGC	[2001PUR/CHI]
	V	(343–393)	95.9	368	GC	[1994FAL/BID]
$C_{12}H_3Cl_7$	[35065-30-6]	2,2′,3,3′,4,4′,5-heptachlorobiphenyl				
	FUS		26.9	412.2	DSC	[2006NAK/SHI]
	V	(343–393)	98.4	368	GC	[1994FAL/BID]
$C_{12}H_3Cl_7$	[38411-25-5]	2,2′,3,3′,4,5,6′-heptachlorobiphenyl				
	FUS		24.4	400.5	DSC	[2006NAK/SHI]
$C_{12}H_3Cl_7O$	[67517-48-0]	1,2,3,4,8-pentachlorodibenzofuran				
	SUB	(388–413)	125.2 ± 2.0	400	ME	[2004LI/SHI]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_4Br_6O$	[182677-30-1]	2,2′,3,4,4′,5′-hexabromodiphenyl ether				
	V	(403–475)	114.1		CGC	[2001TIT/TOM]
$C_{12}H_4Br_6O$	[68631-49-2]	2,2′,4,4′,5,5′-hexabromodiphenyl ether				
	FUS		30.2	436.6	DSC	[2007KUR/MAE]
	SUB	(343–393)	143	368	GS	[2014KUR/TAK]
	V	(363–473)	107.6	418	GC	[2001WON/LEI]
$C_{12}H_4Cl_2F_6N_4OS$	[120068-37-3]	1-(2,6-dichloro-4-trifluoromethylphenyl)-3-cyano-5-amino-4-(trifluoromethylsulfinyl)pyrazole (fipronil)				
	V	(373–423)	85.0	398	GC	[2007GOE/MCC]
$C_{12}H_4Cl_4O$	[24478-72-6]	1,2,3,4-tetrachlorodibenzofuran				
	SUB	(333–393)	118.5	363	T	[1989ROR, 1986ROR]
$C_{12}H_4Cl_4O$	[51207-31-9]	2,3,7,8-tetrachlorodibenzofuran				
	SUB	(303–344)	124.0	323	T	[1989ROR, 1986ROR]
$C_{12}H_4Cl_4O_2$	[30746-58-8]	1,2,3,4-tetrachlorodibenzo[b,e][1,4]dioxin				
	SUB		116.0	411.5	C	[2007LUK/PAP]
	SUB		118.7	298	C	[2007LUK/PAP]
	SUB	(378–403)	111.3 ± 1.4	390	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[40581-90-6]	1,2,6,7-tetrachlorodibenzo[b,e][1,4]dioxin				
	SUB	(393–413)	120.4 ± 3.3	403	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[33423-92-6]	1,3,6,8-tetrachlorodibenzo[b,e][1,4]dioxin				
	SUB	(378–408)	118.6 ± 3.2	393	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[62470-53-5]	1,3,7,9-tetrachlorodibenzo[b,e][1,4]dioxin				
	SUB	(383–408)	123.6 ± 1.5	395	ME	[2004LI/SHI]
$C_{12}H_4Cl_4O_2$	[1746-01-6]	2,3,7,8-tetrachlorodibenzo[b,e][1,4]dioxin				
	FUS		38.9	578.2		[1986ROR2]
	SUB		124.0	578		[1985SCH/HIL]
$C_{12}H_4Cl_6$	[38380-08-4]	2,3,3′,4,4′,5-hexachlorobiphenyl				
	V		112.6 ± 0.4	298	CGC	[2001PUR/CHI]
	V	(343–93)	94.8	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[35065-27-1]	2,2′,4,4′,5,5′-hexachlorobiphenyl				
	FUS		22.9	375.3	DSC	[2006NAK/SHI]
	V		103.5 ± 0.1	298	CGC	[2001PUR/CHI]
	V	(343–393)	91.4	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[33979-03-2]	2,2′,4,4′,6,6′-hexachlorobiphenyl				
	FUS		17.5	386.7	DSC	[1991ACR, 1984MIL/GHO]
	SUB	(263–303)	103.4 ± 2.3	283	GS	[1994WAN/SHU]
$C_{12}H_4Cl_6$	[38380-04-0]	2,2′,3,4′,5′,6-hexachlorobiphenyl				
	FUS		20.2	348.8	DSC	[2006NAK/SHI]
	V	(343–393)	89.8	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[35694-06-5]	2,2′,3,4,4′,5-hexachlorobiphenyl				
	FUS		21.5	352.6	DSC	[2006NAK/SHI]
$C_{12}H_4Cl_6$	[35065-28-2]	2,2′,3,4,4′,5′-hexachlorobiphenyl				
	V	(343–393)	91.9	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[38380-07-3]	2,2′,3,3′,4,4′-hexachlorobiphenyl				
	FUS		29.2	424.9	DSC	[1991ACR, 1984MIL/GHO]
	V	(343–393)	93.5	368	GC	[1994FAL/BID]
$C_{12}H_4Cl_6$	[38411-22-2]	2,2′,3,3′,6,6′-hexachlorobiphenyl				
	FUS		21.1	385.2	DSC	[1991ACR, 1984MIL/GHO]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_4N_4$	[1518-16-7]	7,7,8,8-tetracyanoquinodimethane				
	SUB		79.0		TGA	[1995YAS/TAK]
	SUB	(452–553)	108 ± 2	500	T	[1984KER/OPP]
	SUB	(382–464)	122 ± 2	423	ME	[1984KER/OPP]
	SUB		126.1 ± 1	413	ME,TE	[1980DEK/GOV]
	SUB	(433–499)	104.8 ± 10	448	A	[1980SWA/KWA, 1987STE/MAL]
	SUB		105 ± 9.2	465	MG	[1963BOY, 1970COX/PIL]
$C_{12}H_5Br_5O$	[182346-21-0]	2,2′,3,4,4′-pentabromodiphenyl ether				
	V	(403–475)		111	CGC	[2001TIT/TOM]
$C_{12}H_5Br_5O$	[327185-11-5]	2,2′,3,3′,4-pentabromodiphenyl ether				
	V	(363–473)	99.1	418	GC	[2001WON/LEI]
$C_{12}H_5Br_5O$	[60348-60-9]	2,2′,4,4′,5-pentabromodiphenyl ether				
	FUS		27.5	355.0	DSC	[2007KUR/MAE]
	SUB	(323–373)	115	348	GS	[2014KUR/TAK]
	V	(363–473)	100.3	418	GC	[2001WON/LEI]
	V	(405–475)	104.8		CGC	[2001TIT/TOM]
$C_{12}H_5Br_5O$	[189084-66-0]	2,2′,4,4′,6-pentabromodiphenyl ether				
	V	(363–473)	101.8	418	GC	[2001WON/LEI]
$C_{12}H_5Cl_3O$	[58802-14-5]	2,4,6-dibenzofuran				
	SUB	(298–418)	121.6	358	ME	[2005RYA/GUL]
	SUB	(338–373)	108.8 ± 2.2	355	ME	[2004LI/SHI]
	V	(448–548)	84.8	498	ME	[2005RYA/GUL]
$C_{12}H_5Cl_3O_2$	[54536-17-3]	1,2,3-trichlorodibenzo[b,e][1,4]dioxin				
	SUB	(363–388)	117.1 ± 3.7	375	ME	[2004LI/SHI]
$C_{12}H_5Cl_3O_2$	[39227-58-2]	1,2,4-trichlorodibenzo[b,e][1,4]dioxin				
	SUB	(348–383)	121.0 ± 1.8	365	ME	[2004LI/SHI]
	SUB	(310–374)	118.8	342	T	[1989ROR, 1986ROR]
$C_{12}H_5Cl_3O_2$	[67028-17-5]	1,3,7-trichlorodibenzo[b,e][1,4]dioxin				
	FUS		30.8	421.7		[1986ROR2]
	SUB	(310–373)	116.2	342	T	[1989ROR, 1986ROR]
$C_{12}H_5Cl_3O_2$	[82306-65-8]	1,7,8-trichlorodibenzo[b,e][1,4]dioxin				
	SUB	(358–388)	113.5 ± 3.3	373	ME	[2004LI/SHI]
$C_{12}H_5Cl_3O_2$	[33857-28-2]	2,3,7-trichlorodibenzo[b,e][1,4]dioxin				
	SUB	(298–423)	123.6	360	ME	[2005RYA/GUL]
	V	(448–548)	95.1	498	ME	[2005RYA/GUL]
$C_{12}H_5Cl_5$	[31508-00-6]	2,3′,4,4′,5-pentachlorobiphenyl				
	FUS		26.6	382.3	DSC	[2006NAK/SHI]
	V	(343–393)	89.3	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[32598-14-4]	2,3,3′,4,4′-pentachlorobiphenyl				
	V	(343–393)	91.1	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[37680-73-2]	2,2′,4,5,5′-pentachlorobiphenyl				
	FUS		18.6	381.1	DSC	[2006NAK/SHI]
	FUS		18.8	350.1	DSC	[1991ACR, 1984MIL/GHO]
	SUB	(303–313)	92.7	308	GS	[1981WES/SIM]
	V	(343–393)	86.4	368	GC	[1994FAL/BID]
	V	(343–453)	83.7	398	GC	[1990HIN/BID2]
$C_{12}H_5Cl_5$	[38379-99-6]	2,2′,3,5′,6-pentachlorobiphenyl				
	FUS		23.3	367.7	DSC	[2006NAK/SHI]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		92.3 ± 0.6	298	CGC	[2001PUR/CHI]
$C_{12}H_5Cl_5$	[73575-54-9]	2,2′,3,6,6′-pentachlorobiphenyl				
	V		89.6 ± 0.2	298	CGC	[2001PUR/CHI]
$C_{12}H_5Cl_5$	[60233-25-2]	2,2′,3′,4,6-pentachlorobiphenyl				
	FUS		20.4	367.7	DSC	[2006NAK/SHI]
$C_{12}H_5Cl_5$	[60145-21-3]	2,2′,4,5′,6-pentachlorobiphenyl				
	V		91.6 ± 0.5	298	CGC	[2001PUR/CHI]
$C_{12}H_5Cl_5$	[38380-02-8]	2,2′,3,4,5′-pentachlorobiphenyl				
	V	(343–393)	87.3	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[38380-01-7]	2,2′,4,4′,5-pentachlorobiphenyl				
	V	(343–393)	86.8	368	GC	[1994FAL/BID]
$C_{12}H_5Cl_5$	[18259-05-7]	2,3,4,5,6-pentachlorobiphenyl				
	FUS		21.8	397.6	DSC	[1991ACR, 1984MIL/GHO]
$C_{12}H_5Cl_5$	[38380-03-9]	2,3,3′,4′,6-pentachlorobiphenyl				
	FUS		16.2	322.4	DSC	[2006NAK/SHI]
$C_{12}H_5Cl_5$	[57465-28-8]	3,3′,4,4′,5-pentachlorobiphenyl				
	FUS		27.1	430.7	DSC	[2006NAK/SHI]
$C_{12}H_6Br_4O$	[5436-43-1]	2,2′,4,4′-tetrabromodiphenyl ether				
	FUS		17.3	356.9	DSC	[2007KUR/MAE]
	SUB	(313–363)	105	338	GS	[2014KUR/TAK]
	V	(363–473)	92.0	418	GC	[2001WON/LEI]
	V	(403–475)	103.1		CGC	[2001PUR/CHI]
$C_{12}H_6Br_4O$	[189084-61-5]	2,3′,4,4′-tetrabromodiphenyl ether				
	V	(363–473)	93.5	418	GC	[2001WON/LEI]
$C_{12}H_6Br_4O$	[327185-09-1]	2,3′,4,6-tetrabromodiphenyl ether				
	V	(363–473)	91.1	418	GC	[2001WON/LEI]
$C_{12}H_6Br_4O$	[189084-63-7]	2,4,4′,6-tetrabromodiphenyl ether				
	V	(363–473)	90.1	48	GC	[2001WON/LEI]
$C_{12}H_6Br_4O$	[93703-48-1]	3,3′,4,4′-tetrabromodiphenyl ether				
	V	(363–473)	95.3	418	GC	[2001WON/LEI]
$C_{12}H_6Cl_2O$	[5409-83-6]	2,8-dichlorodibenzofuran				
	SUB	(298–448)	102.2	373	ME	[2005RYA/GUL]
	SUB	(348–383)	110.3 ± 1.2	360	ME	[2004LI/SHI]
	V	(473–523)	87.9	498	ME	[2005RYA/GUL]
$C_{12}H_6Cl_2O$	[74918-40-4]	3,6-dichlorodibenzofuran				
	FUS		32.4	461.2		[1986ROR2]
	SUB	(305–374)	110.9	340	T	[1989ROR, 1986ROR]
$C_{12}H_6Cl_2O_2$	[38178-38-0]	1,6-dichlorodibenzo [b,e][1,4]dioxin				
	SUB	(348–383)	113.6 ± 2.3	365	ME	[2004LI/SHI]
$C_{12}H_6Cl_2O_2$	[29446-15-9]	2,3-dichlorodibenzo[b,e][1,4]dioxin				
	FUS		27.1	431.6		[1999KOL/DOR]
	SUB	(338–378)	106.2 ± 1.1	358	ME	[2004LI/SHI]
	SUB		108.6 ± 1.0	298	C	[1999KOL/DOR]
	SUB		107.2 ± 0.8	358	C	[1998PAP/KOL]
	SUB		108.6 ± 1.0	298		[1998PAP/KOL]
	SUB	(306–374)	106.2	340	T	[1989ROR, 1986ROR]
$C_{12}H_6Cl_2O_2$	[33857-26-0]	2,7-dichlorodibenzo[b,e][1,4]dioxin				
	SUB	(298–483)	108.8	390	ME	[2005RYA/GUL]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(358–393)	113.8 ± 2.0	375	ME	[2004LI/SHI]
	SUB	(314–374)	105.5	344	T	[1989ROR, 1986ROR]
	V	(503–523)	64.3	513	ME	[2005RYA/GUL]
$C_{12}H_6Cl_2O_2$	[38964-22-6]	2,8-dichlorodibenzo[b,e][1,4]dioxin				
	SUB	(305–363)	109	334	T	[1989ROR, 1986ROR]
$C_{12}H_6Cl_4$	[38444-93-8]	2,2′,3,3′-tetrachlorobiphenyl				
	V	(343–398)	81.8	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[35693-99-3]	2,2′,5,5′-tetrachlorobiphenyl				
	FUS		20.8	357.1	DSC	[2006NAK/SHI]
	SUB	(323–353)	102.0 ± 0.5	338	ME	[2005NAK/SHI]
	SUB	(303–312)	94.6	308	GS	[1981WES/SIM]
	V	(343–398)	80.8	368	GC	[1994FAL/BID]
	V	(343–453)	79	398	GC	[1990HIN/BID2]
$C_{12}H_6Cl_4$	[41464-39-5]	2,2′,3,5′-tetrachlorobiphenyl				
	FUS		18.3	320.4	DSC	[2006NAK/SHI]
$C_{12}H_6Cl_4$	[33284-53-6]	2,3,4,5-tetrachlorobiphenyl				
	FUS		25.2	363.9	DSC	[1991ACR, 1984MIL/GHO]
	SUB	(253–393)	88.7 ± 1.2	273	GS	[1994WAN/SHU]
$C_{12}H_6Cl_4$	[32598-10-0]	2,3′,4,4′-tetrachlorobiphenyl				
	FUS		27.9	398.4	DSC	[2006NAK/SHI]
	SUB	(348–373)	105.9 ± 2.5	353	ME	[2005NAK/SHI]
	V	(343–398)	83.3	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[32598-11-1]	2,3′,4′,5-tetrachlorobiphenyl				
	FUS		27.5	376.7	DSC	[2006NAK/SHI]
	V	(343–398)	84.8	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[41464-40-8]	2,2′,4,5′-tetrachlorobiphenyl				
	FUS		23.4	339.1	DSC	[1991ACR, 1984MIL/GHO]
	V		87.4 ± 0.8	298	CGC	[2001PUR/CHI]
$C_{12}H_6Cl_4$	[41464-41-9]	2,2′,5,6′-tetrachlorobiphenyl				
	V		84.9 ± 0.6	298	CGC	[2001PUR/CHI]
	V	(343–398)	78.8	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4$	[32598-13-3]	3,3′,4,4′-tetrachlorobiphenyl				
	FUS		34.5	451.2	DSC	[2006NAK/SHI]
	SUB	(383–403)	121.6 ± 1.3	393	ME	[2005NAK/SHI]
	V	(343–393)	87.2	368	GC	[1994FAL/BID]
$C_{12}H_6Cl_4O_2S$	[116-29-0]	1,2,4-trichloro-5-((4-chlorophenyl)sulfonyl)benzene				
	FUS		28.94	419.9	DSC	[1991ACR, 1990DON/DRE]
$C_{12}H_6O_3$	[81-84-5]	1-8-naphthalic anhydride (protect)				
	FUS		23.32	542.3	DSC	[1990DON/DRE]
$C_{12}H_7Br_3O$	[41318-75-6]	2,4,4′-tribromodiphenyl ether				
	V	(403–475)	94.1		CGC	[2001TIT/TOM]
$C_{12}H_7Br_3O$	[147217-81-0]	3,4,4′-tribromodiphenyl ether				
	V	(363–473)	86.7	418	GC	[2001WON/LEI]
$C_{12}H_7Br_3O$	[155999-95-4]	2,4,6-tribromodiphenyl ether				
	V	(363–473)	85.1	418	GC	[2001WON/LEI]
$C_{12}H_7Br_3O$	[189084-60-4]	2,4′,6-tribromodiphenyl ether				
	V	(363–473)	83.3	418	GC	[2001WON/LEI]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_7Br_3O$	[147217-78-5]	2′,3,4-tribromodiphenyl ether				
	V	(363–473)	81.0	418	GC	[2001WON/LEI]
$C_{12}H_7Br_3O$	[147217-80-9]	3,3′,4-tribromodiphenyl ether				
	V	(363–473)	86.4	418	GC	[2001WON/LEI]
$C_{12}H_7ClO$	[51230-49-0]	2-chlorodibenzofuran				
	SUB	(298–373)	95.1	335	ME	[2005RYA/GUL]
	V	(378–548)	75.3	463	ME	[2005RYA/GUL]
$C_{12}H_7ClO_2$	[39227-53-7]	1-chlorodibenzo[b,e][1,4]dioxin				
	FUS		23.2	378.2		[1986ROR2]
	SUB	(298–373)	96.3	335	ME	[2005RYA/GUL]
	SUB	(308–343)	100.5 ± 0.8	325	ME	[2004LI/SHI]
	SUB		95.2 ± 1.1	298	C	[1999KOL/DOR]
	SUB		95.2			[1998PAP/LUK]
	SUB	(303–338)	98.6	321	T	[1989ROR, 1986ROR]
	V	(398–523)	79.9	460	ME	[2005RYA/GUL]
$C_{12}H_7ClO_2$	[39227-54-8]	2-chlorodibenzo[b,e][1,4]dioxin				
	FUS		23.1	362.2		[1986ROR2]
	SUB	(308–343)	98.1 ± 1.1	298	ME	[2004LI/SHI]
	SUB		97.2	298	C	[1999KOL/DOR]
	SUB		97.2 ± 0.6	298	C	[1996PAP/KOL]
	SUB	(305–348)	97.2	327	T	[1989ROR, 1986ROR]
$C_{12}H_7Cl_2NO_3$	[1836-75-5]	2,4-dichlorophenyl 4-nitrophenyl ether				
	FUS		22.96	342	DSC	[1990DON/DRE]
	V	(328–403)	90.4	343	A	[1987STE/MAL]
$C_{12}H_7Cl_3$	[38444-85-8]	2,3,4′-trichlorobiphenyl				
	FUS		20.2	344.0	DSC	[2006NAK/SHI]
$C_{12}H_7Cl_3$	[15862-07-4]	2,4,5-trichlorobiphenyl				
	FUS		22.8	349.5	DSC	[1991ACR, 1984MIL/GHO]
	V	(343–393)	76.6	368	GC	[1994FAL/BID]
$C_{12}H_7Cl_3$	[35693-92-6]	2,4,6-trichlorobiphenyl				
	FUS		16.5	334.3	DSC	[1991ACR, 1984MIL/GHO]
	V	(343–393)	74.4	368	GC	[1994FAL/BID]
$C_{12}H_7Cl_3$	[16606-02-3]	2,4′,5-trichlorobiphenyl				
	FUS		19.8	336.5	DSC	[2006NAK/SHI]
	V	(343–398)	77.7	368	GC	[1994FAL/BID]
$C_{12}H_7Cl_3$	[37680-65-2]	2,2′,5-trichlorobiphenyl				
	FUS		18.9	316.6	DSC	[2006NAK/SHI]
	SUB	(303–313)	93.7 ± 6.2	308	ME	[2005NAK/SHI]
	V		80.2 ± 0.9	298	CGC	[2001PUR/CHI]
$C_{12}H_7Cl_3$	[7012-37-5]	2,4,4′-trichlorobiphenyl				
	FUS		19.7	329.3	DSC	[2006NAK/SHI]
	SUB	(313–328)	96.7 ± 3.4	320	ME	[2005NAK/SHI]
$C_{12}H_7Cl_3$	[38444-86-9]	2′,3,4-trichlorobiphenyl				
	FUS		19.5	332.3	DSC	[2006NAK/SHI]
	SUB	(313–328)	98.2 ± 5.5	320	ME	[2005NAK/SHI]
$C_{12}H_7Cl_3O_2$	[3380-34-5]	5-chloro-2-(2,4-dichlorophenoxy)phenol (triclosan)				
	FUS		17.75	331.1	DSC	[2012LIM/JAN]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_8$	[208-96-8]	Acenaphthylene				
	TRS	(5–330)	1.4	116.6	AC	[1994CHE/WES]
[Note: Heat capacity versus temperature curve showed two peaks—the total transition enthalpy is 1.4 kJ/mol.]						
	FUS		10.96	362	DSC	[1990DON/DRE]
[Note: The authors of [1990DON/DRE] gave the chemical name of the compound as acenaphthylene; however, they gave the CAS Registry Number of acenaphthene.]						
	FUS		6.95	362.6	C	[1969SAD/STE]
	SUB	(297–318)	74.2 ± 8.2	307	ME	[2008GOL/SUU3]
	SUB		70.0	298	CGC-DSC	[1998CHI/HES]
	SUB	(313–453)	77.2	383	GS	[1995NAS/LEN]
	SUB	(238–323)	73.2 ± 0.5	303	GS	[1983SON/ZOL]
	SUB		73.0 ± 0.4	298	C	[1972MOR]
	SUB	(286–318)	71.1 ± 1.3		A	[1970COX/PIL, 1987STE/MAL, 1965BOY/CHR]
	V		64.6 ± 5.8	298	CGC	[2008ROU/TEM]
	V		69.1 ± 2.2	298	GC	[2006HAF/PAR]
$C_{12}H_8$	[259-79-0]	Biphenylene				
	SUB	(313–453)	82.7	383	GS	[1995NAS/LEN]
	SUB	(309–336)	U 104.5	319		[1989ROR/RUT]
	SUB		87.3 ± 0.3	298	B	[1980OSB/SCO]
	SUB		83.8 ± 0.3		C	[1972MOR]
	SUB	(371–381)	U 128.9 ± 2	376		[1955CAS/SPR, 1970COX/PIL, 1987STE/MAL]
$C_{12}H_8Br_2$		(*dl*)-1,2-dibromoacenaphthene				
	FUS		25.1	397	DSC	[1976LEC/COL]
$C_{12}H_8Br_2$		(*d*)-1,2-dibromoacenaphthene				
	FUS		26.36	416	DSC	[1976LEC/COL]
$C_{12}H_8Br_2$	[92-86-4]	4,4′-dibromobiphenyl				
	FUS		28.38	440.7	DSC	[2009RAI/RED]
	SUB	(358–404)	105.5 ± 0.4	298	GS	[2015SOL/VAR]
$C_{12}H_8Br_2O$	[171977-44-9]	2,4-dibromodiphenyl ether				
	V	(363–473)	75.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[189084-59-1]	3,4-dibromodiphenyl ether				
	V	(363–473)	77.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[83694-71-7]	3,4′-dibromodiphenyl ether				
	V	(363–473)	77.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[2050-47-7]	4,4′-dibromodiphenyl ether				
	FUS		18.4	331.9	DSC	[2011FU/SUU2]
	FUS		19.6	331.7	DSC	[2007KUR/MAE]
	SUB	(300–328)	102.0 ± 3.5		ME	[2011FU/SUU2]
	V	(363–473)	78.0	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[147217-71-8]	2,4′-dibromodiphenyl ether				
	V	(363–473)	76.4	418	GC	[2001WON/LEI]
$C_{12}H_8Br_2O$	[51930-04-2]	2,6-dibromodiphenyl ether				
	V	(363–473)	73.1	418	GC	[2001PUR/CHI]
$C_{12}H_8Cl_2$	[13029-08-8]	2,2′-dichlorobiphenyl				
	FUS		16.6	330.9	DSC	[2006NAK/SHI]
	SUB	(303–323)	87.8 ± 1.2	313	ME	[2005NAK/SHI]
	SUB	(310–328)	96.1	314	ME	[1964SMI/GOR]
	SUB	(310–328)	96.2 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL, 1987STE/MAL]
$C_{12}H_8Cl_2$	[33284-50-3]	2,4-dichlorobiphenyl				
	V		75.3 ± 1.5	298	CGC	[2001PUR/CHI]
	V	(343–393)	73.5	368	GC	[1994FAL/BID]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_8Cl_2$	[34883-43-7]	2,4′-dichlorobiphenyl				
	FUS		18.0	316.7	DSC	[2006NAK/SHI]
	SUB	(303–313)	94.3 ± 5.6		ME	[2006NAK/SHI]
$C_{12}H_8Cl_2$	[34883-39-1]	2,5-dichlorobiphenyl				
	V		76.8 ± 0.4	298	CGC	[2001PUR/CHI]
	V	(343–393)	73.9	368	GC	[1994FAL/BID]
$C_{12}H_8Cl_2$	[33146-45-1]	2,6-dichlorobiphenyl				
	FUS		12.6	307.9	DSC	[1991ACR, 1984MIL/GHO]
$C_{12}H_8Cl_2$	[2050-67-1]	3,3′-dichlorobiphenyl				
	V		81.0 ± 0.2	298	CGC	[2001PUR/CHI]
	V	(343–393)	75.4	368	GC	[1994FAL/BID]
$C_{12}H_8Cl_2$	[2050-68-2]	4,4′-dichlorobiphenyl				
	FUS		22.8	421.1	DSC	[2006NAK/SHI]
	SUB	(263–303)	95.3 ± 1.3	283	GS	[1994WAN/SHU]
	SUB	(303–360)	103.7	331	ME	[1964SMI/GOR, 1987STE/MAL]
	SUB	(303–360)	103.8 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL]
	V		81.4 ± 0.3	298	CGC	[2001PUR/CHI]
	V	(343–393)	76.0	368	GC	[1994FAL/BID]
$C_{12}H_8Cl_2$		(*dl*)-1,2-dichloroacenaphthene				
	FUS		20.5	339	DSC	[1976LEC/COL]
$C_{12}H_8Cl_2$		(*d*)-1,2-dichloroacenaphthene				
	FUS		21.34	375	DSC	[1976LEC/COL]
$C_{12}H_8Cl_2O_2S$	[80-07-9]	4,4′-dichlorodiphenylsulfone				
	FUS	(14–480)	24.4	422	AC	[1996DOM/HEA, 1985NOV/TSV]
	V	(463–573)	59.7	478		[1999DYK/SVO, 1979MIZ/DAN]
$C_{12}H_8Cl_2O_3S$	[80-33-1]	4-chlorophenyl 4-chlorobenzenesulfonate				
	FUS		23.63	360	DSC	[1991ACR, 1990DON/DRE]
$C_{12}H_8Cl_3NO_2$	[77765-39-0]	2,2,4-trichloro-5-[(2-methylphenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	85	468	GC	[1980SHA/SAD]
$C_{12}H_8Cl_3NO_2$	[77765-40-3]	2,2,4-trichloro-5-[(2-methoxyphenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	84.6	468	GC	[1980SHA/SAD]
$C_{12}H_8Cl_3NO_2$	[73373-64-5]	2,2,4-trichloro-5-[(3-methoxyphenyl)amino]-4-cyclopentene-1,3-dione				
	V	(453–483)	63.1	468	GC	[1980SHA/SAD]
$C_{12}H_8Cl_6$	[309-00-2]	1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-*endo-exo*-1,4:5,8-dimethylnaphthalene (aldrin)				
	TRS		16.59	383.7		
	FUS		4.15	562.4	DSC	[1995KSI/NAG]
	SUB	(309–343)	91.8	326	GS	[1982GRA/FOS]
	V	(343–453)	75.1	398	GC	[1990HIN/BID2]
$C_{12}H_8Cl_6O$	[60-57-1]	1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-*endo-exo*-5,8-dimethanonaphthalene (dieldrin)				
	TRS		19.33	405.6		
	FUS		3.04	452.9	DSC	[1995KSI/NAG]
	SUB	(308–348)	93.8	328	GS	[1982GRA/FOS]
	SUB	(293–313)	98.7	303	GS	[1969SPE/CLI]
	V	(343–453)	82.5	398	GC	[1990HIN/BID2]
$C_{12}H_8F_2$	[388-82-9]	2,2′-difluorobiphenyl				
	SUB	(301–319)	95.1	310	A	[1987STE/MAL, 1964SMI/GOR]
	SUB	(301–318)	95 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_8F_2$	[2050-68-2]	4,4′-difluorobiphenyl				
	SUB	(294–318)	91.4	306	ME	[1964SMI/GOR]
	SUB	(294–318)	91.2 ± 4.2	298	ME	[1964SMI/GOR, 1970COX/PIL]
$C_{12}H_8N_2$	[230-46-6]	1,7-phenanthroline				
	FUS		25.6	351.7	DSC	[2016BRU/LAP]
	SUB	(3154–340)	113.2 ± 0.9	329	TE	[2016BRU/LAP]
	SUB	(315–340)	114.2 ± 1.0	298	TE	[2016BRU/LAP]
	V	(380–428)	72.1 ± 0.7	401	ITG	[2016BRU/LAP]
	V		79.4 ± 4.7	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{12}H_8N_2$	[66-71-7]	1,10-phenanthroline				
	FUS		13.4	390.9	DSC	[2016BRU/LAP]
	FUS		15.5	391.7	AC	[2010CHI/KAZ]
	FUS		11.8	391.1	DSC	[2007BON/CAT]
	FUS		15.0	398.0	DSC	[1986AIR/SIL]
	SUB	(359–387)	105.1 ± 0.2	373	ME	[2016BRU/LAP]
	SUB	(321–367)	104.3 ± 0.5	339	ME	[2016BRU/LAP]
	SUB		106.5 ± 1.1	298	ME	[2016BRU/LAP]
	SUB		98.3		ME	[1972MIL]
	V	(393–420)	74.9 ± 0.8	407	ITG	[2016BRU/LAP]
	V		86.2 ± 1.2	298	CGC	[2010LIP/CHI]
	V		77.7 ± 0.1	520	EB	[2010CHI/KAZ]
	V		74.9 ± 0.2	560	EB	[2010CHI/KAZ]
	V		72.1 ± 0.2	600	EB	[2010CHI/KAZ]
$C_{12}H_8N_2$	[230-07-9]	4,7-phenanthroline				
	FUS		22.4	444.1	DSC	[2016BRU/LAP]
	SUB	(340–369)	116.7 ± 0.8	353	TE	[2016BRU/LAP]
	SUB	(340–369)	118.4 ± 1.2	298	TE	[2016BRU/LAP]
	V	(463–496)	81.5 ± 0.7	480	ITG	[2016BRU/LAP]
	V		80.8 ± 4.7	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{12}H_8N_2$	[92-82-0]	Phenazine				
	FUS		19.3	446.6	DSC	[2016BRU/LAP]
	FUS (α)		23.5	447.2		
	FUS (β)		23.6	448.2	DSC	[2010BRA/GRE]
	FUS	(6–522)	24.92	447.9	AC	[2010CHI/KAZ2]
	FUS		20.92	450.2	DSC	[1975MCE/SAN]
	SUB	(316–343)	101.7 ± 1.2	330	ME	[2016BRU/LAP]
	SUB	(292–324)	103.4 ± 1.7	307	ME	[2016BRU/LAP]
	SUB		103.3 ± 1.7	298	ME	[2016BRU/LAP]
	SUB		95.9 ± 0.4	298		[2010CHI/KAZ2]
	SUB		94.3 ± 0.4	354		[2010CHI/KAZ2]
	SUB		92.7 ± 0.4	354		[1991SAB/WAT]
	SUB		97.0 ± 0.4	298		[1991SAB/WAT]
	SUB		91.8 ± 2.1	298	C	[1990LEI/PIL]
	SUB	(280–318)	92.4	295	A	[1987STE/MAL]
	SUB		99.9 ± 2.5		ME,GS	[1980ARS]
	SUB	(303–328)	90.4 ± 2.5	298	TE	[1975DEK/VAN]
	SUB	(303–323)	90.0 ± 1.5	298	TCM	[UR/DEK, 1975DEK/VAN]
	SUB	(281–293)	90.4 ± 1.7		LE	[1975MCE/SAN]
	SUB		U 81.5			[1946ALB/WIL]
	V	(450–469)	71.4 ± 0.6	459	ITG	[2016BRU/LAP]
	V		76.6 ± 1.1	298	CGC	[2010LIP/CHI]
	V	(450–470)	66.1 ± 0.1	450	IPM	[2010CHI/KAZ2]
	V	(450–470)	65.5 ± 0.1	460	IPM	[2010CHI/KAZ2]
	V	(450–470)	65.0 ± 0.1	470	IPM	[2010CHI/KAZ2]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_8N_2$	[230-17-1]	Benzo[c]cinnoline				
	FUS		20.92	432.2	DTA	[1977SCH/PET]
	SUB	(320–360)	101.7 ± 0.2	340	ME	[1977SCH/PET, 1987STE/MAL]
	SUB		113		ME	[1972MIL]
	V		88.6 ± 3.0	298	CGC	[2010LIP/PLI]
	V		81.9 ± 1.1	298	CGC	[2010LIP/CHI]
$C_{12}H_8N_2O$	[304-81-4]	Phenazine-*N*-oxide				
	SUB		100. ± 1.3	298	C	[1990LEI/PIL]
$C_{12}H_8N_2O_4$	[1528-74-1]	4,4′-dinitrobiphenyl				
	SUB	(441–428)	104.6 ± 1.8	420	ME	[1953SEK/SUZ, 1960JON]
$C_{12}H_8N_2O_5$	[101-63-3]	4,4′-dinitrodiphenyl ether				
	FUS	(323–500)	27.1	418.3	DSC	[2011TKA/DRU]
	FUS		10.29	418.2	C	[1993ACR, 1978MAR/CIO2, 1996DOM/HEA]
$C_{12}H_8N_4$	[1017-93-2]	Bicyclo[2.2.2]oct-5-ene-2,2,3,3-tetracarbonitrile				
	TRS		18.91	476.7		
	FUS		4.54	533.2	DSC	[1984WEI/LEF]
	SUB		111.7 ± 5.4	433		[1972ROG2, 1977PED/RYL]
$C_{12}H_8N_4$	[7120-73-2]	Dibenzo-1,3a,4,6a-tetraazapentalene				
	SUB	(363–433)	70.3 ± 1.7	400		[1967CHI/SIM]
$C_{12}H_8N_4$	[2055-55-2]	Dibenzo-1,3a,6,6a-tetraazapentalene				
	SUB	(363–443)	42.3 ± 3.4	403		[1967CHI/SIM]
$C_{12}H_8O$	[132-64-9]	Dibenzofuran				
	FUS		U15.24	355.1	DSC	[2014BAE/DAH]
	FUS		19.40	355.52	DSC	[2013FRE/GOM]
	FUS		18.6	354.7	DSC	[2010KES/AUC]
	FUS		19.41	355.1	DSC	[2007HAF/MAH]
	FUS		19.0	351.9	DSC	[2001SHI/YAM]
	FUS		20.5	355.8	DSC	[2000LIS/JAM]
	FUS		17.6	355.2	DSC	[2000MAH/SOL]
	FUS	(245–375)	19.34	355.24	AC	[1995FUJ/FUJ]
	FUS		19.29	355.7	AC	[1990CHI/GAM]
	SUB		85.5 ± 1.0	298	C	[2013FRE/GOM]
	SUB	(295–318)	82.1 ± 1.5	307	ME	[2004LI/SHI, 2002LI/SHI]
	SUB	(293–353)	82.0 ± 0.2	298	GS	[2003VER2]
	SUB		84.4 ± 0.7	298		[1990CHI/GAM]
	SUB		76.5 ± 0.2	298		[1987SAB/ANT]
	SUB	(304–343)	85.6	324	T	[1989ROR, 1986ROR]
	SUB	(303–343)	79.1	323		[1986HAN/ECK]
	SUB	(299–346)	76.7	323	GS	[1986SAT/INO]
	SUB		88.7 ± 2.1			[1958CAS/FLE3]
	V	(323–473)	66.2	398	GC	[2002LEI/CHA]
	V	(403–559)	55.1	418	A	[1987STE/MAL]
	V	(435–618)	48.5	465		[1982SIV/KOB]
	V	(435–618)	47.8	505		[1982SIV/KOB]
	V	(435–618)	47.1	555		[1982SIV/KOB]
	V	(403–418)	66.2	410		[1958CAS/FLE3]
$C_{12}H_8OS$	[262-20-4]	Phenoxathiin				
	FUS		19.43	329.6	DSC	[2008MON/SAN]
	FUS		20.27	328.8		[1993STE/CHI]
	SUB	(304–324)	96.3 ± 2.2	314	ME	[2010GOL/SUU]
	SUB	(308–324)	95.6 ± 0.5	298	ME	[2008MON/SAN]
	V	(318–373)	77.3 ± 0.1	298	ST	[2008MON/SAN]
	V	(365–640)	68.7	400	EB,IPM	[1993STE/CHI]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(365–640)	66.0	440	EB,IPM	[1993STE/CHI]
	V	(365–640)	63.4	480	EB,IPM	[1993STE/CHI]
	V	(365–640)	60.8	520	EB,IPM	[1993STE/CHI]
	V	(365–640)	58.0	560	EB,IPM	[1993STE/CHI]
	V	(365–640)	55.1	600	EB,IPM	[1993STE/CHI]
$C_{12}H_8OS_2$	[49833-13-8]	Diphenylene-2,2′-disulfide *S*-oxide				
	FUS		17.99	407	DSC	[1996DOM/HEA, 1975CUC]
$C_{12}H_8O_2$	[262-12-4]	Dibenzo[b,e][1,4]dioxin				
	FUS		23.9	389.9	DSC	[2001SHI/YAM]
	FUS		23.2	395.7		[1986ROR2]
	SUB	(303–333)	93.6 ± 1.2	318	ME	[2002LI/SHI, 2004LI/SHI]
	SUB		91.5 ± 0.8	298	C	[2002PIM/MEL]
	SUB		89.6 ± 0.7	298	C	[1999KOL/DOR]
	SUB		89.6 ± 0.7	318	C	[1997LUK/KOL]
	SUB	(303–333)	92.3	318	T	[1989ROR, 1986ROR]
$C_{12}H_8O_2S$	[1016-05-3]	Dibenzothiophene sulfone				
	FUS		27.17	509.2	DSC	[2007RAM/ROJ]
	FUS		23.72	507.8	DSC	[UR/MAC]
$C_{12}H_8S$	[132-65-0]	Dibenzothiophene				
	FUS		21.6	371.8	DSC	[2000LIS/JAM]
	FUS	(5–515)	21.7	371.8	AC,DSC	[1991CHI/KNI]
	FUS	(220–560)	21.6	371.0	DSC	[1983ORO/MRA, 1996DOM/HEA]
	FUS		22.35	372.4	DSC	[1980KRA/PIG]
	SUB		93.2 ± 0.5	298	C	[2009FRE/GOM]
	SUB		85.1 ± 0.4	298	C	[1987SAB/ANT, 1979SAB]
	SUB	(303–348)	91.2	325	T	[1986HAN/ECK]
	SUB	(333–363)	90.7	348	GS	[1981EDW/PRA]
	SUB		97.5	298		[1975AUB/MAY, 2009FRE/GOM]
	V	(413–473)	78.3 ± 1.1	298	GC	[2006HAF/PAR]
	V	(373–424)	65.6	388		[1999DYK/SVO]
	V	(424–608)	63.4	439		[1999DYK/SVO]
	V		69.5 ± 0.3	380	EB,IPM	[1995STE/CHI]
	V		66.8 ± 0.3	420	EB,IPM	[1995STE/CHI]
	V		64.3 ± 0.3	460	EB,IPM	[1995STE/CHI]
	V		61.8 ± 0.3	500	EB,IPM	[1995STE/CHI]
	V		59.3 ± 0.3	540	EB,IPM	[1995STE/CHI]
	V		56.8 ± 0.3	580	EB,IPM	[1995STE/CHI]
	V		54.0 ± 0.3	620	EB,IPM	[1995STE/CHI]
	V	(375–662)	68.0 ± 0.1	400	EB,IPM	[1991CHI/KNI]
	V	(375–662)	64.9 ± 0.1	450	EB,IPM	[1991CHI/KNI]
	V	(375–662)	61.8 ± 0.1	500	EB,IPM	[1991CHI/KNI]
	V	(375–662)	58.7 ± 0.1	550	EB,IPM	[1991CHI/KNI]
	V	(375–662)	55.4 ± 0.3	600	EB,IPM	[1991CHI/KNI]
	V	(375–662)	51.8 ± 0.4	650	EB,IPM	[1991CHI/KNI]
	V	(385–574)	60.1	400	A	[1987STE/MAL]
	V		56.9	590	C	[1984MRA/KEW]
	V		55.3	610	C	[1984MRA/KEW]
	V		53.6	630	C	[1984MRA/KEW]
	V	(425–607)	63.1	465		[1982SIV/KOB]
	V	(425–607)	62.6	505		[1982SIV/KOB]
	V	(425–607)	62.3	555		[1982SIV/KOB]
	V	(373–403)	69.4	385	GS	[1981EDW/PRA]
$C_{12}H_8S_2$	[92-85-3]	Thianthrene				
	FUS	(5–518)	27.55	429.6	AC,DSC	[1993STE/CHI]
	FUS		25.44	428.4		[1989SAB/ELW]
	SUB	(344–364)	105.1 ± 0.6	354	ME	[2010MON/SOU]
	SUB	(344–364)	106.4 ± 0.6	298	ME	[2010MON/SOU]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		103.6 ± 0.4	350	IP	[1993STE/CHI]
	SUB	(338–368)	98.6 ± 0.5	353		[1989SAB/ELW]
	SUB		99.4 ± 0.6	298		[1989SAB/ELW]
	SUB	(358–428)	98.0	393	GS	[1981EDW/PRA]
	SUB	(338–368)	97.5 ± 6.3	353	HSA	[1979SAN/EPS]
	V	(429–460)	71.2	444		[1999DYK/SVO]
	V	(460–539)	68.4	475		[1999DYK/SVO]
	V	(395–639)	72.7	440	EB,IPM	[1993STE/CHI]
	V	(395–639)	69.9	480	EB,IPM	[1993STE/CHI]
	V	(395–639)	67.2	520	EB,IPM	[1993STE/CHI]
	V	(395–639)	64.5	560	EB,IPM	[1993STE/CHI]
	V	(395–639)	61.7	600	EB,IPM	[1993STE/CHI]
	V	(430–593)	69.1	465		[1983SIV/KOB]
	V	(430–593)	68.7	515		[1983SIV/KOB]
	V	(428–448)	71.1	438	GS	[1981EDW/PRA]
$C_{12}H_8S_2$	[230-26-2]	Dibenzo[c,e][1,2]dithiin				
	FUS		19.3	386.2	DSC	[1975CUC2]
$C_{12}H_8S_3$	[1081-34-1]	2,2′:5′,2″-terthiophene				
	FUS		20.7	365.3	DSC	[2011COS/LIM]
	SUB		112.5 ± 0.3	351	ME	[2011COS/LIM]
	SUB		114.7 ± 0.4	298	ME	[2011COS/LIM]
$C_{12}H_8S_3$	[81294-16-8]	3,2′:5′,3″-terthiophene				
	FUS		29.9	461.0	DSC	[2011COS/LIM]
	SUB		119.0 ± 0.7	382	ME	[2011COS/LIM]
	SUB		122.6 ± 0.8	298	ME	[2011COS/LIM]
$C_{12}H_9Br$	[92-66-0]	4-bromobiphenyl				
	TRS		4.3	337.1		
	FUS		16.3	362.1	DSC	[2015SOL/VAR]
	SUB	(303–360)	91.0 ± 0.3	298	GS	[2015SOL/VAR]
	V	(371–583)	62.2	386	A	[1987STE/MAL, 1947STU]
$C_{12}H_9Br$	[2051-98-1]	5-bromoacenaphthene				
	SUB	(295–321)	87.4 ± 2.6		ME	[2008GOL/SUU2]
$C_{12}H_9BrO$	[7025-06-1]	5-bromoacenaphthene				
	V	(363–473)	63.7	418	GC	[2001WON/LEI]
$C_{12}H_9BrO$	[6876-00-2]	3-bromodiphenyl ether				
	V	(363–473)	65.4	418	GC	[2001WON/LEI]
$C_{12}H_9BrO$	[101-55-3]	4-bromodiphenyl ether				
	V	(463–673)	64.6	478	A	[1987STE/MAL]
$C_{12}H_9BrO$	[92-03-5]	2-bromo-4-phenylphenol				
	V	(373–584)	57.8	388	A	[1987STE/MAL, 1947STU]
$C_{12}H_9Br_2NO_2S$	[901442-58-8]	*N*-(2,4-dibromphenyl)benzene sulfonamide				
	FUS		31.9	411.8	DSC	[2014PER/KAZ]
$C_{12}H_9Cl$	[2051-60-7]	2-chlorobiphenyl				
	FUS	(12–327)	14.54	304.9		[1991ACR, 1974GEI/DZH2]
	FUS		15.3	305.3	DSC	[1984MIL/GHO]
	V		72.1 ± 2.0	298	CGC	[2001PUR/CHI]
	V	(343–393)	64.4	368	GC	[1994FAL/BID]
	V	(409–540)	57.8	424	A	[1987STE/MAL, 1975GEI/DZH2]
	V	(306–350)	74.5	328	ME	[1983FER/PIA]
	V	(410–540)	55.8	424	QM	[1975GEI/DZH]
	V	(362–541)	61.1	377	A	[1987STE/MAL, 1947STU]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_9Cl$	[2051-61-8]	3-chlorobiphenyl				
	V		74.3 ± 1.1	298	CGC	[2001PUR/CHI]
	V	(343–393)	66.6	368	GC	[1994FAL/BID]
	V	(310–359)	66.2	335	ME	[1983FER/PIA]
	V	(341–402)	69.2	372	TE	[1983FER/PIA]
	V	(452–536)	66.0	494	QM	[1975GEI/DZH]
$C_{12}H_9Cl$	[2051-62-9]	4-chlorobiphenyl				
	FUS	(12–370)	13.32	348.6	AC	[1991ACR, 1975GEI/DZH2]
	SUB	(253–303)	86.0 ± 0.9	278	GS	[1994WAN/SHU]
	SUB	(306–346)	73.7 ± 0.7	326	TE,ME	[1983FER/PIA]
	V		71.6 ± 0.7	298	CGC	[2001PUR/CHI]
	V	(343–393)	66.8	368	GC	[1994FAL/BID]
	V	(451–536)	65.9	466	A	[1987STE/MAL, 1975GEI/DZH2]
	V	(348–409)	67.8	378	TE	[1983FER/PIA]
	V	(369–566)	59.0	384	A	[1987STE/MAL, 1947STU]
$C_{12}H_9ClN_2$	[4340-77-6]	4-chloroazobenzene				
	FUS		27.2	361.2		[1988BAU/PER]
$C_{12}H_9ClO$	[666747-18-8]	2-chloro-3-phenylphenol				
	V	(391–591)	65.0	406	A	[1987STE/MAL, 1947STU]
$C_{12}H_9ClO$	[85-97-2]	2-chloro-6-phenylphenol				
	V	(393–590)	67.6	408	A	[1987STE/MAL, 1947STU]
$C_{12}H_9ClO_2S$	[80-38-6]	4-chlorophenylbenzenesulfonate				
	FUS		21.44	332.2	DSC	[1990DON/DRE]
$C_{12}H_9Cl_2NO_2S$	[92589-22-5]	*N*-(2,3-dichlorophenyl)benzene sulfonamide				
	FUS		27.2	387.2	DSC	[2007PER/STR, 2014PER/KAZ]
$C_{12}H_9Cl_3N_2O_2S$	[1040012-16-5]	4-amino-*N*-(2,4,5-trichlorophenyl)benzene sulfonamide				
	FUS		39.7	461.2	DSC	[2014PER/KAZ]
$C_{12}H_9F_3N_2O_2$	[75706-12-6]	5-methyl-*N*-[4-(trifluoromethyl)phenyl]-4-isoxazolcarboxamide (leflunomide)				
	FUS		31.3	440.1	DSC	[2016SHA/GAN]
	FUS		30.9	444.4	DSC	[2012BAN/MAH]
	FUS		32.43	438.2	DSC	[2006VEG/PET]
$C_{12}H_9N$	[86-74-8]	Carbazole				
	FUS		27.70	517.1	DSC	[2016STA/KEI]
	FUS		26.9	518.7	DSC	[2000LIS/JAM]
	FUS		27.08	518.3	DTA	[1992SAB/ELW3]
	FUS		21.17	519.5	DSC	[1980KRA/PIG]
	FUS		27.2	521.1	DSC	[1996DOM/HEA, 1980RAD/RAD]
	TRS		0.27	420		
	FUS		26.9	519.3	DSC	[1969ROB/SCO]
	SUB	(348–383)	104.3 ± 0.5	298	GS	[2011VER/EME]
	SUB	(346–364)	101.2 ± 1.1	355	ME	[1990JIM/ROU]
	SUB		103.3 ± 1.1	298	ME	[1990JIM/ROU]
	SUB		97.7 ± 0.3	298	C	[1987SAB/ANT]
	SUB		108.8			[1961ZIM/GEI, 1990JIM/ROU]
	SUB		84.5 ± 0.8			[1970COX/PIL, 1955AIH3]
	V		76.2		GC	[1996GOV/RUT]
	V	(523–642)	63.3	525	Static	[1983SIV/MAR]
	V	(523–642)	61.8	565	Static	[1983SIV/MAR]
	V	(523–642)	60.8	605	Static	[1983SIV/MAR]
	V	(523–642)	87.3 ± 0.1	298	Static	[1983SIV/MAR, 2011VER/EME]
	V	(525–631)	65.7	540	A	[1987STE/MAL, 1923SEN/NEL, 1984BOU/FRI]
	V	(517–624)	66.0	532		[1923MOR/MUR, 1984BOU/FRI]
$C_{12}H_9NO$	[91-02-1]	2-benzoylpyridine				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS	(80–340)	20.91	316.5	AC	[2006WAN/TAN]
$C_{12}H_9NO$	[135-67-1]	10*H*-phenoxazine				
	FUS		21.49	430.7	DSC	[2014FRE/GOM]
	SUB		101.5 ± 0.7	298	C	[2014FRE/GOM]
	SUB	(333–357)	100.9 ± 0.4	345	ME	[2014FRE/GOM]
	SUB	(333–357)	103.2 ± 1.0	298	ME	[2014FRE/GOM]
	SUB	(330–365)	103.9 ± 2.3	348	ME	[2010GOL/SUU]
	SUB		96.1 ± 0.3	298	C	[1992SAB/ELW2]
$C_{12}H_9NO_2$	[92-93-3]	4-nitrobiphenyl				
	SUB	(333–380)	103.8		TGA	[2011FEL/RAM]
$C_{12}H_9NS$	[92-84-2]	Phenothiazine				
	FUS		26.91	358.9	DSC	[2014FRE/GOM]
	FUS		28.4	457.2	DSC	[2007GUP/SIN]
	FUS		25.7	458.4		[1992SAB/ELW2]
	FUS		26.92	458.2	DSC	[1991ACR, 1990DON/DRE]
	SUB	(357–379)	103.3 ± 0.4	298	C	[2014FRE/GOM]
	SUB	(357–379)	108.7 ± 0.7	368	ME	[2014FRE/GOM]
	SUB		112.2 ± 1.6	298	ME	[2014FRE/GOM]
	SUB		114.5 ± 0.4	298	C	[1992SAB/ELW2]
	SUB	(336–395)	86.0	351	A	[1987STE/MAL, 1942NEL/SMI]
$C_{12}H_9N_3O_2$	[2491-52-3]	4-nitroazobenzene				
	SUB	(373–388)	105.2	381	GC	[2002SAW/SHI]
	SUB	(363–393)	110	378	GS	[1987SHI/OHK, 1991HOR, 2002SAW/SHI]
$C_{12}H_9N_3O_2S$	[138564-59-7]	5-methyl-[(2-nitrophenyl)amino]-3-thiophene carbonitrile				
	FUS (yellow prism)		27.2	383		
	FUS (orange needle)		25.1	388		
	FUS (orange prism)		25.5	385.9		
	FUS (red prism)		26.0	379.4	DSC	[2000YU/STE]
$C_{12}H_9N_3O_3$	[1435-60-5]	4-hydroxy-4′-nitroazobenzene				
	SUB		140.1		GS	[1987SHI/OHK, 1991HOR]
	SUB	(417–444)	143.8	430.5	A	[1987STE/MAL]
	SUB		146 ± 2.5		TE,ME	[1970KOJ]
	SUB		136.8			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_9N_3O_4$	[961-68-2]	*N*-(2,4-dinitrophenyl)-*N*-phenylamine				
	FUS		14.37	431.4	DSC	[2010MEK/KHI, 2013TRA/KHI2]
	SUB	(402–420)	147.6	411	A	[1987STE/MAL]
	SUB		149 ± 3.0		TE,ME	[1970KOJ]
	SUB		131.8			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_9N_3O_5$	[119-15-3]	*N*-(2,4-dinitrophenyl)-*N*-(4-hydroxyphenyl)amine				
	SUB	(440–470)	155.6 ± 4.2	455	TE,ME	[1970KOJ, 1987STE/MAL]
	SUB		154			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_9N_3O_4$	[961-68-2]	*N*-(4-aminophenyl)-*N*-(2,4-dinitrophenyl)amine				
	SUB	(437–460)	156.6	448.5	A	[1987STE/MAL]
	SUB		154 ± 2.9		TE,ME	[1970KOJ]
	SUB		139.3			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_{10}$	[83-32-9]	Acenaphthene				
	FUS		21.02	367.2		[2012SHA/LAL]
	FUS		21.5	366.4	DSC	[2010WEI/WAN]
	FUS		21.0	367	DSC	[2008SHA/GUP]
	FUS		20.5		DSC	[2003SHA/KAN]
	FUS	(300–470)	21.54	366.6	DSC	[1981MRA/ORO]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS	(11–436)	21.46	366.6		[1996DOM/HEA, 1977FIN/MES]
	FUS		21.8	363.1	DSC	[1973CAS/VEC]
	FUS		21.9		DSC	[1972WAU/GET]
	FUS		20.4	366.5		[1969SAD/STE]
	FUS		20.7	366.5		[1935SKA]
	SUB	(299–320)	78.7 ± 2.2	310	ME	[2008GOL/SUU3]
	SUB		84.6	298	CGC–DSC	[1998CHI/HES]
	SUB	(313–453)	83.2	383	GS	[1995NAS/LEN]
	SUB	(293–342)	77.0	318	GS	[1986SAT/INO]
	SUB	(283–323)	86.8 ± 0.9	303	GS	[1983SON/ZOL]
	SUB		83.4 ± 1.0	298		[1975OSB/DOU, 1977FIN/MES]
	SUB		82.4	366	B	[1975OSB/DOU]
	SUB		84.7 ± 2.7		ME	[1974RAD/KAT]
	SUB	(290–340)	86.2 ± 0.8		ME	[1965BOY/CHR, 1970COX/PIL]
	SUB	(291–310)	82.1 ± 0.4	300	V	[1959AIH, 1987STE/MAL]
	SUB	(258–308)	81.6			[1958HOY/PEP]
	V		68.0	298	CGC	[2008ZHA/UNH]
	V	(363–423)	70.5 ± 1.1	298	GC	[2006HAF/PAR]
	V		61.1	366		[1998RUU/MOK, 2008HAN/NUT]
	V		66.2	298		[1998RUU/MOK, 2008HAN/NUT]
	V	(323–473)	63.9	398	GC	[2002LEI/CHA]
	V		66.2	298	CGC	[1998CHI/HES]
	V		60.6	378		[1995MOK/GUE, 2008HAN/NUT]
	V		66.5 ± 1.3	298		[1995MOK/GUE, 2008HAN/NUT]
	V	(368–552)	54	403	A	[1987STE/MAL]
	V	(368–413)	60.3	383	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
	V		61.3	395	I	[1943CRA]
	V	(413–561)	54.3	466	I	[1923MOR/MUR]
	V	(420–561)	55.4	435		[1923MOR/MUR, 1984BOU/FRI]
$C_{12}H_{10}$	[92-52-4]	Biphenyl				
	FUS		19.03	342.7	DSC	[2016BOU/HAF]
	FUS		18.78	341.4	DSC	[2016BOU/DJE]
	FUS		18.34	341.5	DSC	[2014BAE/DAH]
	FUS		18.54	342.1	DSC	[2014CAB/GRA]
	FUS		18.89	342.1	AC	[2014LEY/LOS]
	FUS		18.6	343.4		[2012SHA/LAL]
	FUS		18.51	342.1	DSC	[2012CHA/LAY]
	FUS		19.7	342.3	DSC	[2006KHI/DAH]
	FUS		19.27	344.34	DSC	[2004BEN/KHI]
	FUS	(5–440)	18.58	342.1	AC	[1989CHI/KNI]
	FUS	(220–480)	18.58	342.2	DSC	[1983ORO/MRA]
	FUS		19.9	343.3	DSC	[1982WAS/RAD]
	FUS		18.80	344.1	DSC	[1979SMI2]
	FUS		18.90		DSC	[1972WAU/GET]
	FUS		18.58	343.0		[1950UEB/ORT]
	FUS		18.59	342.0		[1941SCH]
	FUS		18.66	341.5	Rad. Calor.	[1996DOM/HEA, 1932SPA/THO]
	FUS		18.95	314.3		[1889EYK]
	SUB		82.9	298	CGC–DSC	[1998CHI/HES]
	SUB	(313–453)	81.8	383	GS	[1995NAS/LEN]
	SUB	(283–338)	83.4	311	EM	[1989SAS/NGU]
	SUB	(303–333)	U 113.3	318		[1989ROR/RUT]
	SUB		81.5 ± 0.2	298		[1989CHI/KNI]
	SUB		77.9 ± 0.3	298	C	[1979SAB2]
	SUB		81.8 ± 0.2	298	C	[1978MON/ROS]
	SUB	(306–332)	80.4 ± 1.6	319	TSGC	[1975CLA/KNO]
	SUB	(273–313)	76.0 ± 4.0		HSA	[1975CHI]
	SUB		83.6 ± 2.5			[1974RAD/KAT]
	SUB	(298–318)	75.2		ME	[1974PRI/POU]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		81.8 ± 0.4	298	C	[1972MOR]
	SUB	(279–299)	75.8 ± 0.6	289		[1955AIH3]
	SUB		81.6 ± 2.0			[1953BRA/CLE2, 1970COX/PIL, 1960JON]
	SUB	(287–307)	75.1 ± 1.7	297		[1953SEK/SUZ]
	SUB	(288–314)	81.6 ± 1.7	301		[1953BRA/CLE]
	SUB	(278–307)	72.8 ± 3	302	ME	[1951BRI]
	SUB		68.6 ± 0.8	292	QF	[1938WOL/WEG]
	V		65.0	298	CGC	[2008ZHA/UNH]
	V	(323–473)	62.5	298	GC	[2002LEI/CHA]
	V		64.5 ± 2.2	298	GS	[2001PUR/CHI]
	V		66.2	298	CGC	[1998CHI/HES]
	V	(495–688)	51.2	510	DSC	[1996BAC/GRZ]
	V	(403–453)	66.0	298	CGC	[1995CHI/HOS]
	V	(348–453)	59.6	363	GS	[1989SAK/IWA]
	V	(350–578)	64.9	298	EB	[1989CHI/KNI]
	V	(350–578)	57.4	400	EB	[1989CHI/KNI]
	V	(350–578)	60.3	360	EB	[1989CHI/KNI]
	V	(350–578)	50.4	500	EB	[1989CHI/KNI]
	V	(333–393)	60.4	363		[1989SAS/NGU]
	V	(390–563)	57.3	405	A	[1987STE/MAL]
	V	(396–437)	54.9	417	GS	[1980NAS/HWA]
	V	(528–766)	48.0	647		[1957GLA/RUL]
	V	(342–544)	59.4	357		[1930CUN, 1984BOU/FRI]
$C_{12}H_{10}BrN_3O_4S$	[34392-67-1]	4-amino-*N*-(2-bromo-4-nitrophenyl)benzenesulfonamide				
	FUS		39.6	461	DSC	[2013PER/RYZ, 2014PER/KAZ]
	SUB		142.8 ± 1.9	298	GS	[2013PER/RYZ]
$C_{12}H_{10}ClNO_2S$	[21226-30-2]	*N*-(2-chlorophenyl)benzene sulfonamide				
	FUS		33.5	398.2	DSC	[2007PER/STR, 2014PER/KAZ]
$C_{12}H_{10}ClNO_2S$	[4750-28-1]	*N*-(4-chlorophenyl)benzene sulfonamide				
	FUS		25.8	394.6	DSC	[2007PER/STR, 2014PER/KAZ]
$C_{12}H_{10}ClN_3S$	[27429-35-2]	*N*-2-pyridyl-*N′*-(2-chlorophenyl) thiourea				
	FUS		28.3	429.7	DSC	[2002KEL/SZC]
$C_{12}H_{10}ClN_3S$	[53385-84-5]	*N*-2-pyridyl-*N′*-(4-chlorophenyl) thiourea				
	FUS		34.3	462.2	DSC	[2002SZC/KEL]
$C_{12}H_{10}Cl_2N_2O_2S$	[943757-10-6]	4-amino-*N*-(2,3-chlorophenyl)benzene sulfonamide				
	FUS		40.9	454.3	DSC	[2008PER/STR, 2014PER/KAZ]
	SUB	(345–391)	137.5 ± 0.7	368	GS	[2008PER/STR]
	SUB	(345–391)	141.1 ± 0.7	298	GS	[2008PER/STR]
	V	114.3		298	S-F	[2008PER/STR]
$C_{12}H_{10}Cl_2N_2O_2S$	[439118-58-8]	4-amino-*N*-(2,5-chlorophenyl)benzene sulfonamide				
	FUS		41.3	445.9	DSC	[2008PER/STR, 2014PER/KAZ]
	SUB	(379–417)	151.3 ± 1.6	398	GS	[2008PER/STR]
	SUB	(379–417)	155.4 ± 1.6	298	GS	[2008PER/STR]
	V		127.8	298	S-F	[2008PER/STR]
$C_{12}H_{10}Cl_2N_2O_2S$	[34392-63-7]	4-amino-*N*-(3,4-chlorophenyl)benzene sulfonamide				
	FUS		51.5	497.9	DSC	[2008PER/STR, 2014PER/KAZ]
	SUB	(418–448)	161.4 ± 3.6	433	GS	[2008PER/STR]
	SUB	(418–448)	167.5 ± 3.6	298	GS	[2008PER/STR]
	V		136.7	298	S-F	[2008PER/STR]
$C_{12}H_{10}Cl_2N_2O_2S$	[1036593-23-3]	4-amino-2-chloro-*N*-(2-chlorophenyl)benzene sulfonamide				
	FUS		51.4	505.0	DSC	[2014PER/KAZ]
$C_{12}H_{10}CI_2N_2O_2S$	[1039834-59-7]	4-amino-2-chloro-*N*-(4-chlorophenyl)benzene sulfonamide				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		34.9	468.7	DSC	[2014PER/KAZ]
$C_{12}H_{10}F_3NO_2$	[52840-38-7]	4-(trifluoromethyl)-7-(*N*-ethylamino)coumarin				
	FUS		30.47	432.5	DSC	[1991ZHA/HUA]
$C_{12}H_{10}F_3NO_2$	[53518-14-2]	4-(trifluoromethyl)-7-(*N,N*-dimethylamino)coumarin				
	FUS		26.25	420.5	DSC	[1991ZHA/HUA]
$C_{12}H_{10}F_3N_3O_4$	[63612-50-0]	5,5-dimethyl-3-[4-nitro-3-(trifluoromethyl)phenyl]imidazolidine-2,4-dione (nilutamide)				
	FUS		31.03	428	DSC	[2010BAI/VAN]
$C_{12}H_{10}N_2$	[1080-16-6]	*cis*-azobenzene				
	SUB	(273–323)	92.9	288	A	[1987STE/MAL]
	SUB	(298–357)	92.9 ± 0.12	328	ME	[1977SCH/PET]
	SUB	(303–333)	U 74.9	318	ME	[1950BRI/CAR, 1960JON]
$C_{12}H_{10}N_2$	[17082-12-1]	*trans*-azobenzene				
	FUS		23.0	341.0		[1996STE/CHI2]
	FUS	(299–408)	22.53	341.1	AC	[1985BOU/DEL]
	FUS	(83–356)	22.53	341.1	AC	[1996DOM/HEA, 1984VAN/BOU]
	FUS		22.65	341.9	DTA	[1977SCH/PET]
	FUS		22.1		CR	[1977SCH/PET]
	FUS		22.4	340.5	DSC	[1974CIN/BER, 1985BOU/DEL]
	FUS		24.7	341.7		[1919PAD, 1985BOU/DEL]
	FUS		20.3			[1908BOG/WIN, 1985BOU/DEL]
	FUS		21.3			[1894BRU, 1985BOU/DEL]
	FUS		22.1			[1889EYK, 1985BOU/DEL]
	SUB		94.1 ± 0.8	298	B	[1996STE/CHI2]
	SUB	(298–302)	93.6 ± 1.9	298	ME	[1992DIA/MIN]
	SUB	(298–341)	92.1 ± 0.9	319	TE,ME	[1984BOU/OON]
	SUB	(299–317)	96.9 ± 0.8	308	TE	[1977DEK/VAN]
	SUB	(299–317)	94.9 ± 0.8	308	ME	[1977DEK/VAN]
	SUB	(298–347)	93.8 ± 1.2	323	ME	[1977SCH/PET]
	SUB	(303–333)	U74.9	318		[1950BRI/CAR, 1960JON, 1987STE/MAL]
	V	(436–626)	72.8 ± 0.7	298	EB	[1996STE/CHI2]
	V	(436–626)	62.4 ± 0.4	440	EB	[1996STE/CHI2]
	V	(436–626)	59.9 ± 0.4	480	EB	[1996STE/CHI2]
	V	(436–626)	57.1 ± 0.4	520	EB	[1996STE/CHI2]
	V	(436–626)	54.2 ± 0.4	560	EB	[1996STE/CHI2]
	V	(436–626)	51.2 ± 0.4	600	EB	[1996STE/CHI2]
	V	(376–566)	62.3	391	A	[1987STE/MAL, 1947STU]
$C_{12}H_{10}N_2$	[486-84-0]	1-methyl-9*H*-pyrido[3,4-*b*]indole (harmane)				
	FUS		27.2	509.9	DSC	[1996BUR/DAG]
$C_{12}H_{10}N_2O$	[20972-43-4]	*trans*-diphenyldiazene *N*-oxide				
	FUS		17.93	309.2		[1991ACR, 1983WEA]
	SUB		98.6 ± 0.9	298	C	[1986KIR/ACR]
$C_{12}H_{10}N_2O$	[1689-82-3]	4-hydroxyazobenzene				
	FUS		32.99	425.2		[1988BAU/PER]
$C_{12}H_{10}N_2O$	[86-30-6]	*N*-nitroso-*N*-phenyl-benzenamine				
	FUS		11.06	340.0	DSC	[2010MEK/KHI]
$C_{12}H_{10}N_2O_2$	[119-75-5]	*N*-(2-nitrophenyl)-*N*-phenylamine				
	FUS		26.14	347.9	DSC	[2010MEK/KHI, 2013TRA/KHI]
	SUB	(335–346)	100.9	340.5	A	[1987STE/MAL]
	SUB		101.9 ± 1.7		TE,ME	[1970KOJ]
	SUB		108.4			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_{10}N_2O_2$	[836-30-6]	*N*-(4-nitrophenyl)-*N*-phenylamine				
	SUB	(382–403)	130.6	392.5	A	[1987STE/MAL]
	SUB		126.2 ± 1.6		TE,ME	[1970KOJ]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		120.9			[1968TSU/KOJ, 1988BAU/PER]
$C_{12}H_{10}N_2O_4S$	[6933-51-3]	*N*-(2-nitrophenyl)benzenesulfonamide				
	FUS		22.3	371.8	DSC	[2013PER/RYZ, 2014PER/KAZ]
	SUB		126.8 ± 0.9	298	GS	[2013PER/RYZ]
$C_{12}H_{10}N_2O_4S$	[1829-81-8]	*N*-(4-nitrophenyl)benzenesulfonamide				
	FUS		28.7	411.3	DSC	[2011PER/RYZ, 2014PER/KAZ]
	SUB	(380–401)	127.9 ± 1.6	390	GS	[2011PER/RYZ]
	SUB	(380–401)	132.5 ± 1.6	298	GS	[2011PER/RYZ]
	V		111.7	298	Sub-Fus	[2011PER/RYZ]
$C_{12}H_{10}N_4$	[69155-29-9]	4,5-dimethy 1-1,1,2,2-tetracyanocyclohex-4-ene				
	SUB		107.9 ± 4.2	378		[1972ROG2, 1977PED/RYL]
$C_{12}H_{10}N_4O_2$	[730-40-5]	4-amino-4′-nitroazobenzene				
	FUS		31.88	488.2		[1988BAU/PER]
	SUB	(403–465)	123	434	GS	[1989NIS/AND]
	SUB		140.1		GS	[1987SHI/OHK, 1991HOR]
	SUB		127.6		UV	[1984KAR/ROD, 1984KAR/KRU]
	SUB		136.4		ME	[1980NIG/DEP, 1991HOR]
	SUB		140.4 ± 1.2		TE,ME	[1970KOJ]
	SUB		134.3		ME	[1968TSU/KOJ, 1988BAU/PER]
	SUB	(404–424)	137.7 ± 0.8	414	TE	[1967GRE/JON, 1987STE/MAL]
	SUB	(404–423)	136.4 ± 5.0	413	ME	[1967GRE/JON, 1966JON/KRA]
$C_{12}H_{10}N_4O_2$	[848892-92-2]	2,6,7,8-tetrahydro-8-(2-methylphenyl)imidazo[2,1-*c*][1,2,4]triazme-3,4-dione				
	FUS		25.64	506.2	DSC	[2016BAR/SZT]
$C_{12}H_{10}N_4O_2$	[848892-95-5]	2,6,7,8-tetrahydro-8-(4-methylphenyl)imidazo[2,1-*c*][1,2,4]triazine-3,4-dione				
	FUS		28.28	600.2	DSC	[2016BAR/SZT]
$C_{12}H_{10}N_4O_3$	[848892-99-9]	2,6,7,8-tetrahydro-8-(2-methoxyphenyl)imidazo[2,1-*c*][1,2,4]triazine-3,4-dione				
	FUS		23.70	509.2	DSC	[2016BAR/SZT]
$C_{12}H_{10}N_4O_3$	[848893-00-5]	2,6,7,8-tetrahydro-8-(4-methoxyphenyl)imidazo[2,1-*c*][1,2,4]triazine-3,4-dione				
	FUS		20.80	567.2	DSD	[2016BAR/SZT]
$C_{12}H_{10}O$	[941-98-0]	1-acetylnaphthalene				
	V	(388–569)	65.4	403	A	[1987STE/MAL]
$C_{12}H_{10}O$	[93-08-3]	2-acetylnaphthalene				
	SUB	(295–316)	87.9 ± 0.4	305	V	[1959AIH, 1987STE/MAL]
	V	(393–574)	74.1	408	A	[1987STE/MAL]
$C_{12}H_{10}O$	[101-84-8]	Diphenyl ether				
	FUS		17.05	300.1	DSC	[2014CAB/GRA]
	FUS		16.51	300.4	DSC	[1992BAB/HWA, 1994BAB/BEN]
	FUS		17.23	301	C	[1964ARN]
	FUS	(18–360)	17.21	300	AC	[1996DOM/HEA, 1953GIN/FUR, 1951FUR/GIN]
	SUB		82 ± 2.1		E	[1958CAS/FLE3, 1970COX/PIL]
	V	(353–393)	67.1	298	CGC	[1995CHI/HOS]
	V	(477–544)	65.0	298		[1976AMB/ELL]
	V	(477–544)	48.2	531		[1976AMB/ELL]
	V	(477–544)	53.0	492	GS,EB	[1987STE/MAL, 1976AMB/ELL]
	V		66.1 ± 0.4	298	C	[1972MOR, 1965COL/COU]
	V	(313–333)	64.2	323	A	[1987STE/MAL, 1948BEN/FRA]
$C_{12}H_{10}O$	[90-43-7]	2-hydroxybiphenyl				
	FUS		15.48	333.7	DSC	[1998VER5]
	FUS	(12–350)	16.21	330.6	AC	[1973GEI/DZH]
	SUB	(301–328)	87.6 ± 0.9	314	GS	[1998VER5]
	SUB	(301–328)	88.5 ± 0.9	298	GS	[1998VER5]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(292–314)	82.9	303	A	[1987STE/MAL, 1960AIH]
	V	(355–373)	72.6 ± 1.1	298	GS	[1998VER5]
	V	(434–547)	94.2	449	A	[1987STE/MAL]
$C_{12}H_{10}O$	[92-69-3]	4-hydroxybiphenyl				
	FUS		31.5	439	DSC	[2010BAI/VAN]
	FUS		31.59	443.1	DSC	[1998VER5]
	SUB	(333–368)	106.6 ± 1.0	351	GS	[1998VER5]
	SUB	(333–368)	109.8 ± 1.0	298	GS	[1998VER5]
	SUB	(327–348)	97.0	337.5	A	[1987STE/MAL, 1960AIH]
	V	(450–581)	72.3	465	A	[1987STE/MAL]
$C_{12}H_{10}O_2$	[1806-29-7]	2,2′-dihydroxybiphenyl				
	FUS		25.36	386.7	DSC	[1998VER5]
	SUB	(334–363)	111.4 ± 1.2	349	GS	[1998VER5]
	SUB	(334–363)	114.4 ± 1.2	298	GS	[1998VER5]
	V	(444–598)	61.7	459	A	[1987STE/MAL]
$C_{12}H_{10}O_2$	[92-88-6]	4,4′-dihydroxybiphenyl				
	FUS		43.05	560.7	DSC	[1998VER5]
	SUB	(354–388)	138.6 ± 2.0	371	GS	[1998VER5]
	SUB	(354–388)	143.0 ± 2.0	298	GS	[1998VER5]
$C_{12}H_{10}O_2$	[713-68-8]	3-phenoxyphenol				
	V		90.4 ± 2.3	298	C	[2011RIB/FER2]
	V	(416–494)	69.5	431	A	[1987STE/MAL]
$C_{12}H_{10}O_2$	[831-82-3]	4-phenoxyphenol				
	SUB	(325–343)	117.3 ± 0.7	334	ME	[2011RIB/FER2]
	SUB	(325–343)	112.8 ± 0.4	298	ME	[2011RIB/FER2]
$C_{12}H_{10}O_2$	[830-81-9]	α-naphthyl acetate				
	FUS		20.21	319.2		[1981BYS]
	SUB	(286–317)	95.1 ± 0.6	298	GS	[2003VER/ROU]
$C_{12}H_{10}O_2$	[1523-11-1]	β-naphthyl acetate				
	FUS		22.86	342.0	DSC	[2008MOG/SEP]
	FUS		20.05	342.2		[1981BYS]
	SUB	(313–341)	96.3 ± 0.6	298	GS	[2003VER/ROU]
$C_{12}H_{10}O_2$	[86-87-3]	1-naphthaleneacetic acid				
	TRS		1.77	368.9		
	FUS		41.73	401.22	DSC	[2008MOG/SEP]
	FUS		22.26	405.3	DSC	[1991ACR, 1990DON/DRE]
	SUB	(343–372)	112.3 ± 0.9	298	GS	[2004ROU/TEM]
$C_{12}H_{10}O_2$	[581-96-4]	2-naphthaleneacetic acid				
	SUB	(343–372)	124.6 ± 1.0	298	GS	[2004ROU/TEM]
$C_{12}H_{10}O_2$	[2459-25-8]	2-carbomethoxynaphthalene				
	FUS		27.1	350.2	DSC	[1978DOZ/FUJ]
$C_{12}H_{10}O_2$	[5392-12-1]	2-methoxy-1-naphthaldehyde				
	SUB	(332–348)	107.4 ± 1.1	298	ME	[2015AMA/FRE]
$C_{12}H_{10}O_2S$	[127-63-9]	Diphenyl sulfone				
	FUS		21.78	398.2	DSC	[UR/MAC, 2000DEF/VAN]
	SUB		106.3 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_{12}H_{10}O_2S$	[2664-63-3]	4,4′-thiodiphenol				
	FUS		31.04	432.9	DSC	[2001LI/HE]
$C_{12}H_{10}O_4$	[106-34-3]	Quinhydrone				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(317–334)	89.1	325.5	A	[1987STE/MAL]
$C_{12}H_{10}O_4S$	[80-09-1]	4,4′-sulfonyldiphenol				
	FUS		41.4	519.9	DSC	[2014COS/DAV]
	SUB	(465–490)	162.0 ± 2.1	298	ME	[2014COS/DAV]
$C_{12}H_{10}O_4S_2$	[10409-06-0]	Diphenyl disulfone				
	SUB		161.9 ± 3.3		E	[1964MAC/OHA]
	V		149.0 ± 2.9	298	E	[1964MAC/OHA]
$C_{12}H_{10}S$	[139-66-2]	Diphenyl sulfide				
	FUS	(5–440)	13.98	258	AC	[1995STE/CHI]
	SUB		95. ± 3.0		E	[1962MAC/MAY3, 1970COX/PIL]
	V	(369–566)	60.5	384		[1999DYK/SVO]
	V	(345–611)	67.3 ± 0.3	360	EB,IPM	[1995STE/CHI]
	V	(345–611)	64.3 ± 0.3	400	EB,IPM	[1995STE/CHI]
	V	(345–611)	61.3 ± 0.3	440	EB,IPM	[1995STE/CHI]
	V	(345–611)	58.3 ± 0.3	480	EB,IPM	[1995STE/CHI]
	V	(345–611)	55.3 ± 0.3	520	EB,IPM	[1995STE/CHI]
	V	(345–611)	52.0 ± 0.3	560	EB,IPM	[1995STE/CHI]
	V	(369–566)	58.2	384	A	[1987STE/MAL, 1949KRE/WIE]
$C_{12}H_{10}S_2$	[882-33-7]	Diphenyl disulfide				
	V	(405–583)	72.4	420		[1999DYK/SVO]
	V		78.7 ± 2.9	298		[1962MAC/MAY3]
	V	(404–583)	74.4	419	A	[1987STE/MAL, 1947STU]
$C_{12}H_{11}ClN_2O_2S$	[16803-92-2]	4-amino-*N*-(4-chlorophenyl)benzene sulfonamide				
	FUS		37.3	467.9	DSC	[2008PER/STR, 2014PER/KAZ]
	SUB	(400–432)	129.2 ± 1.2	416	GS	[2008PER/STR]
	SUB	(400–432)	134.1 ± 1.2	298	GS	[2008PER/STR]
	V		110.3	298	S–F	[2008PER/STR]
$C_{12}H_{11}ClN_2O_5S$	[54-31-9]	4-chloro-2-[(furan-2-ylmethyl)amino]-5-sulfamoylbenzoic acid (furosemide)				
	FUS		21.07	508.2	DSC	[2015GAU/VAN]
$C_{12}H_{11}Cl_2NO$	[175205-50-2]	1-(3,5-dichlorophenyl)-2,5-dimethylpyrrole				
	SUB	(302–324)	96.7 ± 0.4	313	ME	[2013SAN/RIB3]
	SUB	(302–324)	97.5 ± 0.4	298	ME	[2013SAN/RIB3]
$C_{12}H_{11}Cl_2NO$	[23950-58-5]	3,5-dichloro-*N*-(1,1-dimethyl-2-propynyl)benzamide				
	FUS		28.68	428.4	DSC	[1990DON/DRE]
$C_{12}H_{11}FN_2O_3$	[102916-95-0]	(2*R*,4*S*)-6-fluoro-2-methyl-spiro[chroman-4,4′-imidazolidine]-2′,5′-dione				
	FUS (I)		26.3	517.5		
	FUS (II)		31.3	501.0	DSC	[1988ASH/UCH]
$C_{12}H_{11}IN_2O_2S$	[6965-75-9]	4-amino-*N*-(4-iodophenyl)benzene sulfonamide				
	FUS		36.4	468.7	DSC	[2014PER/KAZ]
$C_{12}H_{11}N$	[90-41-5]	2-aminobiphenyl				
	FUS		13.99	322.3		[1996DOM/HEA, 1991STE/CHI]
	V	(340–623)	68.6	400	EB,IPM	[1991STE/CHI]
	V	(340–623)	65.1	440	EB,IPM	[1991STE/CHI]
	V	(340–623)	61.8	480	EB,IPM	[1991STE/CHI]
	V	(340–623)	58.5	520	EB,IPM	[1991STE/CHI]
	V	(340–623)	55.2	560	EB,IPM	[1991STE/CHI]
	V	(340–623)	51.7	600	EB,IPM	[1991STE/CHI]
$C_{12}H_{11}N$	[122-39-4]	Diphenylamine				
	FUS		18.51	326.7		[2012SHA/LAL]
	FUS		19.68	326.7	DSC	[2010MEK/KHI, 2013TRA/KHI, 2013TRA/KHI2]
	FUS		19.9	326.1	DSC	[2009SUR/TER, 2010SUR/PER]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		18.2	326.5	DSC	[2004SHA/TAN]
	FUS		17.72		DSC	[1992SHA/SHA]
	FUS		17.86	326.2	DSC	[1991ACR, 1983WEA, 1990DON/DRE]
	FUS		18.8	326.2	C	[1963RAS/NIG]
	SUB	(293–326)	95.2 ± 0.6	298	GS	[2011SUR/PER]
	SUB	(303–319)	110.0 ± 1.0	311	GS	[2009SUR/TER]
	SUB	(303–319)	110	298	GS	[2009SUR/TER, 2009SUR/PER]
	SUB		96.7 ± 2.5		TE,ME	[1970KOJ]
	SUB	(303–323)	99.2	313		[1968TSU/KOJ, 1988BAU/PER, 2011SUR/PER]
	SUB	(303–323)	99.7 ± 3.8	298		[1968TSU/KOJ, 2011SUR/PER]
	SUB	(298–323)	96.7 ± 2.5	310	QF	[1953AIH, 1970COX/PIL]
	V	(328–372)	79.9 ± 0.4	298	GS	[2011SUR/PER]
	V	(381–575)	64.1	396	A	[1987STE/MAL, 1947STU]
	V	(573–673)	54.2	588	A	[1987STE/MAL]
	V	(575–772)	56.1	674		[1957GLA/RUL, 2011SUR/PER]
$C_{12}H_{11}N$	[101-82-6]	2-benzylpyridine				
	V		69.9 ± 2.8	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
$C_{12}H_{11}NO$	[575-36-0]	*N*-acetyl-l-naphthylamine				
	SUB	(337–360)	94.1	348.5	A	[1987STE/MAL, 1960AIH2]
$C_{12}H_{11}NO$	[86-86-2]	l-naphthaleneacetamide				
	FUS		32.82	455.5	DSC	[1990DON/DRE]
$C_{12}H_{11}NO_2$	[63-25-2]	1-naphthyl methylcarbamate				
	FUS		24.51	416.3	DSC	[1990DON/DRE]
$C_{12}H_{11}NO_2S$	[1678-25-7]	*N*-phenylbenzene sulfonamide				
	FUS		23.5	383.5	DSC	[2014PER/KAZ]
$C_{12}H_{11}N_3$	[60-09-3]	4-aminoazobenzene				
	FUS		18.1	397.2	DSC	[2002SAW/SHI]
	FUS		21.7	398.2		[1988BAU/PER]
	SUB	(373–393)	93.8	383	GC	[2002SAW/SHI]
	SUB		106.3		GS	[1987SHI/OHK, 1991HOR]
	SUB		109.4			[1984KAR/KRU]
	SUB	(356–373)	110.9 ± 1.7	364	ME	[1987STE/MAL]
$C_{12}H_{11}N_3$	[2719-73-5]	Benzaldehyde pyridin-2-ylhydrazone				
	FUS		29	424.6	DSC	[2013PER/KAZ]
$C_{12}H_{11}N_3$	[7727-07-3]	Pyridine-2-aldehyde phenylhydrazone				
	FUS		34	448.0	DSC	[2013PER/KAZ]
$C_{12}H_{11}N_3O_2S$	[1900019-63-7]	5-nitro-2-thiophenecarboxaldehyde-4-methylphenylhydrazone				
	FUS (red greenish plates)		5.23	425		
	FUS (orange red prisms)		15.15	429.2		
	FUS (black needles)		25.3	430.2	DSC	[1997PAN/BOS]
$C_{12}H_{11}N_3O_4S$	[6829-82-9]	4-amino-*N*-(4-nitrophenyl)benzenesulfonamide				
	FUS		27.9	438.9	DSC	[2011PER/RYZ, 2014PER/KAZ]
	SUB	(406–438)	125.1 ± 2.6	422	GS	[2011PER/RYZ]
	SUB	(406–438)	131.4 ± 2.6	298	GS	[2011PER/RYZ]
	V		112.5	298	Sub-Fus	[2011PER/RYZ]
$C_{12}H_{11}N_3O_4S$	[349401-65-6]	*N*-(5-methyl-2-pyridinyl)-4-nitrobenzene sulfonamide				
	FUS		45.7	434.1	DSC	[2014PER/KAZ]
$C_{12}H_{11}N_3S$	[886-60-2]	*N*-2-pyridyl-*N*′-phenylthiourea				
	FUS		41.0			[2002VAL/HER]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{11}N_7$	[396-01-0]	6-phenyl-2,4,7-pteridinetriamine (triamterene)				
	FUS		73.4	602.2	DSC	[2011DOM/POB]
$C_{12}H_{11}O_2P$	[1707-03-5]	*P*,*P*-diphenylphosphinic acid				
	FUS		21.91	466.1	DSC	[2008ZHA/WAN]
$C_{12}H_{12}$	[571-58-4]	1,4-dimethylnaphthalene				
	FUS		10.6	279.2	DSC	[2007CHE/KIM]
	FUS		10.6	279.9		[1991ACR, 1980SMI]
$C_{12}H_{12}$	[571-61-9]	1,5-dimethylnaphthalene				
	FUS		20.0	355.2	DSC	[2007CHE/KIM]
	V	(323–473)	64.1	398	GC	[2002LEI/CHA]
$C_{12}H_{12}$	[575-43-9]	1,6-dimethylnaphthalene				
	FUS		8.5	257	DSC	[2007CHE/KIM]
	V	(323–473)	63.6	398	GC	[2002LEI/CHA]
$C_{12}H_{12}$	[569-41-5]	1,8-dimethylnaphthalene				
	FUS		18.53	338.2	DSC	[2007CHE/KIM]
	FUS	(11–432)	15.77	336.3		[1991ACR, 1977FIN/MES]
	SUB	(328–336)	77.9	332	A	[1987STE/MAL]
	SUB		79.6	336	B	[1975OSB/DOU, 1979COL/JIM2]
	SUB		82.7 ± 0.3	298	C	[1974MAN3, 1977PED/RYL]
	V	(338–413)	62.8	353	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
	V	(338–413)	64.8	336	IP	[1977FIN/MES]
	V	(338–413)	62.2	360	IP	[1977FIN/MES]
	V	(338–413)	60.7	380	IP	[1977FIN/MES]
	V	(338–413)	59.7	400	IP	[1977FIN/MES]
$C_{12}H_{12}$	[581-40-8]	2,3-dimethylnaphthalene				
	FUS		23.97	377.2	DSC	[2007CHE/KIM]
	FUS		15.9	378		[1991ACR, 1980SMI]
	FUS		18.87	377.6	DSC	[1971MAS/CHE]
	SUB	(333–373)	82.8	348	A	[1987STE/MAL]
	SUB	(287–300)	82.2 ± 0.4	294	ME	[1979COL/JIM2]
	SUB		81.0		B	[1978ARO/STE]
	SUB	(278–301)	79.9 ± 0.4	290	V	[1959AIH, 1987STE/MAL]
	V		60.9 ± 0.7	380		[1988MES/FIN]
	V	(378–408)	60.0	393	A	[1987STE/MAL]
$C_{12}H_{12}$	[581-42-0]	2,6-dimethylnaphthalene				
	FUS		25.3	385.2	DSC	[2007CHE/KIM]
	FUS	(12–438)	25.06	383.3		[1991ACR, 1977FIN/MES]
	SUB	(350–383)	84.4 ± 1.9	366		[1977FIN/MES, 1975OSB/DOU, 1987STE/MAL]
	SUB		82.5	383	B	[1975OSB/DOU]
	SUB	(279–304)	84.1	291	V	[1959AIH, 1987STE/MAL]
	V	(384–418)	57.4	383	IP	[1977FIN/MES]
	V	(384–418)	56.6	400	IP	[1977FIN/MES]
	V	(384–418)	55.7	420	IP	[1977FIN/MES]
	V	(384–418)	57.3	399	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
$C_{12}H_{12}$	[582-16-1]	2,7-dimethylnaphthalene				
	FUS		22.2	370.2	DSC	[2007CHE/KIM]
	FUS	(11–391)	23.35	368.8		[1991ACR, 1977FIN/MES]
	SUB	(340–369)	83.8 ± 1.0	345		[1977FIN/MES, 1975OSB/DOU]
	SUB		83.2	369	B	[1975OSB/DOU]
	SUB	(333–368)	84.6	348		[1987STE/MAL]
	V		57.3	400		[1993CHI/KNI]
	V		54.8	440		[1993CHI/KNI]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		52.2	480		[1993CHI/KNI]
	V		49.5	520		[1993CHI/KNI]
	V		46.6	560		[1993CHI/KNI]
	V	(369–398)	59.5	368.8	IP	[1977FIN/MES]
	V	(369–398)	58.6	380	IP	[1977FIN/MES]
	V	(369–398)	58.1	390	IP	[1977FIN/MES]
	V	(369–400)	58.5	384	A	[1987STE/MAL, 1975OSB/DOU, 1984BOU/FRI]
$C_{12}H_{12}$	[1127-76-0]	1-ethylnaphthalene				
	V	(393–565)	57.3	408	A	[1987STE/MAL]
	V	(279–312)	58.3	295	GS	[1979MAC/PRA]
$C_{12}H_{12}$	[939-27-5]	2-ethylnaphthalene				
	V	(323–473)	64.7	398	GC	[2002LEI/CHA]
	V	(269–398)	69.3	284		[1988SAS/JOS]
	V	(286–319)	61.9	301	A,GS	[1987STE/MAL, 1979MAC/PRA]
	V	(393–565)	56.7	408	A	[1987STE/MAL]
$C_{12}H_{12}ClN_5$	[33974-13-9]	2-amino-4-(*p*-chloranilino)-6-isopropenyl-(*s*)-triazine				
	FUS (I)		23.85	415.2		
	FUS (II)		20.5	403.2	DSC	[1986KUN/YUK]
$C_{12}H_{12}ClN_5$	[1449745-81-6]	2-propanoy lpyridine 6′-chloro-4′-pyrimidinylhydrazone				
	FUS		35	394.9	DSC	[2013PER/KAZ]
$C_{12}H_{12}N_2$	[530-50-7]	1,1-diphenylhydrazine				
	V	(399–596)	68.8	68.8	A	[1987STE/MAL, 1947STU]
$C_{12}H_{12}N_2$	[122-66-7]	Hydrazobenzene (1,2-diphenylhydrazine)				
	FUS		17.65	407.2		[1991ACR, 1983WEA]
$C_{12}H_{12}N_2$	[1134-35-6]	4,4′-dimethyl-2,2′-bipyridyl				
	SUB		99.7 ± 2.3	298	C	[1997RIB/MAT4]
$C_{12}H_{12}N_2$	[92-87-5]	4,4′-diaminobiphenyl (benzidine)				
	FUS		19.1	400.2	DSC	[1992RAI/GEO, 1999RAI/SHE]
$C_{12}H_{12}N_2O$	[101-80-4]	4,4′-diaminodiphenyl oxide				
	FUS		37.86	462.7	DSC	[2013LIU/YIN]
	FUS		7.74	465.4	DRC	[1996DOM/HEA, 1978MAR/CIO2]
	SUB		62.8	465.4	V+F	[1975BAG/AND]
$C_{12}H_{12}N_2O_2$	[6953-81-7]	1-(4-dimethylaminophenyl)-1*H*-pyrrole-2,5-dione				
	SUB	(350–370)	122.6 ± 0.9		C	[1998KIS/KAS]
$C_{12}H_{12}N_2O_2$	[5044-22-4]	2,5-dimethyl-1-(4-nitrophenyl)pyrrole				
	SUB	(331–353)	103.6 ± 0.6	342	ME	[2010RIB/SAN5]
	SUB	(331–353)	105.8 ± 0.6	298	ME	[2010RIB/SAN5]
$C_{12}H_{12}N_2O_2S$	[127-77-5]	4-amino-*N*-phenylbenzenesulfonamide				
	FUS		36.60	468.3	DSC	[2014LAH/KUD]
$C_{12}H_{12}N_2O_3$	[389-08-2]	1-ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid (nalidixic acid)				
	FUS		35.92	501.9	DSC	[2004ROM/BUS2]
	FUS		35.92	501.9	DSC	[1998BUS/ROM]
$C_{12}H_{12}N_2O_3$	[94098-94-9]	3-(methoxycarbonyl)-2-methylquinoxaline-1-oxide				
	SUB		129.2 ± 4.1	298	C	[2009GOM/MON]
$C_{12}H_{12}N_2O_3$	[50-06-6]	5-ethyl-5-phenylpyridine-2,4,6(1*H*,3*H*,5*H*)trione (phenobarbital)				
	FUS (I)		28.0	449	DSC	[2010ZEN/GEL]
	FUS (II)		27.9	447	DSC	[2010ZEN/GEL]
	FUS		27.8		DSC	[1982TRE/VAU]
$C_{12}H_{12}N_2O_4$	[13297-18-2]	3-methyl-2-quinoxalinecarboxylic acid-1,4-dioxide, ethyl ester				
	SUB		133.4 ± 2.1	298	C	[2004RIB/GOM2]
$C_{12}H_{12}O_3$	[87-05-8]	7-ethoxy-4-methylcoumarin				
	FUS		25.81	387.5	DSC	[2011AMA/PIN]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{12}O_4$	[29412-62-2]	1,4-dimethylcubane dicarboxylate				
	FUS		38.1	438.2	DSC	[2005ROU/DAV]
	FUS		41.0	437.8		[1996DOM/HEA, 1989KIR/CHU]
	SUB		117.2 ± 3.9	298	V+F	[2005ROU/DAV]
	V		88.5 ± 2.2	298	CGC	[2005ROU/DAV]
$C_{12}H_{12}O_4$	[30296-80-1]	Dimethyl 2,6-cuneanedicarboxylate				
	FUS		23.4	392.7	DSC	[2005ROU/DAV]
	SUB		106.8 ± 3.0	298	V+F	[2005ROU/DAV]
	V		89.7 ± 2.1	298	CGC	[2005ROU/DAV]
$C_{12}H_{12}O_6$	[2672-57-3]	1,2,3-benzenetricarboxylic acid, trimethyl ester				
	FUS		32.7	375.7	DSC	[1993ACR, 1978DOZ/FUJ]
	V	(453–513)	72.5	468	A,GS	[1987STE/MAL, 1962KRA/BER]
$C_{12}H_{12}O_6$	[28904-30-5]	1,2,4-benzenetricarboxylic acid, trimethyl ester				
	V		78.5 ± 0.4	399	C	[1998MAK/KAB]
	V	(443–493)	61.1	458	A,GS	[1987STE/MAL, 1962KRA/BER]
$C_{12}H_{12}O_6$	[2672-58-4]	1,3,5-benzenetricarboxylic acid, trimethyl ester				
	TRS		4.6	408.2	DSC	
	FUS		17.6	419.4	DSC	[1978DOZ/FUJ]
	Fusion enthalpy may not be reliable—authors reported a mass loss as the sample melted					
	SUB	(350–368)	115.9 ± 0.4	359	ME	[1995JIM/MEN]
	SUB		118.9 ± 0.4	298		[1995JIM/MEN]
	SUB		117.5 ± 0.8	298		[1967TUR2, 1995JIM/MEN]
	V	(443–513)	75.4	458	A	[1987STE/MAL]
$C_{12}H_{12}S$	[16587-33-0]	1,2,3,4-tetrahydrodibenzothiophene				
	FUS		32.03	275		[2004STE/CHI2]
	V	(360–600)	70.3 ± 0.3	360	IPM,EB	[2004STE/CHI2]
	V	(360–600)	67.3 ± 0.3	400	IPM,EB	[2004STE/CHI2]
	V	(360–600)	64.5 ± 0.2	440	IPM,EB	[2004STE/CHI2]
	V	(360–600)	61.8 ± 0.2	480	IPM,EB	[2004STE/CHI2]
	V	(360–600)	59.2 ± 0.3	520	IPM,EB	[2004STE/CHI2]
	V	(360–600)	56.5 ± 0.4	560	IPM,EB	[2004STE/CHI2]
	V	(360–600)	75.3 ± 0.7	298	IPM,EB	[2004STE/CHI2]
$C_{12}H_{13}ClF_3N_3O_4$	[33245-39-5]	*N*-(2-chloroethyl)-2,6-dinitro-*N*-propyl-4-(trifluoromethyl)benzeneamine				
	FUS		23.08	318.4	DSC	[1990DON/DRE]
$C_{12}H_{13}Cl_3O_3$	[93-79-8]	2,4,5-trichlorophenoxyacetic acid, butyl ester				
	V	(460–573)	87.3	475	A	[1987STE/MAL]
$C_{12}H_{13}F_{13}$	[69125-80-0]	1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluorododecane				
	V	(288–328)	54.9 ± 0.3	298	Static	[2015MOR/DAS]
$C_{12}H_{13}N$	[86-56-6]	*N,N*-dimethyl-1-aminonaphthalene				
	V	(283–334)	66.9 ± 0.2	298	GS	[2007VER/GEO]
$C_{12}H_{13}N$	[83-24-9]	2,5-dimethyl-1-phenylpyrrole				
	SUB	(275–293)	84.2 ± 0.5	284	ME	[2010RIB/SAN5]
	SUB	(275–293)	83.5 ± 0.5	298	ME	[2010RIB/SAN5]
$C_{12}H_{13}N$	[942-01-8]	1,2,3,4-tetrahydrocarbazole				
	FUS		17.85	391.3	DSC	[2016STA/KEI]
	SUB	(336–366)	97.2 ± 0.9	298	GS	[2015STA/EME]
$C_{12}H_{13}NO_2$	[87-01-4]	4-methyl-7-dimethylaminocoumarin				
	FUS		23.92	416.1	DSC	[1996DOM/HEA, 1989ZHA/HUA]
$C_{12}H_{13}NO_2S$	[5234-68-4]	5,6-dihydro-2-methyl-*N*-phenyl-1,4-oxathin-3-carboxanilide (carboxin)				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS	(79–380)	28.19	365.3	AC	[2004WAN/TAN]
$C_{12}H_{13}NO_4S$	[5259-88-1]	2,3-dihydro-6-methyl-5-phenylcarbamoyl-1,4-oxathiin-4,4-dioxide				
	FUS		26.66	401.5	DSC	[1990DON/DRE]
$C_{12}H_{13}N_3$	[53112-28-0]	4,6-dimethyl-*N*-phenyl-2-pyrimidinamine				
	FUS	(78–391)	21.23	370.8	AC	[2004SUN/SON]
$C_{12}H_{14}ClN_3OS$	[1361124-59-5]	5-[(5-chloro-2-methylphenyl)amino]-α-methyl-1,2,4-thiadiazole-3-ethanol				
	FUS		31.3	374.5	DSC	[2013SUR/BUI]
	SUB	(347–367)	98.9 ± 1.5	357	GS	[2013SUR/BUI]
	SUB	(347–367)	101.9 ± 1.5	298	GS	[2013SUR/BUI]
$C_{12}H_{14}ClN_3OS$	[1361124-42-6]	5-[(3-chloro-4-methylphenyl)amino]-α-methyl-1,2,4-thiadiazole-3-ethanol				
	FUS		29.6	402.3	DSC	[2013SUR/BUI]
	SUB	(370–393)	116.3 ± 2.5	382	GS	[2013SUR/BUI]
	SUB	(370–393)	120.7 ± 2.5	298	GS	[2013SUR/BUI]
$C_{12}H_{14}Cl_2$	[79995-39-4]	Cyclohexyl-3,4-dichlorobenzene				
	V	(383–488)	64.7	398		[1981GUS/KAS]
$C_{12}H_{14}Cl_2FNO_4S$	[73231-34-2]	2,2-dichloro-*N*-[1-(fluoromethyl)-2-hydroxy-2-[4-(methylsulfonyl)phenyl]ethyl]acetamide ((−)-florfenicol)				
	FUS		17.82	427.25	DSC	[2014SUN/HAO]
	FUS		83.36	429.1	DSC	[2008MAR/STA]
$C_{12}H_{14}Cl_2O_3$	[94-80-4]	2,4-dichlorophenoxyacetic acid, butyl ester				
	V	(444–573)	76.3	459	A	[1987STE/MAL, 1999DYK/SVO]
	V	(444–573)	70.6	508	GC	[1966JEN/SCH]
$C_{12}H_{14}Cl_2O_3$	[94-79-1]	2,4-dichlorophenoxyacetic acid, sec-butyl ester				
	V	(444–573)	74.2	459	A	[1987STE/MAL, 1999DYK/SVO]
	V	(444–573)	69.1	508	GC	[1966JEN/SCH]
$C_{12}H_{14}Cl_2O_4$	[74944-83-5]	2,4-dichlorophenoxyacetic acid, 2-ethoxyethyl ester				
	V	(443–503)	63.5	458	A	[1987STE/MAL]
$C_{12}H_{14}Cl_2O_4$	[36227-43-7]	2,4-dichlorophenoxyacetic acid, 4-hydroxybutyl ester				
	V	(443–503)	72.1	458	A	[1987STE/MAL]
$C_{12}H_{14}FlN_2O_5$	[61787-10-8]	5′-deoxy-5′-iodo-2′,3′-*O*-isopropyidene-5-fluorouridine				
	FUS		13.7	453.8	DSC	[2014ZHA/ZHO]
$C_{12}H_{14}N_2O_4S$	[58168-20-0]	Ethyl 5-amino-4-cyano-3-(2-ethoxy-2-oxoethyl)-2-thiophenecarboxylate				
	FUS		40.88	410.1	DSC	[2016HAN/MEN]
$C_{12}H_{14}N_2O_5$	[131-89-5]	2-cyclohexyl-4,6-dinitrophenol				
	FUS		28.03	378.7	DSC	[1969PLA/GLA]
	V	(405–565)	88.6	420	A	[1987STE/MAL, 1947STU]
$C_{12}H_{14}N_4O$	[2676-59-7]	3,3′,4,4′-tetraaminodiphenyl ether				
	FUS		25.3	402.6		[1990DOM/HEA, 1977KAR/RAB]
$C_{12}H_{14}N_4O_2S$	[515-64-0]	2,4-dimethyl-6-sulfamilamidopyrimidine (sulfisomidine)				
	FUS		42.7	523.6	DTA	[1971SUN/EIS]
	FUS		45.11	515.6	DSC	[1982MAR/MIR]
$C_{12}H_{14}N_4O_2S$	[57-68-1]	2-(4-aminobenzenesulfonamido)-4,6-dimethylpyrimidine (sulfamethazine)				
	FUS		37.7	469.2	DSC	[2016DEL/ALM]
	FUS		39.2	469	DSC	[2003MAR/AVI, 2002MAR/GOM, 2001MAR/GOM]
	FUS		44.80	468.6	DSC	[1983KHA]
	FUS		31.1	471.6	DTA	[1971SUN/EIS]
$C_{12}H_{14}N_4O_4S$	[122-11-2]	4-amino-*N*-(2,6-dimethoxy-4-pyrimidinyl)benzenesulfonamide (sulfisomidine)				
	FUS		45.6	476.7	DTA	[1986MAU/RAM]
[Note: The molecular formula given in [1986MAU/RAM] was not consistent with the molecular structure.]						
$C_{12}H_{14}O_2$	[946-38-3]	Ethyl *cis*-2-phenylcyclopropanecarboxylate				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		70.7 ± 0.6	298	C	[1998KOL/PIM]
$C_{12}H_{14}O_2$	[946-39-4]	Ethyl *trans*-2-phenylcyclopropanecarboxylate				
	SUB		96.9 ± 0.4	298	C	[1998KOL/PIM]
$C_{12}H_{14}O_3$	[93-28-7]	1-acetoxy-2-methoxy-4-allylbenzene (eugenol acetate)				
	V	(374–555)	63.1	389	A	[1987STE/MAL, 1947STU]
$C_{12}H_{14}O_3$	[70637-00-2]	4-methyl-1-phenyl-2,6,7-trioxabicyclo[2.2.2]octane				
	FUS		20.9	410.2		[1995RAK/VER2]
$C_{12}H_{14}O_4$	[523-80-8]	4,7-dimethoxy-5-(2-propen-1-yl)-1,3-benzodioxole (apiol)				
	V	(389–558)	70.6	404	A	[1987STE/MAL]
$C_{12}H_{14}O_4$	[84-66-2]	Diethyl phthalate				
	FUS		17.99	269.9		[1996DOM/HEA, 1967CHA/HOR]
	V		88.6 ± 3.4	298	CRT	[2015GOB/CHI]
	V		73.9 ± 10	298	CGC	[2015GOB/CHI]
	V		82.1 ± 1.6	298	CGC	[2014GOB/CHI]
	V		82.1 ± 0.5	298	EB,ME	[2004ROH/RUZ]
	V		87.4	298	EB,ME	[2004ROH/RUZ]
	V	(404–520)	74.6	426	BG	[1988KAT]
	V	(404–520)	70.0	441	BG	[1988KAT]
	V	(404–520)	66.5	459	BG	[1988KAT]
	V	(404–520)	64.2	478	BG	[1988KAT]
	V	(404–520)	63.3	497	BG	[1988KAT]
	V	(345–453)	77.9	360	A	[1987STE/MAL]
	V	(421–570)	59.1	436	A	[1987STE/MAL]
	V	(307–333)	86.8	310	GS	[1982GRA/FOS]
	V		81.1 ± 0.8	298	GCC	[1980FUC/PEA]
	V		82.4			[1948SMA/SMA]
	V	(381–567)	65.9	396		[1947STU]
$C_{12}H_{14}O_4$	[636-09-9]	Diethyl terephthalate				
	FUS		24.60	317.2		[1996DOM/HEA, 1956SMI/DOL]
$C_{12}H_{14}O_4$	[28153-24-4]	1,1-diacetoxy-1-phenylethane				
	FUS		29.37	355.4	DSC	[1996VER/PEN]
	SUB	(308–338)	94.4 ± 2.2	318	GS	[1996VER/PEN]
$C_{12}H_{14}O_5$	[20733-94-2]	Methyl 4-hydroxy-3,5-dimethoxycinnamate (methyl sinapate)				
	FUS		29.85	361.8	DSC	[2010PAN/SAR]
$C_{12}H_{15}ClNO_4PS_2$	[2310-17-0]	*S*-6-chloro-2,3-dihydro-2-oxobenzoxazol-3-ylmethyl *O*,*O*-diethylphosphorodithioate				
	FUS		30.03	320	DSC	[1990DON/DRE]
$C_{12}H_{15}N$	[6247-00-3]	*N*,*N*-diallyl aniline				
	V	(421–513)	54.8	436	A	[1987STE/MAL]
$C_{12}H_{15}NO$	[4783-65-7]	1-benzyl-2-piperidone				
	V		91.3 ± 1.0	298	C	[2006RIB/CAB]
$C_{12}H_{15}NO$	[3612-20-2]	1-benzy l-4-piperidone				
	V		78.0 ± 0.8	298	C	[2006RIB/CAB]
$C_{12}H_{15}NO_2$	[19288-59-6]	Phenylaminoethyl methacrylate				
	FUS		25.47	297.5	AC	[1996DOM/HEA, 1985KAR/ABD]
$C_{12}H_{15}NO_2S$	[21406-29-1]	*N*-benzoylthiocarbamic *O*-butyl ester				
	SUB		120.7 ± 1.8	298	C	[2004RIB/SAN2]
$C_{12}H_{15}NO_3$	[1563-66-2]	2,3-dihydro-2,2-dimethylbenzofuran-7-yl methylcarbamate				
	FUS		30.33	426.2	DSC	[1990DON/DRE]
$C_{12}H_{15}NO_3$	[1665-48-1]	5-[(3,5-dimethylphenoxy)methyl]-1,3-oxazolidin-2-one (metaxalone)				
	FUS (triclinic)		30.3	395.1		
	FUS (monoclinic)		26.4	395.4	DSC	[2011AIT/CHO]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{15}N_2O_3PS$	[13593-03-8]	*O*,*O*-diethyl *O*-quinoxalin-2-yl phosphothioate				
	FUS		25.4	304.1	DSC	[1990DON/DRE]
$C_{12}H_{15}N_3OS$	[1245618-41-0]	l-[(5-*p*-tolylamino)-1,2,4-thiadiazol-3-yl]-2-propanol				
	FUS		22.0	390.1	DSC	[2010PER/VOL]
	SUB	(344–364)	142.0 ± 1.1	298	GS	[2010PER/VOL]
$C_{12}H_{15}N_3OS$	[1275515-23-5]	α-methyl-5-[(3-methylphenyl)amino]-1,2,4-thiadiazole-3-ethanol				
	FUS		26.8	361.5	DSC	[2013SUR/BUI]
	SUB	(341–359)	134.8 ± 1.9	350	GS	[2013SUR/BUI]
	SUB	(341–359)	137.3 ± 1.9	298	GS	[2013SUR/BUI]
$C_{12}H_{15}N_3O_2$	[5972-07-6]	3,6-bis(dimethylamino)phthalimide				
	SUB	(400–457)	105	415	A	[1987STE/MAL]
	SUB		135.3		RG	[1958KLO]
$C_{12}H_{15}N_3O_2S$	[1361124-43-7]	α-methyl-5-[(4-methoxyphenyl)amino]-1,2,4-thiadiazole-3-ethanol				
	FUS		28.8	363.4	DSC	[2013SUR/BUI]
	SUB	(343–356)	126.1 ± 2.1	350	GS	[2013SUR/BUI]
	SUB	(343–356)	129.0 ± 2.1	298	GS	[2013SUR/BUI]
$C_{12}H_{15}N_3O_2S$	[54965-21-8]	Methyl [5-(propylthio)-1*H*-benzoimidazol-2-yl]carbamate (albendazole)				
	FUS		44.71	483.2	DSC	[2015GAU/VAN]
$C_{12}H_{15}N_3O_6$	[81-15-2]	2,4,6-trmitro-1,3-dimethyl-5-*tert*-butylbenzene				
	FUS		20.79	386.7	DSC	[2004QU/BAI]
	SUB	(312–348)	100.4	327	A	[1987STE/MAL, 1956SER/VOI]
$C_{12}H_{15}N_5O_4$		9-[(2-acetoxyethoxy)methyl]-2-acetylamino-9*H*-purme				
	FUS		42.33	407.2	DSC	[1995KRI/VES]
$C_{12}H_{15}N_5O_5$	[75128-73-3]	9-[(2-acetoxyethoxy)methyl]-2-acetylamino-1,9-dihydro-6*H*-purm-6-one				
	FUS		47.37	477.2	DSC	[1995KRI/VES]
$C_{12}H_{16}$	[827-52-1]	Cyclohexylbenzene				
	FUS	(220–470)	15.3	280.5	DSC	[1996DOM/HEA, 1983ORO/MRA]
	V	(344–462)	60.8 ± 0.2	298	MM	[1998MOK/RAU, 2006VER]
	V	(283–462)	60.4	298		[1993KAS/MOK]
	V	(333–343)	56.4	348		[1990SOH/OKA]
	V	(421–513)	51.3	436	A	[1987STE/MAL]
	V		59.9 ± 0.3	298	C	[1978MON/ROS]
$C_{12}H_{16}$		Dicyclohexadiene				
	V	(377–505)	77.9	329	A	[1987STE/MAL]
$C_{12}H_{16}$	[2715-29-9]	2,5-diethylstyrene				
	V	(322–496)	52.2	337	A	[1987STE/MAL, 1947STU]
$C_{12}H_{16}$	[5676-29-9]	α-*tert*-butylstyrene				
	V	(298–318)	53.2 ± 0.1	298	GS	[1999VER/EBE]
$C_{12}H_{16}$	[2388-14-9]	1-isopropenyl-4-isopropylbenzene				
	V	(403–479)	50.9	418	A	[1987STE/MAL]
$C_{12}H_{16}$	[24375-17-5]	Tetraspiro[2.0.2.0.2.0.2.0]dodecane ([4] rotane)				
	FUS		21	394.9	DSC	[1995BEC/RUC]
	SUB	(298–338)	74.9 ± 0.5		GS	[1995BEC/RUC]
$C_{12}H_{16}Cl_2N_2O$	[555-37-3]	*N*-butyl-*N*′-(3,4-dichlorophenyl)-*N*-methylurea				
	FUS		27.23	374.3	DSC	[1990DON/DRE]
$C_{12}H_{16}N_2$	[126401-68-1]	1-pentylbenzimidazole				
	V	(328–375)	77.0 ± 0.5	298	GS	[2012GAR/VER]
$C_{12}H_{16}N_2$	[61-50-7]	2-(1*H*-mdol-3-yl)-*N*,*N*-dimethylethanamine (*N*,*N*-dimethyltryptamine)				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (I)		17.3	331.2		
	FUS (II)		18.5	319.2	DSC	[2013GAU/FOR]
$C_{12}H_{16}N_2OS$	[479578-80-8]	*N*-[(3-methoxyphenyl)methyl]-*N′*-2-propenylthiourea				
	FUS		15.43	313	DSC	[2002ABB/WOH]
$C_{12}H_{16}N_2O_2$	[315-18-4]	4-dimethylamino-3,5-xylyl methylcarbamate				
	FUS		18.37	361.7	DSC	[1990DON/DRE]
$C_{12}H_{16}N_2O_2$	[58328-35-1]	*N*-benzoyl-*N′*,*N′*-diethylurea				
	SUB		132.2 ± 2.8	298	C	[2000RIB/RIB]
$C_{12}H_{16}N_2O_4$	[71850-77-6]	2,4-dinitro-1,3-dimethyl-5-*tert*-butylbenzene				
	FUS		16.68	340.4	DSC	[2004QU/BAI]
$C_{12}H_{16}N_2O_4$	[90429-36-0]	Pentyl *N*-(4-nitrophenyl) carbamate				
	FUS		25.98	363.8	DSC	[1993TIE/FRA]
$C_{12}H_{16}N_2O_5$	[83-66-9]	1-methyl-4-*tert*-butyl-3-methoxy-2,6-dinitrobenzene				
	SUB	(293–353)	102.9			[1953SER/VOI, 1960JON]
$C_{12}H_{16}N_3O_3PS_2$	[2642-71-9]	Azinphos-ethyl				
	SUB	(326–420)	86.8	341		[1987STE/MAL]
$C_{12}H_{16}N_3O_3PS_2$	[2642-71-9]	*S*-(3,4-dihydro-4-oxobenzo[d][1,2,3]-triazin-3-ylmethyl) *O*,*O*-diethylphosphorodithioate				
	FUS		25.22	322.2	DSC	[1990DON/DRE]
$C_{13}H_{19}N_3O_6S$	[4726-14-1]	4-methylsulphonyl-2,6-dinitro-*N*,*N*-dipropylaniline				
	FUS		28.05	424.3	DSC	[1990DON/DRE]
$C_{12}H_{16}O_2$	[2049-96-9]	Pentyl benzoate				
	V	(395–492)	85.9	410	A	[1987STE/MAL]
$C_{12}H_{16}O_2$	[94-46-2]	Isopentyl benzoate				
	V	(345–535)	51.6	360	A	[1987STE/MAL, 1947STU]
$C_{12}H_{16}O_2$	[119-43-7]	Ethyl 2-phenylbutyrate				
	V	(404–489)	56.0	419	A	[1987STE/MAL]
$C_{12}H_{16}O_2$	[103-52-6]	Phenethyl butyrate				
	V		69.7 ± 1.4	298	CGC	[2015KOZ/GOB]
$C_{12}H_{16}O_2$		Benzaldehyde 2,2-dimethylpropylene glycol acetal				
	FUS		18.6	307.6		[1995VER/DOG]
$C_{12}H_{16}O_2$	[26311-45-5]	4-pentylbenzoic acid				
	TRS (liq cryst)		2.6	252		
	TRS (liq cryst)		9.9	362		
	TRS (liq cryst-to-liq)		1.5	395	DSC	[1985PRI/PUC]
	SUB	(341–357)	118.2 ± 1.0	298	ME	[2004MON/ALM]
$C_{12}H_{16}O_2$	[2243-32-5]	Pentamethylbenzoic acid				
	SUB	(347–363)	111.5 ± 1.7	355	ME	[1988COL/JIM]
	SUB	(347–363)	113.4 ± 1.8	298	ME	[1988COL/JIM]
$C_{12}H_{16}O_3$	[2050-08-0]	Pentyl salicylate				
	V	(402–540)	66.5	417	A	[1987STE/MAL]
$C_{12}H_{16}O_3$	[87-20-7]	Isopentyl salicylate				
	V	(287–329)	73.0	302	A,ME	[1987STE/MAL, 1955SER/VOI]
$C_{12}H_{16}O_3$	[15872-41-0]	4-pentoxybenzoic acid				
	TRS (liq cryst)		22.04	397.2		
	TRS (liq cryst-to-liq)		2.16	424.2	DSC	[2010FON/SAN]
	TRS (liq cryst)		21.76	398.2		
	TRS (liq cryst-to-liq)		2.09	422.2	DSC	[1967HER]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(355–377)	132.0 ± 0.4	366	ME	[2010FON/SAN]
	SUB	(355–377)	134.5 ± 0.8	298	ME	[2010FON/SAN]
$C_{12}H_{16}O_3$	[63905-22-6]	(racemic) 3-(2-allylphenoxy)-propane-1,2-diol				
	FUS		27.8	314.9	DSC	[2008BRE/BRE]
$C_{12}H_{16}O_3$	[476169-18-3]	(*S*)-3-(2-allylphenoxy)-propane-1,2-diol				
	FUS		28.8	331.2	DSC	[2008BRE/BRE]
$C_{12}H_{16}O_4$	[14174-08-4]	Benzo-12-crown-4				
	FUS		23.1	321.2	DSC	[2000NIC/ORF]
	SUB		104.3 ± 2.6	298	CGC–DSC	[2000NIC/ORF]
	V		82.7 ± 2.3	298	CGC	[2000NIC/ORF]
$C_{12}H_{16}O_4$	[25762-98-5]	2,5-dipropoxy-1,4-benzoquinone				
	TRS		8.6	357		
	FUS		33.6	460.8	DSC	[1996KEE/VAN]
$C_{12}H_{16}O_6$	[4630-62-0]	α-phenoxy-α-(*D*)-glucopyranoside				
	FUS		39.0	429.2	DSC	[1996SCH]
$C_{12}H_{17}F_9$	[69125-79-7]	1,1,1,2,2,3,3,4,4-nonafluorododecane				
	V	(298–328)	57.6 ± 0.3	298	Static	[2015MOR/DAS]
$C_{12}H_{17}N$	[31252-42-3]	4-benzylpiperidine				
	V		72.4 ± 6.7	298	CGC	[2014THO/GOB]
	V		74.2 ± 1.0	298	C	[2007RIB/CAB]
$C_{12}H_{17}NO$	[91-49-6]	*N*-butylacetanilide				
	V	(443–653)	60.2	458	A	[1987STE/MAL]
$C_{12}H_{17}NO$	[2431-96-1]	*N*,*N*-diethyl-2-phenylacetamide				
	V	(404–460)	82.8	419	A	[1987STE/MAL, 1969DAV/MAK]
	V		77.8		Static	[1968DAV/BAT]
$C_{12}H_{17}NO$	[52486-76-7]	2-(dimethylamino)-2-methyl-l-phenylpropanone				
	V	(298–338)	66.7 ± 0.4	298	GS	[1994WEL/VER]
$C_{12}H_{17}NO$	[4061-29-4]	2-(diethylamino)-1-phenylethanone				
	V	(293–338)	71.6 ± 0.9	298	GS	[1994WEL/VER]
$C_{12}H_{17}NO$	[134-62-3]	*N*,*N*-diethyl-*m*-toluamide				
	V	(373–403)	U32.2	388	A	[1987STE/MAL, 1968DAV/BAT]
$C_{12}H_{17}NO_2$	[91563-76-7]	l-nitro-2,6-diisopropylbenzene				
	FUS		12.51	301.2	DSC	[2000VER/HEI]
	SUB	(279–294)	81.0 ± 1.0	286	GS	[2000VER/HEI]
	SUB	(279–294)	80.6 ± 1.0	298	GS	[2000VER/HEI]
	V	(308–343)	66.9 ± 0.6	326	GS	[2000VER/HEI]
	V	(308–343)	68.4 ± 0.6	298	GS	[2000VER/HEI]
$C_{12}H_{17}NO_2$	[2631-37-0]	5-isopropyl-*m*-tolyl methylcarbamate				
	FUS		23.04	361.3	DSC	[1990DON/DRE]
$C_{12}H_{17}NO_2$	[13110-37-7]	Pentyl 4-aminobenzoate				
	FUS		23.97	325.5	DSC	[1990NEA/FLY]
	FUS		23.93	325.1	DSC	[1991ACR, 1989NEA/FLY]
$C_{12}H_{17}NO_2S_2$	[949171-67-9]	*N*-theonylthiocarbamic-*O*-hexyl ester				
	FUS		22.48	346.4	DSC	[2007RIB/MON]
	SUB		180.1 ± 3.0	298	C	[2007RIB/MON]
$C_{12}H_{17}N_3O_3$	[105910-97-2]	l-pentyl-3-(4-nitrophenyl) urea				
	FUS		19.85	404.2	DSC	[1993TIE/FRA]
$C_{12}H_{17}N_3S$		*N*-(diethylaminothiocarbonyl)benzamidine				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		126.0 ± 1.5	298	C	[2004RIB/SAN]
$C_{12}H_{18}$	[4904-61-4]	1-*cis*-5-*trans*-9-*trans*-cyclododecatriene				
	V	(344–387)	49.9	359	A	[1987STE/MAL]
	V	(400–423)	60.0	411	A	[1987STE/MAL]
	V	(426–503)	47.8	441	A	[1987STE/MAL]
$C_{12}H_{18}$	[706-31-0]	1-*trans*-5-*trans*-9-*cis*-cyclododecatriene				
	V	(286–373)	68.0	301	A	[1987STE/MAL]
$C_{12}H_{18}$	[1077-16-3]	Hexylbenzene				
	V		60.2	298		[1994RUZ/ZAB]
	V	(274–463)	61.6	289		[1993KAS/MOK]
	V		60.0	298		[1971WIL/ZWO]
$C_{12}H_{18}$	[577-55-9]	1,2-diisopropylbenzene				
	V	(388–476)	48.9	403	A	[1987STE/MAL]
$C_{12}H_{18}$	[99-62-7]	1,3-diisopropylbenzene				
	V	(283–318)	56.0 ± 0.8	301	GS	[1998VER7]
	V	(283–318)	56.2 ± 0.8	298	GS	[1998VER7]
	V	(387–477)	48.9	402	A	[1987STE/MAL]
$C_{12}H_{18}$	[100-18-5]	1,4-diisopropylbenzene				
	V	(366–530)	50.7 ± 0.2	400	EB	[2002STE/CHI6]
	V	(366–530)	46.3 ± 0.3	440	EB	[2002STE/CHI6]
	V	(366–530)	43.0 ± 0.5	480	EB	[2002STE/CHI6]
	V	(366–530)	39.3 ± 0.9	520	EB	[2002STE/CHI6]
	V	(283–318)	56.3 ± 0.3	301	GS	[1998VER7]
	V	(283–318)	56.5 ± 0.3	298	GS	[1998VER7]
	V	(393–485)	47.6	408	A	[1987STE/MAL]
	V	(393–485)	48.9	408		[1959MCD/SHR, 1984BOU/FRI]
$C_{12}H_{18}$	[98-19-1]	1,3-dimethyl-5-*tert*-butylbenzene				
	V	(284–318)	56.5 ± 0.6	301	GS	[1998VER]
	V	(284–318)	56.6 ± 0.6	298	GS	[1998VER]
	V	(253–443)	59.8	268		[1993KAS/MOK]
$C_{12}H_{18}$	[87-85-4]	Hexamethylbenzene				
	FUS		23.27	438.7	DSC	[2008MOG/SEP]
	FUS		21.1	439.5	DTA	[1994SAB/TAB]
	TRS		1.5	384.0	DSC	[1996DOM/HEA, 1988PET/TSY]
	TRS		1.1	115.5	AC	[1996DOM/HEA, 1985YOS/FUJ]
	TRS		0.98	117.5	AC	[1982ATA/GYO]
	TRS		1.1	116.5	AC	[1965FRA/AST]
	TRS		1.84	383.8		
	FUS		20.59	438.4		[1996DOM/HEA, 1956MOM/SUG]
	TRS		1.76	383.7		
	FUS		20.63	438.7	RC.	[1996DOM/HEA, 1932SPA/THO]
	TRS		1.0	108	C	[1930HUF/PAR2]
	SUB		80		TGA	[1997GIL/BOT]
	SUB		81.4 ± 0.1	298	C	[1994SAB/TAB]
	SUB	(288–304)	85.0 ± 0.2	298	ME	[1989COL/JIM]
	SUB		74.9 ± 0.6		DSC	[1984HOL]
	SUB	(303–338)	85.2	320	A	[1976AMB/LAW]
	SUB		86.1	298	H	[1976AMB/LAW, 1993CHI/HOS]
	SUB	(314–364)	83.2	329	A	[1969OVE/STE]
	SUB		74.7 ± 2		ME	[1965FRA/AST, 1970COX/PIL]
	SUB		80.8			[1957VAN, 1960JON]
	SUB		80.8			[1949NIT/SEK]
	V		68.6	298	CGC	[2008ZHA/UNH]
	V	(443–537)	56.8	458	A	[1987STE/MAL, 1930MAC/SMI]
$(C_{12}H_{18})$-$(C_6H_3N_2ClO_4)$	[57230-36-1]	(hexamethylbenzene)-(picryl chloride)				
	SUB		93.7			[1949NIT/SEK]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{18}$	[877-44-1]	1,2,4-triethylbenzene				
	V	(319–491)	51.2	334	A	[1987STE/MAL, 1947STU]
$C_{12}H_{18}$	[102-25-0]	1,3,5-triethylbenzene				
	V	(371–534)	59.2 ± 0.3	298	EB	[1997STE/CHI2]
$C_{12}H_{18}$	[10222-95-4]	1,2,4-trimethyl-5-isopropylbenzene				
	V		64.9	298		[1975VIL/PER]
$C_{12}H_{18}$	[6902-73-4]	2-isopropenyl-1-methyl-1-vinyl-3-cyclohexane				
	V	(348–404)	47.8	363	A	[1987STE/MAL]
$C_{12}H_{18}$	[676-22-2]	*E,E,E*-1,5,9-cyclododecatriene				
	SUB	(273–307)	75.2	288	A	[1987STE/MAL]
	SUB		74.7 ± 0.8			[1973RAU/GEY, 1977PED/RYL]
$C_{12}H_{18}ClNO$	[41570-61-0]	2-chloro-α-[[(1,1-dimethylethyl)amino]methyl]benzenemethanol (tulobuterol)				
	FUS (I)		27.1	364		
	FUS (II)		25.4	354	DSC	[2004CAI/BOU]
$C_{12}H_{18}Cl_2NOPS$	[42585-08-0]	(2-chloro-4-methylphenyl) *N*-(sec-butylamido)(chloromethyl)thiophosphonate				
	V	(309–363)	62.6	324	A	[1987STE/MAL]
$C_{12}H_{18}N_2O$	[34123-59-6]	*N*,*N*-dimethyl-*N*′-[4-(1-methylethyl)phenyl]urea				
	FUS		33.87	430.4	DSC	[1991ACR, 1990DON/DRE]
$C_{12}H_{18}N_2O$	[34123-59-6]	*N*′-(*p*-cumenyl)-*N*,*N*-dimethylurea (isoproturon)				
	FUS	(78–346)	21.33	427.4	AC	[2003YU/TAN2]
$C_{12}H_{18}N_2O_2$	[315-18-4]	3,5-dimethyl-4-(dimethylamino)phenyl methylcarbamate				
	FUS		18.37	361.7	DSC	[1991ACR, 1990DON/DRE]
$C_{12}H_{18}N_2O_2S_2$	[120563-92-0]	*N*-isopropyl-*S*-methyl-*N*′-tosylisothiourea				
	FUS		32.7	392.2	DSC	[1992REI/HAN]
$C_{12}H_{18}N_2O_2S_2$	[145198-68-1]	*N*-ethyl-*S*-ethyl-*N*′-tosylisothiourea				
	FUS		30.3	390.2	DSC	[1992REI/HAN]
$C_{12}H_{18}N_2O_3$	[76-73-3]	5-(1-methylbutyl)-5-(2-propen-1-yl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione (secobarbital)				
	FUS		22.9	371.8	DSC	[2008WAS/HOL]
	FUS		17.4		DSC	[1982TRE/VAU]
$C_{12}H_{18}N_2O_3S$	[64-77-7]	3-(*p*-tolyl-4-sulfonyl)-1-butyl urea (tolbutamide)				
	TRS (I)		1.9	313.2		
	FUS (I)		23.8	401.2	DSC	[2010THI/AIT]
	FUS		26.24	402	DSC	[2010BAI/VAN]
	FUS		27.2	400.2	DSC	[1999KIM/HIR]
	FUS		25.61	404.8	DSC	[1982MAR/MIR]
$C_{12}H_{18}N_4O_2$	[35873-41-7]	8-pentyltheophylline				
	FUS		35.1	498.4	DSC	[1991ACR, 1989GON/KRA]
$C_{12}H_{18}N_4O_6S$	[19044-88-3]	4-(*N*,*N*-dipropylammo)-3,5-dmitrobenzenesulphommide				
	FUS		38.48	414.8	DSC	[1990DON/DRE]
$C_{12}H_{18}O$	[5331-28-2]	4-*tert*-butyldiphenyl oxide				
	FUS	(8–371)	21.99	327.8	AC	[2015DRU/PIM]
	SUB	(299–324)	100.1 ± 1.0	298	GS	[2015DRU/PIM]
$C_{12}H_{18}O$	[4157-77-1]	(1-butoxyethyl)benzene				
	V	(278–318)	59.8 ± 0.3	298	GS	[2001VER/HEI]
$C_{12}H_{18}O$	[445251-36-5]	(*RS*)-(1-sec-butoxyethyl)benzene				
	V	(296–332)	58.7 ± 0.5	298	GS	[2002KRA/VAS, 2002VER/HEI]
$C_{12}H_{18}O$	[445251-38-7]	(*SS*)-(1-sec-butoxyethyl)benzene				
	V	(297–332)	59.1 ± 0.5	298	GS	[2002KRA/VAS, 2002BAE/SHI2]
$C_{12}H_{18}O$	[24142-77-6]	Propyl cumyl ether				
	V	(278–325)	59.1 ± 0.2	302	GS	[2001VER/HEI2]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(278–325)	59.3 ± 0.2	298	GS	[2001VER/HEI2]
$C_{12}H_{18}O$	[6382-14-5]	Benzyl pentyl ether				
	V	(363–512)	50.8	378	A	[1987STE/MAL, 1969KRO]
$C_{12}H_{18}O$	[2934-05-6]	2,4-diisopropylphenol				
	V	(395–528)	58.4	410	A	[1987STE/MAL]
$C_{12}H_{18}O$	[2078-54-8]	2,6-diisopropylphenol				
	FUS		14.64	292.8		[1975BER/PER]
	V	(293–328)	67.9 ± 0.3	310	GS	[1999VER]
	V	(293–328)	68.7 ± 0.3	298	GS	[1999VER]
$C_{12}H_{18}O$	[26886-05-5]	3,5-diisopropylphenol				
	FUS		12.13	326.3		[1975BER/PER]
$C_{12}H_{18}O$	[68189-19-5]	2,3-dimethyl-4-*tert*-butylphenol				
	V	(418–523)	60.2	433	A	[1987STE/MAL]
$C_{12}H_{18}O$	[46170-85-8]	2,3-dimethyl-6-*tert*-butylphenol				
	V	(412–525)	60.0	427	A	[1987STE/MAL]
$C_{12}H_{18}O$	[1879-09-0]	2,4-dimethyl-6-*tert*-butylphenol				
	V	(304–333)	67.2 ± 0.8	318	GS	[1999VER]
	V	(304–333)	68.4 ± 0.8	298	GS	[1999VER]
	V	(388–522)	58.4	403	A	[1987STE/MAL]
	V	(344–535)	54.4	348		[1953STA/MUL]
	V	(344–535)	52.7	373		[1953STA/MUL]
	V	(344–535)	51.7	398		[1953STA/MUL]
	V	(344–535)	49.7	423		[1953STA/MUL]
	V	(344–535)	45.4	473		[1953STA/MUL]
$C_{12}H_{18}O$	[17696-37-6]	2,5-dimethyl-4-*tert*-butylphenol				
	V	(408–538)	61.7	423	A	[1987STE/MAL]
	V	(361–548)	62.0	373		[1953STA/MUL]
	V	(361–548)	59.4	398		[1953STA/MUL]
	V	(361–548)	57.1	423		[1953STA/MUL]
	V	(361–548)	52.8	473		[1953STA/MUL]
$C_{12}H_{18}O$	[879-97-0]	2,6-dimethyl-4-*tert*-butylphenol				
	V	(392–522)	59.7	407	A	[1987STE/MAL]
	V	(347–530)	58.4	348		[1953STA/MUL]
	V	(347–530)	57.0	373		[1953STA/MUL]
	V	(347–530)	55.4	398		[1953STA/MUL]
	V	(347–530)	54.2	423		[1953STA/MUL]
	V	(347–530)	49.3	473		[1953STA/MUL]
$C_{12}H_{18}O$	[1445-23-4]	3,4-dimethyl-6-*tert*-butylphenol				
	V	(413–532)	62.7	428	A	[1987STE/MAL]
$C_{12}H_{18}O$	[63452-61-9]	2-ethyl-4-*tert*-butylphenol				
	V	(428–623)	61.6	443	A	[1987STE/MAL]
	V	(397–543)	55.4	398		[1953STA/MUL]
	V	(397–543)	54.2	423		[1953STA/MUL]
	V	(397–543)	49.3	473		[1953STA/MUL]
$C_{12}H_{18}O$	[63551-41-7]	2-ethyl-6-*tert*-butylphenol				
	V	(393–443)	58.2	408	A	[1987STE/MAL]
$C_{12}H_{18}O$	[4237-25-6]	3-ethyl-6-*tert*-butylphenol				
	V	(415–530)	59.5	430	A	[1987STE/MAL]
$C_{12}H_{18}O$	[96-70-8]	4-ethyl-2-*tert*-butylphenol				
	V	(394–523)	59.2	409	A	[1987STE/MAL]
	V	(349–533)	57.0	373		[1953STA/MUL]
	V	(349–533)	55.4	398		[1953STA/MUL]
	V	(349–533)	54.2	423		[1953STA/MUL]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(349–533)	49.3	473		[1953STA/MUL]
$C_{12}H_{18}O$	[71745-63-6]	2-methyl-4-*tert*-pentylphenol				
	V	(443–653)	65.6	458	A	[1987STE/MAL]
	V	(409–561)	55.3	423		[1953STA/MUL]
	V	(409–561)	50.7	473		[1953STA/MUL]
$C_{12}H_{18}O$		3-methyl-4-*tert*-pentylphenol				
	V	(443–683)	65.1	458	A	[1987STE/MAL]
	V	(409–561)	55.3	423		[1953STA/MUL]
	V	(409–561)	50.7	473		[1953STA/MUL]
$C_{12}H_{18}O$	[34072-71-4]	4-methyl-2-*tert*-pentylphenol				
	V	(423–653)	61.4	438	A	[1987STE/MAL]
	V	(394–538)	58.1	398		[1953STA/MUL]
	V	(394–538)	55.3	423		[1953STA/MUL]
	V	(394–538)	50.7	473		[1953STA/MUL]
$C_{12}H_{18}O$	[1660-04-4]	1-adamantyl methyl ketone				
	SUB	(287–305)	84.2 ± 0.6	298	ME	[1992ABB/JIM2]
$C_{12}H_{18}O$	[7273-98-5]	*exo*-4-hydroxy-*endo*-*endo*-tetracyclo[6.2.1.1^{3,6}.0^{2,7}]dodecane				
	SUB	(303–343)	77.1 ± 2.2	323	TSGC	[1980STE]
	SUB	(303–343)	79.0 ± 2.5	298	TSGC	[1980STE]
$C_{12}H_{18}O$	[107133-43-7]	*exo*-4-hydroxy-*exo*-*endo*-tetracyclo[6.2.1.1^{3,6}.0^{2,7}]dodecane				
	SUB	(323–353)	74.3 ± 1.8	338	TSGC	[1980STE]
	SUB	(323–353)	76.3 ± 2.0	298	TSGC	[1980STE]
$C_{12}H_{18}O$	[74007-11-7]	*exo*-4-hydroxy-*exo*-*exo*-tetracyclo[6.2.1.1^{3,6}.0^{2,7}]dodecane				
	SUB	(313–353)	73.9 ± 2.0	333	TSGC	[1980STE]
	SUB	(313–353)	75.9 ± 2.2	298	TSGC	[1980STE]
$C_{12}H_{18}O$	[1011-12-7]	2-(1′-cyclohexenyl)cyclohexanone				
	FUS		17.26	278.8	AC	[1992MAR/KOZ]
	V	(298–358)	72.8 ± 0.8	328	ME	[1992MAR/KOZ]
$C_{12}H_{18}O_2$	[5673-09-6]	1,3-dihydroxy-2-hexylbenzene				
	V	(433–494)	76.8	448	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_{12}H_{18}O_2$	[136-77-6]	1,3-dihydroxy-4-hexylbenzene				
	FUS		19.04	341.5	DSC	[1991ACR, 1985OCH]
	V	(434–494)	88.1	449	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_{12}H_{18}O_2$	[711-01-3]	1-adamantyl-l-carboxylic acid methyl ester				
	SUB	(267–283)	84.3 ± 0.6	275	ME	[1992ABB/JIM]
	SUB	(267–283)	82.4 ± 0.6	298	ME	[1992ABB/JIM]
$C_{12}H_{18}O_2$		*trans-syn-trans*-decahydro-3-hydroxy-2-naphthalene acetic γ-lactone				
	SUB	(240–310)	NA		ME	[1957SPI]
$C_{12}H_{18}O_2$		*trans-anti-trans*-decahydro-3-hydroxy-2-naphthalene acetic γ-lactone				
	SUB	(240–310)	NA		ME	[1957SPI]
$C_{12}H_{18}O_3$	[63991-78-6]	(racemic) 3-(2-propylphenoxy)-propane-1,2-diol				
	FUS		29.5	326.5	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_3$	[1092799-99-9]	(*R*)-3-(2-propylphenoxy)-propane-1,2-diol				
	FUS		31.9	340.5	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_3$	[204583-98-2]	(racemic) 3-(2-isopropylphenoxy)-propane-1,2-diol				
	FUS		31.5	353.7	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_3$	[204584-38-3]	(*R*)-3-(2-isopropylphenoxy)-propane-1,2-diol				
	FUS		30.6	345	DSC	[2008BRE/BRE]
$C_{12}H_{18}O_4$	[532-34-3]	3,4-dihydro-2,2-dimethyl-4-oxo-2*H*-pyran-6-carboxylic acid, butyl ester				
	V	(357–435)	64.7	372	A	[1987STE/MAL]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{18}O_6$	[5349-99-5]	Triethyl aconitate				
	V	(423–540)	79.6	438	A	[1987STE/MAL]
$C_{12}H_{18}O_6$		(*R*,*R*,*R*)-4,8,12-trimethyl-1,5,9-trioxacyclododeca-2,6,10-trione				
	FUS	(5–430)	21.51	380.2	AC,C	[1996LEB/BYK]
$C_{12}H_{19}ClNO_3P$	[299-86-5]	*N*-methyl-*O*-methyl-*O*-2-chloro-4-*tert*-butylphenylphosphoramidate				
	FUS		21.98	332	DSC	[1990DON/DRE]
$C_{12}H_{19}F_3N_2O_4$	[102043-67-4]	*N*-[(*N*-trifluoroacetyl)valyl]alanine ethyl ester				
	SUB	(323–424)	115.5	338	A	[1987STE/MAL, 1960WEY/KLI]
	V	(425–453)	86.4	439	A	[1987STE/MAL, 1999DYK/SVO, 1960WEY/KLI]
$C_{12}H_{19}N$	[24544-04-5]	2,6-diisopropylaniline				
	V	(284–323)	69.2 ± 0.3	303	GS	[2000VER3]
	V	(284–323)	69.5 ± 0.3	298	GS	[2000VER3]
$C_{12}H_{19}N$	[202925-84-6]	*N*-methyl-3-methyl-3-phenyl-2-butaneamine				
	V	(283–330)	67.0 ± 0.8	307	GS	[1998VER/BEC]
	V	(283–330)	67.5 ± 0.8	298	GS	[1998VER/BEC]
$C_{12}H_{20}$	[770-69-4]	1-ethyladamantane				
	FUS	(8–373)	11.28	225.6	AC	[2005VAR/DRU]
	V		55.3 ± 1.1	298		[2000MEL/PIM]
	V	(383–492)	49.1	398	A	[1987STE/MAL]
	V	(368–492)	47.4	492		[1960HAL/LAN]
$C_{12}H_{20}$	[702-79-4]	1,3-dimethyladamantane				
	TRS	(8–373)	9.31	223.4		
	FUS	(8–373)	1.54	247.8	AC	[2005VAR/DRU]
	TRS		7.65	221		
	FUS		0.94	244	DSC	[1980ARN/SCH]
	TRS		7.36	221		
	FUS		0.92	245	DSC	[1977CLA/KNO]
	SUB		67.8 ± 1.3	298	EB	[1977STE/WAT]
	V		49.2 ± 0.2	308	C	[2001VAR/PAS]
	V		49.7 ± 0.2	298	C	[2001VAR/PAS]
	V	(352–526)	49.4 ± 0.3	298	EB	[1996STE/CHI]
	V	(352–526)	45.9 ± 0.3	360	EB	[1996STE/CHI]
	V	(352–526)	43.7 ± 0.3	400	EB	[1996STE/CHI]
	V	(352–526)	41.5 ± 0.3	440	EB	[1996STE/CHI]
	V	(352–526)	39.1 ± 0.3	480	EB	[1996STE/CHI]
	V	(352–526)	36.4 ± 0.3	520	EB	[1996STE/CHI]
$C_{12}H_{20}$	[19740-34-2]	2,2-dimethyladamantane				
	SUB	(300–360)	73.6 ± 1.3	298	BG	[1977STE/WAT]
$C_{12}H_{20}N_2$	[3867-15-0]	1-(1-piperidiny l)cyclohexanecarbonitrile				
	FUS		25.44	339.2		[1997WEL/VER]
	SUB		87.8 ± 0.6	298		[1997WEL/VER]
$C_{12}H_{20}N_2$	[4543-66-2]	Dodecanedinitrile				
	FUS		34.33	294.2	DSC	[2007BAD/BLA]
$C_{12}H_{20}N_2O_2$	[6310-76-5]	*N*,*N*′-ethylene-bis(4-aminopent-3-ene-2-one)				
	SUB	(358–374)	128.2 ± 0.7	366	ME	[1995RIB/RIB]
	SUB	(358–374)	131.6	298	ME	[1995RIB/RIB]
$C_{12}H_{20}N_2O_2$	[63254-50-2]	(*1R*,*2S*,*5R*)-2-isopropyl-5-methylcyclohexyl diazoacetate				
	FUS	(78–344)	17.2	320.4	AC	[2000DI/TAN2]
$C_{12}H_{20}N_4O_2$	[51235-04-2]	3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4(1*H*,3*H*)-dione				
	FUS		20.36	389.6	DSC	[1990DON/DRE]
$C_{12}H_{20}O$	[4789-40-6]	2,5-di-*tert*-butylfuran				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(274–323)	56.1 ± 1.1	298	GS	[1998VER/WEL]
$C_{12}H_{20}O$	[90-42-6]	2-cyclohexylcyclohexanone				
	FUS		18.0	277	AC	[1992MAR/KOZ]
	V	(370–481)	54.0 ± 0.6	425	GS	[1992MAR/KOZ]
$C_{12}H_{20}O_2$	[76-49-3]	Bornyl acetate				
	V	(319–496)	50.8	334	A	[1987STE/MAL, 1947STU]
$C_{12}H_{20}O_2$	[105-87-3]	Geranyl acetate				
	V	(346–516)	58.1	361	A	[1987STE/MAL, 1947STU]
$C_{12}H_{20}O_2$	[125-12-2]	Isobornyl acetate				
	V	(381–472)	52.1	400	Boiling Pt	[2014WAN/HUA]
	V	(404–450)	56.1	419	A	[1987STE/MAL]
	V		53.6			[1937RUD/KOR]
$C_{12}H_{20}O_2$		Bicyclo[2,2,1]heptane-7-one 2,2-dimethylpropylene acetal				
	V	(293–323)	60.5 ± 0.9	298	GS	[2002VER]
$C_{12}H_{20}O_2$	[115-95-7]	3,7-dimethyl-1,6-octadien-3-ol acetate (linalyl acetate)				
	V		62.5 ± 0.6	298	CGC	[2015KOZ/GOB]
	V	(281–490)	57.8	296	A	[1987STE/MAL]
	V	(328–493)	56.8	343		[1947STU]
$C_{12}H_{20}O_2$	[80-26-2]	Terpineol acetate				
	V	(310–424)	68.1	325	A	[1987STE/MAL]
$C_{12}H_{20}O_2$	[217467-40-8]	Bicyclo[2.2.1]heptane-7-one 2,2-dimethylpropylene ketal				
	FUS		23.9	346.7		[1998VER/PEN]
	SUB		84.0 ± 0.9	298		[1998VER/PEN]
$C_{12}H_{20}O_2$	[10329-90-5]	1,7-cyclododecanedione				
	FUS		15.77	405.2		[1972ALV/BOR]
$C_{12}H_{20}O_2$	[28746-99-8]	2-(1′-hydroxycyclohexyl)cyclohexanone				
	FUS	(5–310)	20.81	306.8	DSC	[2006SHE/KAB]
$C_{12}H_{20}O_3$	[49540-29-6]	3,3,6,6-tetramethyoctanedioic anhydride				
	FUS		18.83	344.2		[1974BOR]
$C_{12}H_{20}O_4$	[27198-40-9]	1,5-cyclooctanedione bis(ethylene ketal)				
	FUS		18.03	296.2		[1972ALV/BOR]
$C_{12}H_{20}O_4$	[105-76-0]	Dibutyl maleate				
	V	(255–550)	41.1	270	A	[1987STE/MAL]
$C_{12}H_{20}O_4$	[2370-71-0]	Octyl maleate				
	FUS		33.2	304.3	DSC	[2016RIC/DEL]
$C_{12}H_{20}O_5$		2-ethoxycarbonylpropionic acid, cyclohexyl ester				
	V	(388–523)	67.6	403	A	[1987STE/MAL]
$C_{12}H_{20}O_6$	[139-45-7]	Tripropionin				
	V	(304–337)	90.7 ± 0.4	298	GS	[2010MAS/KRA]
	V		91.4 ± 0.4	298	C	[1986NIL/WAD]
$C_{12}H_{20}O_7$	[77-93-0]	Triethyl citrate				
	V	(380–567)	68.2	395	A	[1987STE/MAL]
$C_{12}H_{20}S$	[880-36-4]	2-octylthiophene				
	V		65.4 ± 1.4	298	C	[2007RIB/SAN]
$C_{12}H_{20}S$	[65016-62-8]	3-octylthiophene				
	V		67.6 ± 1.5	298	C	[2007RIB/SAN]
$C_{12}H_{21}N$	[13392-28-4]	1-(1-adamantyl)ethylamine				
	V		68.7 ± 3.7	298	CGC	[2013GOB/RAT]
$C_{12}H_{21}N$	[6326-88-1]	Dodecahydrocarbazole				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		22.91	349.5	DSC	[2016STA/KEI]
	SUB	(306–342)	84.0 ± 0.6	298	GS	[2015STA/EME]
$C_{12}H_{21}NO_2$	[5810-18-4]	11-cyanoundecanoic acid				
	FUS		38.33	329.9	DSC	[2011WEI/LI]
$C_{12}H_{21}N_2O_3PS$	[333-41-5]	Diethyl 2-isopropyl-4-methyl-6-pyrimidinyl phosphorothioate (diazinon)				
	V	(373–403)	U11	385	GC	[2007GOE/MCC]
[Note: The value reported in Ref. [2007GOE/MCC] is abnormally small compared to molecules having comparable molecular structures.]						
	V	(293–398)	87.4	308	A	[1987STE/MAL, 1999DYK/SVO]
$C_{12}H_{21}O_4P$	[14019-81-9]	Trimethallyl phosphate				
	V	(367–597)	53.9	381		[1947STU]
$C_{12}H_{22}$	[765-03-7]	1-dodecyne				
	V	(440–489)	49.3	455	EB	[1986ELV/KUD]
$C_{12}H_{22}$	[629-49-2]	2-dodecyne				
	V	(448–498)	50.9	463	EB	[1986ELV/KUD]
$C_{12}H_{22}$	[6790-27-8]	3-dodecyne				
	V	(442–492)	50.2	457	EB	[1986ELV/KUD]
$C_{12}H_{22}$	[22058-01-1]	4-dodecyne				
	V	(434–478)	50.5	449	EB	[1986ELV/KUD]
$C_{12}H_{22}$	[1978-12-2]	5-dodecyne				
	V	(442–491)	49.8	457	EB	[1986ELV/KUD]
$C_{12}H_{22}$	[6975-99-1]	6-dodecyne				
	V	(451–505)	49.1	466	EB	[1986ELV/KUD]
$C_{12}H_{22}$	[92-51-3]	*cis*-bicyclohexyl				
	V	(331–511)	53.8	346	A	[1987STE/MAL]
$C_{12}H_{22}$	[92-51-3]	Bicyclohexyl				
	TRS	(6–440)	3.7	267.4		
	TRS	(6–440)	7.26	273		
	FUS	(6–440)	6.86	276.8	AC	[1998CHI/COW]
	TRS	(225–470)	1.54	256.1		
	TRS	(225–470)	0.74	267.5		
	TRS	(225–470)	7.08	273.5		
	FUS	(225–470)	6.78	277.2	DSC	[1996DOM/HEA, 1983ORO/MRA]
	V	(425–577)	50.1	435		[1981WIE/KOB, 1980WIE/KOB]
	V	(425–577)	42.5	525		[1981WIE/KOB, 1980WIE/KOB]
	V		58.0 ± 0.2	298	C	[1978MON/ROS]
	V		58.5 ± 0.6	298	C	[1978MAN, 1978MON/ROS]
$C_{12}H_{22}$	[6975-99-1]	6-dodecyne				
	V	(373–388)	60.9	380	A	[1987STE/MAL]
$C_{12}H_{22}$	[66330-07-2]	Perhydroacenaphthylene				
	V	(422–514)	49.6	437	EB	[2000ROH/CEN]
$C_{12}H_{22}CI_4$	[210115-98-3]	1,2,11,12-tetrachlorododecane				
	V		81.9			[1998DRO/TOM]
$C_{12}H_{22}N_2$	[60964-49-0]	1-octyl-2-methylimidazole				
	V	(323–373)	83.8 ± 0.2	298	GS	[2011EME/POR2]
$C_{12}H_{22}N_2O_2$	[56403-09-9]	1,8-diaza-2,9-dioxocyclotetradecane				
	TRS		13.6	517.4		
	FUS		49.3	617.8	DSC	[1993SCH/KVA]
$C_{12}H_{22}N_2$	[53657-08-2]	1-nonylimidazole				
		(328–372)	85.6 ± 0.2	298	GS	[2011EME/POR]
$C_{12}H_{22}N_6$	[16268-79-4]	1-(piperidinyl)-3,5-(dimethylamino)-(*s*)-triazine				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		23.22	361.5	DSC	[1991ACR, 1989BRA/RYT]
$C_{12}H_{22}O$	[58879-21-3]	*trans*-2-cyclohexylcyclohexanol				
	FUS	(5–337)	14.52	325.8	AC	[1997MAK/KAB]
	SUB	(293–325)	96.6 ± 0.6	309	ME	[1997MAK/KAB]
	SUB		98.6 ± 0.5	320	C	[1997MAK/KAB]
	V	(328–364)	83.2 ± 1.2	346	ME	[1997MAK/KAB]
	V		80.3 ± 0.3	346	C	[1997MAK/KAB]
$C_{12}H_{22}O$	[830-13-7]	Cyclododecanone				
	FUS		16.85	335.6	DSC	[1996ROU/JIM, 1998GON/SZW]
	FUS		16.75		DSC	[1972WOL]
	SUB	(282–300)	83.2 ± 0.3	298	ME	[1996ROU/JIM]
	SUB	(282–300)	83.3 ± 0.3	291	ME	[1996ROU/JIM]
	V	(373–443)	61	388	A	[1987STE/MAL, 1972WOL]
	V	(408–450)	57.9	423	A,EB	[1987STE/MAL, 1976MEY/HOT]
	V	(458–556)	54.7	473	A,EB	[1987STE/MAL, 1976MEY/HOT]
	V	(373–443)	65.5 ± 0.6	298	VP	[1972WOL]
$C_{12}H_{22}O$	[33956-49-9]	*trans*,*trans*-8,10-dodecadien-1-ol				
	V		92.3 ± 2.6	298	CGC	[2015SCH/HAR]
$C_{12}H_{22}O$	[81149-96-4]	(*Z*)-2-dodecenal				
	V	(323–363)	72.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[20407-84-5]	(*E*)-2-dodeceml				
	V	(323–363)	72.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[68141-15-1]	(*Z*)-3-dodecenal				
	V	(323–363)	69.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[76595-72-7]	(*E*)-3-dodecenal				
	V	(323–363)	70.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[21944-98-9]	(*Z*)-4-dodecenal				
	V	(323–363)	69.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[174155-48-7]	(*E*)-4-dodecenal				
	V	(323–363)	69.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[68820-33-7]	(*Z*)-5-dodecenal				
	V	(323–363)	69.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[68820-34-8]	(*E*)-5-dodecenal				
	V	(323–363)	69.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[126745-61-7]	(*Z*)-6-dodecenal				
	V	(323–363)	69.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[174155-49-8]	(*E*)-6-dodecenal				
	V	(323–363)	67.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[63851-40-1]	(*Z*)-7-dodecenal				
	V	(323–363)	69.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[82944-76-1]	(*E*)-7-dodecenal				
	V	(323–363)	69.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[139909-65-2]	(*Z*)-8-dodecenal				
	V	(323–363)	70.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[144298-64-6]	(*E*)-8-dodecenal				
	V	(323–363)	69.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[56219-03-5]	(*Z*)-9-dodecenal				
	V	(323–363)	70.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[155235-07-7]	(*E*)-9-dodecenal				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(323–363)	70.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[81892-61-7]	(*Z*)-10-dodecenal				
	V	(323–363)	71.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O$	[81892-62-8]	(*E*)-10-dodecenal				
	V	(323–363)	70.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[947-05-7]	Dodecanolactone				
	V	(377–403)	64.2 ± 1.1	390	MM	[1991WIB/WAL]
	V	(377–403)	70.5 ± 1.7	298	MM	[1991WIB/WAL]
$C_{12}H_{22}O_2$	[2305-05-7]	γ-dodecanolactone				
	V		83.9 ± 4.6	298	CGC	[2014KOZ/GOB]
$C_{12}H_{22}O_2$	[713-95-1]	δ-dodecanolactone				
	V		84.6 ± 4.7	298	CGC	[2014KOZ/GOB]
$C_{12}H_{22}O_2$	[32210-23-4]	Acetic acid, 4-*tert*-butylcyclohexyl ester				
	V	(285–318)	63.8	300	A,ME	[1987STE/MAL, 1958SER/VOI, 1957SER/VOI]
$C_{12}H_{22}O_2$		3,3-dimethylbutanoic acid, cyclohexyl ester				
	V	(333–378)	62.1	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$		l-methylcyclohexyl pivalate				
	V	(333–378)	57.9	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$		3-methylcyclohexyl pivalate				
	V	(333–378)	60.5	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$		4-methylcyclohexyl pivalate				
	V	(333–378)	60.9	298	CGC	[1999VER/HEI]
$C_{12}H_{22}O_2$	[16409-45-3]	(*d*)-menthyl acetate				
	V	(330–500)	55.3	345	A	[1987STE/MAL, 1947STU]
$C_{12}H_{22}O_2$	[150-84-5]	Citronellyl acetate				
	V		67.8 ± 1.8	298	CGC	[2015KOZ/GOB]
	V	(347–490)	68.7	362	A	[1987STE/MAL, 1947STU]
$C_{12}H_{22}O_2$	[61732-97-6]	2-(1-ethylpentyl)-4,7-dihydro-1,3-dioxepin				
	V	(333–453)	66.3	348	A	[1987STE/MAL, 1977VOI/SHC]
$C_{12}H_{22}O_2$	[2664-55-3]	Nonyl acrylate				
	FUS		23.36	236.5	AC	[1990DOM/HEA, 1985KAR/ABD]
$C_{12}H_{22}O_2$	[2157-01-9]	Octyl methacrylate				
	FUS		24.09	230.3	AC	[1990DOM/HEA, 1985KAR/ABD]
	V	(384–513)	55.6	399	A	[1987STE/MAL]
$C_{12}H_{22}O_2$	[111-81-9]	Methyl 10-undecenoate				
	V	(397–524)	59.2	412	A	[1987STE/MAL]
$C_{12}H_{22}O_2$	[81634-99-3]	(*Z*)-3-decenyl acetate				
	V	(313–358)	69.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(299–313)	72.0	306	GC	[1983OLS/JON]
$C_{12}H_{22}O_2$	[81634-98-2]	(*E*)-3-decenyl acetate				
	V	(313–358)	70.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[67452-27-1]	(*Z*)-4-decenyl acetate				
	V	(313–358)	69.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[69222-16-8]	(*E*)-4-decenyl acetate				
	V	(313–358)	70.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[67446-07-5]	(*Z*)-5-decenyl acetate				
	V	(313–358)	69.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(299–313)	72.0	306	GC	[1983OLS/JON]
$C_{12}H_{22}O_2$	[38421-90-8]	(*E*)-5-decenyl acetate				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(313–358)	70.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[68760-70-3]	(*Z*)-6-decenyl acetate				
	V	(313–358)	70.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$		(*E*)-6-decenyl acetate				
	V	(313–358)	70.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(299–313)	72.0	306	GC	[1983OLS/JON]
$C_{12}H_{22}O_2$	[13857-03-9]	(*Z*)-7-decenyl acetate				
	V	(313–358)	70.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[13857-04-0]	(*E*)-7-decenyl acetate				
	V	(313–358)	71.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[83808-51-9]	(*Z*)-8-decenyl acetate				
	V	(313–358)	71.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_2$	[83808-51-9]	(*Z*)-8-decenyl acetate				
	V	(313–358)	71.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{12}H_{22}O_3$		Heptyl levulinate				
	V	(393–558)	62.6	408	A	[1987STE/MAL]
	V		60.0	496		[1931SCH/COW]
$C_{12}H_{22}O_3$	[18871-14-2]	3-pentyl-4-acetoxytetrahydro-2*H*-pyran				
	V	(383–453)	65.8	398	A	[1987STE/MAL]
$C_{12}H_{22}O_4$	[106-19-4]	Dipropyl adipate				
	V	(319–365)	75.5	342	GS	[2011LIP/KRA]
	V	(319–365)	81.0 ± 0.3	298	GS	[2011LIP/KRA]
	V	(413–540)	63.6	428	A	[1987STE/MAL]
	V	(413–540)	85.7	298	A	[1987STE/MAL, 2011LIP/KRA]
$C_{12}H_{22}O_4$	[141-03-7]	Dibutyl succinate				
	FUS		29.21	244.1		[1996DOM/HEA, 1989KHO/PUL]
	V	(313–358)	74.4	335	GS	[2011LIP/KRA]
	V	(313–358)	79.1	298	GS	[2011LIP/KRA]
$C_{12}H_{22}O_4$	[926-26-1]	Di-*tert*-butyl succinate				
	V	(323–353)	68.6 ± 0.5	298	GS	[2011POR/KRA]
$C_{12}H_{22}O_4$	[74295-86-6]	Octyl succinate				
	FUS		41.8	309.7	DSC	[2016RIC/DEL]
$C_{12}H_{22}O_4$	[5398-08-3]	Isopentylmalonic acid, diethyl ester				
	V	(377–420)	64.1	392	A	[1987STE/MAL, 1981TOD/BEL]
$C_{12}H_{22}O_4$	[117-47-5]	(1-methylbutyl)malonic acid, diethyl ester				
	V	(395–516)	67.4	410	A	[1987STE/MAL, 1978SMI/ZEL]
$C_{12}H_{22}O_4$	[106-79-6]	Dimethyl sebacate				
	V	(304–374)	86.4 ± 0.3	298	GS	[2006VER/KOZ]
$C_{12}H_{22}O_4$	[2051-00-5]	Diisopentyl oxalate				
	V	(358–538)	58.6	373	A	[1987STE/MAL, 1947STU]
$C_{12}H_{22}O_4$	[693-23-2]	Dodecanedioic acid				
	FUS		52.5	401.6	DSC	[2008VEN/BAY, 2008VEN/BAY]
	FUS		49.8	400.3	DSC	[2005ROU/TEM]
	FUS		50.57	402.5	DSC	[1996DOM/HEA, 1974CIN/BER]
	FUS		53.4	402.1		[1972CHA/HAG]
	SUB	(346–377)	169 ± 4		TPD	[2007CAP/LOV]
	SUB	(298–316)	156		TPTD	[2005CHA/ZIE]
	SUB	(375–396)	153.1 ± 2.9	386	ME	[1960DAV/THO, 1970COX/PIL]
	V	(424–503)	130.0 ± 2.3	298	CGC	[2005ROU/TEM]
$C_{12}H_{22}O_4$	[41448-84-4]	Ethylene glycol dipentanoate				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(297–325)	80.2 ± 1.0		GS	[2011MAS/KRA]
$C_{12}H_{22}O_4$	[20267-20-3]	Ethylene glycol di(2,2-dimethylpropanoate				
	V	(295–325)	69.3 ± 1.1		GS	[2011MAS/KRA]
$C_{12}H_{22}O_4$	[155514-29-7]	Ethylene glycol di(2-methylbutanoate)				
	V	(297–327)	71.5 ± 1.1		GS	[2011MAS/KRA]
$C_{12}H_{22}O_4S$	[4121-12-4]	Thiodiglycolic acid, diethyl ester				
	V	(298–383)	75.7	313	A	[1987STE/MAL, 1999DYK/SVO]
$C_{12}H_{22}O_5$	[902261-31-8]	Butyl[1-(butoxy carbonyl)ethyl] carbonate				
	V	(338–513)	68.1	353	A	[1987STE/MAL, 1950REH/DIX2]
$C_{12}H_{22}O_5$		Pentyl[1-(ethoxy carbonyl)isopropyl] carbonate				
	V	(368–513)	63.8	383	A	[1987STE/MAL]
$C_{12}H_{22}O_6$	[856371-29-4]	Lactic acid, *O*-ethoxycarbonyl, 2-butoxyethyl ester				
	V	(383–521)	74.6	398	A	[1987STE/MAL]
$C_{12}H_{22}O_6$	[87-92-3]	Dibutyl tartrate				
	V	(428–511)	79.8	443	A	[1987STE/MAL]
$C_{12}H_{22}O_6$	[4054-82-4]	(*d*)-diisobutyl tartrate				
	V	(390–597)	64.6	405	A	[1987STE/MAL]
$C_{12}H_{22}O_{11}$	[528-50-7]	(*d*)-cellobiose				
	SUB	(474–488)	302 ± 44.0	481	ME	[1999OJA/SUU]
$C_{12}H_{22}O_{11}$	[14641-93-1]	α-lactose				
	FUS		75.2	496.2		[2000MAC/COU, 1983RAE/SCH]
$C_{12}H_{22}O_{11}$	[57-50-1]	Sucrose				
	FUS		45.21	457.2	DSC	[2014MAG/WUR]
	TRS		3.34	419.2		
	FUS		39.39	453.3	DSC	[2011LEE/THO]
[Note: The authors performed measurements as a function of heating rate, and the above values correspond to a heating rate of 2 °C/min.]						
	FUS		46.2	459	DSC	[1988SOP/KEA]
$C_{12}H_{22}S$	[7133-46-2]	Dicyclohexyl sulfide				
	TRS		10.01	274.7		
	FUS		5.68	284.2		[2004STE/CHI]
	V	(335–523)	65.4 ± 0.2	340	IPM,EB	[2004STE/CHI]
	V	(335–523)	62.5 ± 0.1	380	IPM,EB	[2004STE/CHI]
	V	(335–523)	59.5 ± 0.1	420	IPM,EB	[2004STE/CHI]
	V	(335–523)	56.6 ± 0.1	440	IPM,EB	[2004STE/CHI]
	V	(335–523)	53.7 ± 0.1	480	IPM,EB	[2004STE/CHI]
	V	(421–523)	69.0 ± 0.7	298	EB	[1997STE/CHI4]
$C_{12}H_{22}N$	[101-83-7]	Dicyclohexylamine				
	V	(295–333)	62.8 ± 0.2	314	EB	[2015VER/EME3]
	V	(295–333)	64.0 ± 0.3	298	EB	[2015VER/EME3]
	V	(408–529)	54.0	423	A	[1987STE/MAL]
$C_{12}H_{22}N$	[2437-25-4]	Lauronitrile				
	FUS		30.7	274.6	DSC	[2013MEK/BEN]
	V	(298–367)	74.9 ± 0.2	298	GS	[2005EME/VER]
	V		76.1 ± 0.1	298	C	[1977STRI/SUN]
	V	(393–462)	65.2	408	EB	[1971MEY/REN]
	V	(440–556)	60.7	455	A,EB	[1987STE/MAL, 1971MEY/REN, 1973MEY/HOT]
$C_{12}H_{23}NO$	[947-04-6]	Azacyclotridecan-2-one				
	TRS		1.1	361.2		
	FUS		15.9	424.5	DSC	[2012EME/VER]
	SUB	(370–420)	110.6 ± 0.8	298	GS	[2012EME/VER]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		101.6 ± 0.8	298	Sub-Fus	[2012EME/VER]
$C_{12}H_{23}NO_3$	[14305-32-9]	*N*-decanoylglycine				
	TRS+FUS		23.6	379.6	DSC	[2014RED/KRO]
	FUS		42.2	387.6	DSC	[1986MIY/MAT]
$C_{12}H_{23}N_7$	[5512-05-0]	l-(4′-methylpiperizinyl)-3,5-bis(dimethylamino)-(*s*)-triazme				
	FUS		20.42	354.2	DSC	[1989BRA/RYT]
$C_{12}H_{24}$	[294-62-2]	Cyclododecane				
	FUS		16.38	333.8	DSC	[2005HUA/SIM]
	TRS		0.6	199		
	FUS		14.8	333.8	DSC	[1987DRO/MOL, 1987DRO/EME]
	SUB		76.2	298	CGC–DSC	[1998CHI/HES]
	SUB		76.4 ± 1.7			[1957VAN]
	V		63.0	298	CGC	[1998CHI/HES]
	V	(403–453)	62.8	298	CGC	[1995CHI/HOS]
	V	(386–441)	52.6	401	A,EB	[1987STE/MAL, 1976MEY/HOT]
	V	(440–529)	49.8	455	A,EB	[1987STE/MAL, 1976MEY/HOT]
$C_{12}H_{24}$	[112-41-4]	1-dodecene				
	TRS	(12–305)	4.55	212.9		
	FUS	(12–305)	19.87	237.9	C	[1996DOM/HEA, 1957MCC/FIN]
	V	(430–484)	49.3	445		[2011SAP/POK]
	V	(437–487)	48.6	452	EB	[1983ELV/KUU]
	V		60.8 ± 0.3	298	C	[1976STR2, 1977MAN/SEL]
	V		60.3	298		[1971WIL/ZWO]
	V	(396–493)	51.1	411	A	[1987STE/MAL, 1950FOR/CAM]
$C_{12}H_{24}$	[7206-26-0]	*cis*-2-dodecene				
	V	(440–490)	49.0	455	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[7206-13-5]	*trans*-2-dodecene				
	V	(440–489)	49.1	455	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[7239-23-8]	*cis*-3-dodecene				
	V	(438–487)	48.6	453	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[7206-27-1]	*cis*-4-dodecene				
	V	(437–486)	48.3	452	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[7206-15-7]	*trans-4*-dodecene				
	V	(437–487)	48.5	452	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[7206-16-8]	*trans*-5-dodecene				
	V	(437–487)	48.5	452	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[7206-29-3]	*cis*-6-dodecene				
	V	(436–486)	48.1	451	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[7206-17-9]	*trans*-6-dodecene				
	V	(437–487)	48.5	452	EB	[1983ELV/KUU]
$C_{12}H_{24}$	[4292-75-5]	Hexylcyclohexane				
	V		55.9 ± 0.5	298	GC	[1987AZA]
	V		59.0 ± 0.5	298	GCC	[1978FUC/PEA]
	V		59.9	298		[1971WIL/ZWO]
$C_{12}H_{24}$	[5617-42-5]	Heptylcyclopentane				
	V		60.8	298		[1971WIL/ZWO]
$C_{12}H_{24}$	[27656-49-1]	*trans*-2,2,4,6,6-pentamethyl-3-heptene				
	V	(291–318)	65.6 ± 0.5	305	GS	[2000VER/WAN]
	V	(291–318)	65.9 ± 0.3	298	GS	[2000VER/WAN]
$C_{12}H_{24}$	[27656-50-4]	*cis*-2,2,4,6,6-pentamethyl-3-heptene				
	V	(288–318)	63.0 ± 0.5	303	GS	[2000VER/WAN]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(288–318)	63.2 ± 0.5	298	GS	[2000VER/WAN]
$C_{12}H_{24}Cl_2$	[3922-28-9]	1,12-dichlorododecane				
	V		73.1			[1998DRO/TOM]
$C_{12}H_{24}N_2O_2$	[10263-96-4]	*N*,*N*′-di-*n*-propyladipamide				
	FUS		36.11	452		[1984DOM/EVA]
$C_{12}H_{24}N_2O_2$	[6224-99-3]	Dodecandiamide				
	TRS		5.09	422.8		
	FUS		73.7	466.1	DSC	[2006BAD/DEL]
$C_{12}H_{24}N_2O_2$	[3129-91-7]	Dicyclohexyl ammonium nitrite				
	SUB	(290–298)	99.1	294	TE	[1987STE/MAL, 1965MAR]
	SUB		U161.8			[1985TRU/KRA]
	SUB	(308–339)	105.9	324		[1961ROZ/POL]
$C_{12}H_{24}O$	[1724-39-6]	Cyclododecanol				
	V	(405–468)	68.8	420	A	[1987STE/MAL]
	V	(467–557)	57.1	482	A	[1987STE/MAL]
$C_{12}H_{24}O$	[112-54-9]	Dodecanal				
	FUS		43.38	286.5	DSC	[2012BEI/RUE]
	V	(314–347)	68.3 ± 0.9	298	GS	[2003VER/KRA2]
	V	(308–353)	70.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	V	(350–530)	56.5	365	A	[1987STE/MAL, 1947STU]
$C_{12}H_{24}O$	[6175-49-1]	2-dodecanone				
	FUS		39.48	294.3	DSC	[2011DOM/PAD]
	V	(350–520)	61.1	365	A	[1987STE/MAL, 1947STU]
	V		71.8 ± 0.6	298	C	[1977SEL]
	V	(386–609)	60.8	401	A	[1987STE/MAL, 1975AMB/ELL]
	V	(386–609)	48.1	524		[1975AMB/ELL]
$C_{12}H_{24}O$	[19321-39-2]	Ethyl *p*-methyl ether				
	V	(366–414)	50.9	381	A	[1987STE/MAL]
$C_{12}H_{24}O$	[20999-39-7]	1-heptylcyclopentanol				
	V	(395–524)	58.6	410	A	[1987STE/MAL, 1944MCL/EDW]
$C_{12}H_{24}O$	[3964-63-4]	1-hexylcyclohexanol				
	V	(380–491)	53.5	395	A	[1987STE/MAL, 1947WIL/EDW]
$C_{12}H_{24}O$	[69064-36-4]	(*Z*)-2-dodecen-1-ol				
	V	(333–373)	90.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[69064-37-5]	(*E*)-2-dodecen-1-ol				
	V	(333–373)	91.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[32451-95-9]	(*Z*)-3-dodecen-1-ol				
	V	(333–373)	89.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[68900-87-8]	(*E*)-3-dodecen-1-ol				
	V	(333–373)	89.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[40642-37-3]	(*Z*)-4-dodecen-1-ol				
	V	(333–373)	89.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[81745-38-2]	(*E*)-4-dodecen-1-ol				
	V	(333–373)	90.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[40642-38-4]	(*Z*)-5-dodecen-1-ol				
	V	(333–373)	90.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[62936-12-3]	(*E*)-5-dodecen-1-ol				
	V	(333–373)	90.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[40642-39-5]	(*Z*)-6-dodecen-1-ol				
	V	(333–373)	90.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{24}O$	[52957-14-9]	(*E*)-6-dodecen-1-ol				
	V	(333–373)	90.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[20056-92-2]	(*Z*)-7-dodecen-1-ol				
	V	(333–373)	90.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[16695-40-2]	(*E*)-7-dodecen-1-ol				
	V	(333–373)	90.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[40642-40-8]	(*Z*)-8-dodecen-1-ol				
	V	(333–373)	91.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[42513-42-8]	(*E*)-8-dodecen-1-ol				
	V	(333–373)	91.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35148-18-6]	(*Z*)-9-dodecen-1-ol				
	V	(333–373)	91.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35237-62-8]	(*E*)-9-dodecen-1-ol				
	V	(333–373)	91.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35289-30-6]	(*Z*)-10-dodecen-1-ol				
	V	(333–373)	92.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O$	[35237-63-9]	(*E*)-10-dodecen-1-ol				
	V	(333–373)	91.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{12}H_{24}O_2$	[110-38-3]	Ethyl decanoate				
	FUS	(5–370)	32.29	253.6	AC	[2009ZAI/PAU]
	V		70.5 ± 0.8	298	CGC	[2015KOZ/GOB]
	V	(303–462)	66.1	325	Static	[2013BEN/KHI2]
	V		69.9 ± 0.7	305	C	[2009ZAI/PAU]
	V		70.5	298		[2009ZAI/PAU]
	V	(404–440)	58.4 ± 0.1	422	MM	[1991WIB/WAL]
	V	(404–440)	67.4 ± 1.3	298	MM	[1991WIB/WAL]
	V	(359–515)	59.6	374	A	[1987STE/MAL]
$C_{12}H_{24}O_2$	[112-17-4]	Decyl acetate				
	V	(284–321)	70.2 ± 0.3	298	GS	[2006KRA/VER]
	V	(313–358)	71.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(363–515)	61.9	378	A	[1987STE/MAL]
	V	(299–313)	72	306	GC	[1983OLS/JON]
	V	(445–530)	56.3	460	DTA	[1980MEY/AWE]
$C_{12}H_{24}O_2$	[61732-91-0]	4,5-dimethyl-2-heptyl-1,3-dioxolane				
	V	(333–453)	69.8	346	A	[1987STE/MAL, 1977VOI/SHC]
$C_{12}H_{24}O_2$	[143-07-7]	Dodecanoic acid (lauric acid)				
	FUS		34.62	318.5	DSC	[2015CAR/CON]
	FUS		35.46	316.2	DSC	[2014WEI/HAN]
	FUS+TRS		35.6	318.3	DSC	[2014MAX/CAR]
[Note: Value includes the enthalpy for the transition that occurred at 317.9 K.]						
	FUS		35.6	316.4	DSC	[2013HUA/LU]
	FUS		31.0	316.15	DSC	[2012BEN/KHI]
	FUS		41.9	317.0	DSC	[2011EGO/MAR]
	FUS		36.9	316.8	DSC	[2011ZUO/LI]
	FUS		38.7	318.1	DSC	[2009COS/SAR]
	FUS		36.1	316.6	DSC	[2007MOR/COR]
	FUS		34.7	317.9	DSC	[2007MIS/MIS]
	FUS		36.3	317.5	DSC	[2004INO/HIS]
	FUS		U25.4	315.7	DSC	[1992BAB/HWA2]
	FUS	(90–345)	36.3	317.0	AC	[1982SCH/VAN]
	FUS		34.3	316.0	DSC	[1975BER/LEO]
	FUS		36.65	316.9		[1996DOM/HEA, 1924GAR/RAN]
	FUS		44.94	327		[1996DOM/HEA, 1885STO/WIL]
	SUB		147.2 ± 4	298	TPD	[2008CAP/LOV]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(293–303)	127.9	298	A	[1987STE/MAL]
	SUB	(293–308)	132.6	300	ME	[1968BAC/NOV]
	SUB	(296–314)	140.2 ± 3.3	304	ME	[1961DAV/MAL]
	SUB	(293–313)	117.2 ± 2.9	303	ME	[1957LIT]
	V	(393–573)	88.8	408	A	[1987STE/MAL]
	V	(321–341)	95.8	332	ME,TE	[1982FUC/HAL]
	V		81.3	437	I	[1943CRA]
$C_{12}H_{24}O_2$	[61732-93-2]	2-(1-ethylpentyl)-1,3-dioxepane				
	V	(333–373)	68.1	348	A	[1987STE/MAL, 1977VOI/SHC2]
$C_{12}H_{24}O_2$	[61732-92-1]	2-heptyl-1,3-dioxepane				
	V	(328–373)	70.3	343	A	[1987STE/MAL, 1977VOI/SHC2]
$C_{12}H_{24}O_2$	[62159-06-2]	3-heptyl-4-hydroxytetrahydro-2*H*-pyran				
	V	(383–453)	77.6	398	A	[1987STE/MAL, 1977VOI/SHC]
$C_{12}H_{24}O_2$	[23433-02-5]	4-octyl-1,3-dioxane				
	V	(353–453)	65.5	368	A	[1987STE/MAL, 1977VOI/SHC]
$C_{12}H_{24}O_2$	[1731-86-8]	Methyl undecanoate				
	V		66.1	350	CE	[2002VAN/VAN]
	V		67.0 ± 0.1	340	CE	[2002VAN/VAN]
	V		70.8 ± 0.4	298	CE	[2002VAN/VAN]
	V	(433–473)	70.6	298	CGC	[1995CHI/HOS]
	V		71.4 ± 0.3	298	C	[1977MAN/SEL]
	V	(393–473)	60.9	408	A,E	[1987STE/MAL, 1963ROS/SCH]
$C_{12}H_{24}O_2$	[245658-36-0]	3,3-dimethylbutanoic acid, 1,1,2-trimethylpropyl ester				
		(333–378)	57.1	298	CGC	[1999VER/HEI]
$C_{12}H_{24}O_2$	[245658-40-6]	2,2-dimethylpropanoic acid, 1,1,3-trimethylbutyl ester				
	V	(333–378)	54.2	298	CGC	[1999VER/HEI]
$C_{12}H_{24}O_2$	[245658-43-9]	2,6-dimethyl-2-heptanol propanoate				
	V	(333–378)	59.4	298	CGC	[1999VER/HEI]
$C_{12}H_{24}O_3$	[2388-12-7]	Peroxydodecanoic acid				
	SUB	(293–303)	131.4 ± 1.7	298	ME	[1980SWA/KWA]
$C_{12}H_{24}O_3$		Pentyl 2-butoxypropionate				
	V	(373–398)	47.3	385	A,I	[1987STE/MAL, 1933HEN/MUR]
$C_{12}H_{24}O_3$	[7419-98-9]	Methyl 3-octyloxypropionate				
	V	(373–513)	59.8	388	A	[1987STE/MAL]
$C_{12}H_{24}O_4$	[53759-20-9]	2,2,8,8-tetramethyl-1,3,7,9-tetraoxycyclododecane				
	FUS		23.4	383		[1975BOR]
$C_{12}H_{24}O_4$	[43091-26-5]	1,3,9,11-tetraoxacy clohexadecane				
	FUS		35.56	332		[1973DAL/EKE]
$C_{12}H_{24}O_4$	[20732-35-8]	3,6-dimethyl-3,6-di-*tert*-butyl-1,2,4,5-tetraoxyacyclohexane				
	V	(403–473)	53.7	298	CGC	[2007CAN/EYL]
$C_{12}H_{24}O_6$	[24748-23-0]	3,6,9-triethyl-3,6,9-trimethyl-1,2,4,5,7,8-hexaoxacyclononane				
	V	(403–473)	59.2	298	CGC	[2007CAN/EYL]
$C_{12}H_{24}O_6$	[17455-13-9]	1,4,7,10,13,16-hexaoxacyclooctadecane (18-crown-6)				
	FUS		40.0	312.3	DSC	[2016SAN/CRU]
	FUS		35.5	312.3	DSC	[2013KOV/PUS]
	FUS		35.5	312.6	DSC	[2011KOV/GOL]
	FUS		40.9	312.2	DSC	[2000NIC/ORF]
	FUS		35.66	312.4	DSC	[1998DOM, 1998DOM/VEN]
	FUS		34.0	312.2		[1972DAL/KRI]
	SUB		139.7 ± 3.6	298	V+F	[2016SAN/CRU]
	SUB		119.1 ± 6.7	298	CGC–DSC	[2000NIC/ORF]
	SUB		133.2 ± 0.3	298	C	[1990BRI/WAD]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(430–480)	73.6 ± 0.2	455	DTA	[2016SAN/CRU]
	V	(430–480)	98.2 ± 3.0	298	DTA	[2016SAN/CRU]
	V		86.1 ± 6.7	298	CGC	[2000NIC/ORF]
$C_{12}H_{24}O_{11}$	[585-88-6]	1,4-*O*-α-D-glucopyranosyl-D-glucitol (maltitol)				
	FUS		55.07	420	DSC	[2001LEB/VAN, 2003LEB/VAN]
$C_{12}H_{24}O_{11}$	[534-73-6]	α-(*d*)-glucopyranosyl-1,6-sorbitol				
	FUS		56.4	439	DSC	[1996CAM/FIG]
$C_{12}H_{24}O_{11}$	[20942-99-8]	α-(*D*)-glucopyranosyl-1,6-mannitol				
	FUS		55.0	440.8	DSC	[1996CAM/FIG]
$C_{12}H_{24}O_{11}$	[64519-82-0]	6-*O*-α-D-glucopyranosyl-D-arabino-hexitol (isomalt)				
	FUS		44.3		DSC	[2002BOR/CES]
$C_{12}H_{24}S_4$	[297181-32-9]	1,4,8,11-tetrathiacyclohexadecane				
	TRS (needles)		32.0	328.2		
	FUS		5.2	333.2		
	TRS (plates)		27.0	328.2		
	FUS		5.2	333.2	DSC	[2002ROC/GRI]
$C_{12}H_{25}Br$	[143-15-7]	1-bromododecane				
	V		74.8 ± 0.4	298	C	[1976STR3, 1977MAN/SEL]
	V	(411–610)	62.2	426	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{12}H_{25}Cl$	[112-52-7]	1-chlorododecane				
	V		75.8	298		[2006BOL/NER2]
	V		73.9 ± 1.4	298	GS	[2001PUR/CHI]
	V	(390–520)	70.5	298		[1984BOU/FRI, 1991BAS/SVO]
	V		71.9 ± 0.3	298	C	[1977MAN/SEL]
	V		70.3 ± 0.5	298	C	[1975STR/SUN]
	V	(389–519)	62.4	404	A,DTA	[1987STE/MAL, 1969KEM/KRE]
$C_{12}H_{25}Cl$	[2350-12-1]	(*dl*)-2-chlorododecane				
	V	(283–328)	65.3	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[2350-12-1]	(*dl*)-3-chlorododecane				
	V	(283–328)	65.9	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[2350-13-2]	(*dl*)-4-chlorododecane				
	V	(283–328)	64.1	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[2350-14-3]	(*dl*)-5-chlorododecane				
	V	(283–328)	65.9	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}Cl$	[26535-66-0]	6-chlorododecane				
	V	(283–328)	65.5	298	A	[1987STE/MAL, 1970DYK/VAN, 1962GEI/QUI]
$C_{12}H_{25}F$	[334-68-9]	1-fluorododecane				
	V	(288–328)	64.0 ± 0.2	298	GS	[1997SCH/VER]
	V	(374–533)	56.2	389	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{12}H_{25}I$	[4292-19-7]	1-iododododecane				
	V	(426–636)	79.9	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(426–636)	63.5	441	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{12}H_{25}NO$	[996-97-4]	*N,N*-diethylcaprylamide				
	V	(373–510)	71.2	388	A	[1987STE/MAL, 1968DAV/BAT]
$C_{12}H_{25}NO$	[1120-16-7]	Dodecanamide				
	TRS		9.7	321.1		
	FUS		36.3	373.3	DSC	[2008ABA/BAD]
	SUB	(349–368)	152.7 ± 0.8	358.5	ME	[1959DAV/JON2, 1987STE/MAL]
$C_{12}H_{26}$	[112-40-3]	Dodecane				
	FUS		34.63	263.2	DSC	[2005HUA/SIM]
	FUS		35.7	263.1	DSC	[2004MON/RAJ]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		37.1	263.6	C	[1955TUN/STO]
	FUS		36.84	263.6		[1996DOM/HEA, 1954FIN/GRO2]
	FUS		36.58	263.5	C	[1996DOM/HEA, 1931HUF/PAR]
	SUB		100.2	298	B	[1972MOR3]
	SUB		101.7	263	B	[1963BON]
	V		62.1 ± 0.2	298	GS	[2001PUR/CHI]
	V		60.3 ± 0.8	298	CGC	[2000NIC/ORF]
	V		61.4	299	C	[1996VIT/CHA]
	V		58.1	334	C	[1996VIT/CHA]
	V		57.4	344	C	[1996VIT/CHA]
	V	(373–423)	60.7	298	CGC	[1995CHI/HOS]
	V	(363–413)	61.2	298	CGC	[1995CHI/HOS]
	V	(423–473)	61.2	298	CGC	[1995CHI/HOS]
	V		61.5	298		[1994RUZ/MAJ]
	V	(263–371)	65.7	278		[1988SAS/JOS]
	V	(278–400)	61.8	293	A	[1987STE/MAL]
	V	(298–389)	61.1	313	GS	[1986ALL/JOS]
	V		61.8 ± 0.5	298	C	[1976MEL/MAN]
	V		61.2 ± 0.2	298	C	[1974MAN4]
	V		60.4 ± 0.3	298	C	[1972MOR2]
	V		61.3	298		[1971WIL/ZWO]
	V		59.5 ± 0.2	298	C	[1963MOR/SUN]
	V	(400–492)	51.6	415	A,MM	[1987STE/MAL, 1945WIL/TAY]
$C_{12}H_{26}$	[7045-71-8]	2-methylundecane				
	V	(356–484)	49.5	371	A	[1987STE/MAL]
$C_{12}H_{26}$	[1002-43-3]	(*dl*)-3-methylundecane				
	V	(357–485)	48.8	372	A	[1987STE/MAL]
$C_{12}H_{26}$	[2980-69-0]	4-methylundecane				
	V	(359–481)	51.6	374	A	[1987STE/MAL]
$C_{12}H_{26}$	[1632-70-8]	5-methylundecane				
	V	(357–480)	50.3	372	A	[1987STE/MAL]
$C_{12}H_{26}$	[17312-44-6]	2,3-dimethyldecane				
	V	(369–480)	50.0	384	A	[1987STE/MAL]
$C_{12}H_{26}$	[2801-84-5]	2,4-dimethyldecane				
	V	(348–472)	47.5	363	A	[1987STE/MAL]
$C_{12}H_{26}$	[62184-10-5]	2,4,6-trimethylnonane				
	V	(339–459)	46.4	354	A	[1987STE/MAL]
$C_{12}H_{26}$	[62199-46-6]	3,3,6,6-tetramethyloctane				
	V	(347–463)	52.9	362	A	[1987STE/MAL]
$C_{12}H_{26}$	[13475-82-6]	2,2,4,6,6-pentamethylheptane				
	V		49.0 ± 0.2	298	C	[1976MEL/MAN]
$C_{12}H_{26}N_2O$	[4128-38-5]	1-undecyl urea				
	FUS		38.4	385.6	DSC	[2005HAS/TAJ]
$C_{12}H_{26}N_2O_6P_2$	[256374-76-2]	1,2-bis(2-oxo-5,5-dimethyl-1,3,2-dioxyphosphacyclohexyl-2-imino)ethane				
	FUS		20.6	564.7	DSC	[2013QI/WAN]
$C_{12}H_{26}O$	[55962-01-1]	Ethyl decyl ether				
	V		65.9 ± 0.1	298	C	[1985KUS]
$C_{12}H_{26}O$	[112-58-3]	Dihexyl ether				
	V		63.6 ± 0.8	298	CGC	[2000NIC/ORF]
	V	(353–393)	63.5	298	CGC	[1995CHI/HOS]
	V	(372–510)	52.9	387	A	[1987STE/MAL]
	V		64.1 ± 0.1	298	C	[1985KUS]
$C_{12}H_{26}O$	[51323-70-7]	Octyl *tert*-butyl ether				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		61.4	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{12}H_{26}O$		Isobutyl *tert*-octyl ether				
	V		51.6	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{12}H_{26}O$	[153296-45-8]	butyl *tert*-octyl ether				
	V		52.9 ± 0.4	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{12}H_{26}O$	[112-53-8]	1-dodecanol (lauryl alcohol)				
	FUS		38.46	297.53	DSC	[2015CAR/CON]
	FUS		38.4	297.8	DSC	[2014CAR/DOS]
	FUS		39.05	297.15	DSC	[2013WEI/ZHA]
	FUS		42.7	312	DSC	[2008EGO/MAR]
[Note: The melting point reported in [2008EGO/MAR] is considerably higher than melting points reported in synthetic papers and other thermodynamic papers.]						
	FUS	(5–390)	40.31	297.3		[2003VAN/VAN]
	FUS		U 34.3	297.0	DSC	[1992BAB/HWA, 1994BAB/BEN]
	FUS		40.17	300.2		[1993ACR, 1991CHI/BRA]
	FUS		38.42	297.0	DSC	[1978ECK/MUL]
	SUB	(285–294)	130.1 ± 1.2	290	ME	[1965DAV/KYB, 1987STE/MAL]
	SUB		129.3	298		[1965DAV/KYB]
	V		90.8 ± 1.2	298	CGC	[2006NIC/KWE]
	V	(303–348)	85.8	327	GS	[2001KUL/VER2]
	V	(303–348)	90	298	GS	[2001KUL/VER2]
	V	(373–423)	91.7	298	CGC	[1995CHI/HOS]
	V	(353–393)	91.7	298	CGC	[1994KOU/HOS, 2000OVA/KOU]
	V	(303-413)	80.5	358		[1992NGU/KAS]
	V	(383–438)	73.8	398	A	[1987STE/MAL]
	V	(505–550)	57.1	520	A	[1987STE/MAL]
	V		84.7 ± 0.5	343	C	[1979SEV]
	V		91.8 ± 0.6	298	C	[1979SEV]
	V		92.0 ± 0.6	298	C	[1977MAN/SEL]
	V	(297–363)	92.5	312		[1973WIL/ZWO]
	V	(411–487)	67.6	426		[1973WIL/ZWO]
	V	(425–550)	66.7	440	A,EB	[1987STE/MAL, 1970AMB/SPR]
	V	(400–538)	71.5	415	DTA	[1969KEM/KRE]
	V	(297–313)	95.4	305	ME	[1965DAV/KYB]
	V	(303–363)	83.3	333	A,ME	[1987STE/MAL, 1962GEI/QUI2]
	V	(411–487)	67.6	426		[1958ROS/PAP]
$C_{12}H_{26}O$	[10203-28-8]	2-dodecanol				
	V	(293–393)	87.0	308		[1999NGU/BER]
	V	(293–343)	85.0	318	A,ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[10203-30-2]	(*dl*)-3-dodecanol				
	V	(293–343)	78.3	318	A,ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[10203-32-4]	4-dodecanol				
	V	(293–343)	80.6	318	A,ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[10203-33-5]	5-dodecanol				
	V	(293–343)	79.4	318	A,ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[6836-38-0]	6-dodecanol				
	V	(293–343)	81.5	318	A,ME	[1987STE/MAL, 1962GEI/QUI2]
$C_{12}H_{26}O$	[5457-42-1]	di-*tert*-butyl-isopropylmethanol				
	FUS		2.09	314	DSC	[1998VER3]
[Note: The compound likely has an unmeasured solid phase transition.]						
	SUB	(274–308)	59.3 ± 0.8	298	GS	[1998VER3]
	SUB	(274–308)	59.7 ± 0.8	291	GS	[1998VER3]
	V	(317–348)	54.9 ± 0.8	333	GS	[1998VER5]
	V	(317–348)	57.0 ± 0.8	298	GS	[1998VER5]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{26}O_2$		(*dl*)-3,4-diethyl-3,4-dimethoxyhexane				
	V	(302–332)	59.8 ± 1.3	317	GS	[1990DOG/BEC]
$C_{12}H_{26}O_2$	[5675-51-4]	1,12-dodecanediol				
	FUS		54.2	352.9	DSC	[2014BAD/NOW]
	FUS		51.2	352	DSC	[2006UMN/KWE]
	V		135 ± 1.2	298	CGC	[2006UMN/KWE]
	V		119.4 ± 5.4	379		[1993PIA/FER, 2006UMN/KWE]
			130.5 ± 5.7	298		[1993PIA/FER, 2006UMN/KWE]
$C_{12}H_{26}O_3$	[112-73-2]	Diethylene glycol dibutyl ether				
	V	(403–473)	53.8	418		[2005LEE/SU]
	V		73.8 ± 1.7	298	GC	[2000NIC/ORF]
	V	(293–528)	56.6	308	A	[1987STE/MAL]
$C_{12}H_{26}O_3$	[113676-50-9]	3-(nonyloxy)-1,2-propanediol				
	FUS		29.5	297.2	DSC	[1993ACR, 1990VAN/VAN]
$C_{12}H_{26}O_4$	[2167-23-9]	2,2-bis(*tert*-butylperoxy)butane				
	V	(299–323)	77.1	311	A	[1987STE/MAL, 1949DIC/RAL]
$C_{12}H_{26}O_4$	[85187-47-9]	Tripropylene glycol monoisopropyl ether				
	V	(355–530)	56.9	370	A	[1987STE/MAL, 1947STU]
$C_{12}H_{26}O_4$	[4161-33-5]	4,4′-[1,4-butanediyl bis(oxy)]bis-1-butanol				
	FUS		39.37	306.7	DSC	[1991BED/BOO]
$C_{12}H_{26}S$	[112-55-0]	1-dodecanethiol				
	V	(420–581)	62.0	435		[1999DYK/SVO]
$C_{12}H_{26}S$	[6294-31-1]	Dihexylsulfide				
	V	(295–452)	72.4	310		[2004SAW/MOK]
$C_{12}H_{26}S_2$	[33528-63-1]	1,12-dodecanedithiol				
	V	(454–593)	77.8	469	A	[1987STE/MAL, 1943HAL/REI, 1999DYK/SVO]
$C_{12}H_{26}S_2$	[10496-15-8]	Dihexyl disulfide				
	V	(435–601)	64.9	450		[1999DYK/SVO]
$C_{12}H_{27}N$	[124-22-1]	Dodecylamine				
	V		75.3 ± 2.6	298	CGC	[2013GOB/RAT]
	V	(443–545)	61.0	458	A,E	[1987STE/MAL, 1956MAN2]
	V	(356–521)	63.4	371		[1947STU]
$C_{12}H_{27}N$	[143-16-8]	Dihexylamine				
	V		70.8 ± 4.7	298	CGC	[2014THO/GOB]
	V	(408–569)	55.1	423	A	[1987STE/MAL]
	V	(408–569)	71.2 ± 2.1	298	A	[1987STE/MAL, 2014THO/GOB]
$C_{12}H_{27}N$	[1120-24-7]	*N,N*-dimethyldecylamine				
	V	(405–564)	55.2	420	A	[1987STE/MAL]
$C_{12}H_{27}N$	[102-82-9]	Tributylamine				
	V		58.0 ± 1.9	298	CGC	[2014GOB/VIK]
	V		62.7 ± 1.3	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
	V	(432–488)	49.9	447	EB	[2008GUA/YAN]
	V	(298–337)	64.4	313	A	[1987STE/MAL]
	V	(333–487)	48.1	348	A	[1987STE/MAL]
$C_{12}H_{27}N$	[1116-40-1]	Triisobutylamine				
	V		52.3 ± 2.2	298	CGC	[2014GOB/VIK]
	V	(305–452)	54.3	320	A	[1987STE/MAL, 1947STU]
$C_{12}H_{27}NO_2$	[126835-64-1]	3-(nonylamino)-1 ,2-propanediol				
	FUS		53.2	343.2	DSC	[1993ACR, 1990VAN/VAN]
$C_{12}H_{27}O_4P$	[126-73-8]	Tributyl phosphate				
	V	(443–483)	81.3	298	CGC	[2007PAN/ANT2]
	V	(423–463)	78.8	298	CGC	[2007PAN/ANT2]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(453–493)	81.7	298	CGC	[2007PAN/ANT2]
	V	(500–562)	61.4	515	A	[1987STE/MAL]
	V	(423–562)	61.4	493		[1930EVA/DAV]
$C_{12}H_{27}O_4P$	[126-71-6]	Triisobutyl phosphate				
	V	(443–483)	73.0	298	CGC	[2007PAN/ANT2]
	V	(443–473)	76.3	298	CGC	[2007PAN/ANT2]
	V	(411–537)	62.8	426	A	[1987STE/MAL, 1930EVA/DAV]
$C_{12}H_{27}O_4P$	[2528-45-2]	Tri-*sec*-butyl phosphate				
	V	(413–453)	69.6	298	CGC	[2007PAN/ANT2]
	V	(443–483)	70.5	298	CGC	[2007PAN/ANT2]
$C_{12}H_{27}P$	[998-40-3]	Tributyl phosphine				
	V	(353–428)	51.7 ± 0.5	390		[2001BAE]
$C_{12}H_{28}N_2$	[4843-89-4]	1,12-dodecanediamine				
	FUS		67.1	341.8	DSC	[2006KHI/DAH2]
	FUS		67.1	340.5	DSC	[2002DAL/DEL]
	V	(345–369)	81.2	357	GS	[2011POZ/VER]
	V	(345–369)	89.2 ± 0.6	298	GS	[2011POZ/VER]
	V	(313–353)	110.1	328	A	[1987STE/MAL]
$C_{12}H_{28}N_2$	[60678-69-5]	Tetrapropyl hydrazine				
	V	(362–423)	65.2	377	A	[1987STE/MAL, 1943WES/EUC]
$C_{12}H_{30}N_3P$	[2283-11-6]	Tris(diethylamino)phosphine				
	V		60.7 ± 0.4			[1959FOL/MOR]
$C_{13}F_{28}$	[376-03-4]	Perfluorotridecane				
	FUS		27.9	361.7	DSC	[2012HAS/DRA]
	SUB	(313–358)	94.3 ± 0.5	298	GS	[2012HAS/DRA]
	V		70.6 ± 2.4	298	CGC	[2012HAS/DRA]
$C_{13}H_4Cl_6O$	[38178-99-3]	1,2,4,5,7,8-hexachloroxanthene				
	SUB	(353–449)	147	401	T	[1986ROR]
$C_{13}H_4N_4O_{10}$	[185141-40-6]	2,3,5,7-tetranitroxanthone				
	FUS		33.56	514	DSC	[1997IBR/FRA]
$C_{13}H_4N_4O_{10}$	[54849-77-3]	2,4,5,7-tetranitroxanthone				
	FUS		32.2	593.9	DSC	[1997IBR/FRA]
$C_{13}H_5N_3O_7$	[129-79-3]	2,4,7-trinitrofluoren-9-one				
	TRS		2.9	430.2		
	FUS		23.5	449.2	DSC	[1980KRA/PIG]
	TRS		4.18	430.2		
	FUS		23.01	450.2	DSC	[1975CAS/VEC]
$C_{13}H_5N_3O_8$	[185141-39-3]	1,2,7-trinitroxanthone				
	FUS		11.89	554.9	DSC	[1997IBR/FRA]
[Note: Decomposes near melting point temperature.]						
$C_{13}H_5N_3O_8$	[54849-76-2]	2,3,7-trinitroxanthone				
	FUS		24.91	538.9	DSC	[1997IBR/FRA]
$C_{13}H_5N_3O_8$	[131032-92-3]	2,4,7-trinitroxanthone				
	FUS		31.4	477.8	DSC	[1997IBR/FRA]
$C_{13}H_6Cl_6O_2$	[70-30-4]	2,2′-methylene bis(3,4,6-trichlorophenol)				
	FUS		33.26	437.5	DSC	[1991ACR, 1990DON/DRE]
$C_{13}H_6N_2O_6$	[185141-35-9]	1,7-dinitroxanthone				
	FUS		37.23	536.4	DSC	[1997IBR/FRA]
$C_{13}H_6N_2O_6$	[185141-37-1]	2,5-dinitroxanthone				
	FUS		31.37	491.2	DSC	[1997IBR/FRA]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_6N_2O_6$	[185141-38-2]	2,6-dinitroxanthone				
	FUS		26.13	541	DSC	[1997IBR/FRA]
$C_{13}H_6N_2O_6$	[51792-18-8]	2,7-dinitroxanthone				
	FUS		30.59	540	DSC	[1997IBR/FRA]
$C_{12}H_7F_3N_2O_5$	[15457-05-3]	2-nitro-l-(4-nitrophenoxy)-4-(trifluoromethyl)benzene				
	FUS		18.44	364.6	DSC	[1991ACR, 1990DON/DRE]
$C_{12}H_7NO_2$	[46492-08-4]	Benz[*g*]isoquinoline-5,10-dione				
	SUB	(334–381)	108.1 ± 1.6	358	ME	[1998OJA/SUU]
$C_{13}H_7NO_4$	[17607-01-1]	l-nitroxanthone				
	FUS		28.9	477.7	DSC	[1997IBR/FRA]
$C_{13}H_7NO_4$	[20061-59-0]	2-nitroxanthone				
	FUS		26.75	477.9	DSC	[1997IBR/FRA]
$C_{13}H_7NO_4$	[17607-10-2]	3-nitroxanthone				
	FUS		25.37	448	DSC	[1997IBR/FRA]
$C_{13}H_8BR_2$	[16433-88-8]	2,7-dibromofluorene				
	FUS		22.7	438.8	DSC	[2015OLI/SAN]
	FUS		22.08	439.0	DSC	[2012FU/SUU]
	SUB	(361–383)	111.8 ± 0.3	372	ME	[2015OLI/SAN]
	SUB	(361–383)	114.6 ± 0.3	298	ME	[2015OLI/SAN]
	SUB	(382–398)	111.1 ± 0.4	390	Static	[2015OLI/SAN]
	SUB	(382–398)	114.6 ± 0.4	298	Static	[2015OLI/SAN]
	SUB	(328–389)	105.1 ± 1.2	359	ME	[2012FU/SUU]
$C_{13}H_8Br_3NO_2$	[87-10-5]	3,5-dibromo-*N*-(4-bromophenyl)-2-hydroxybenzamide				
	FUS		28.67	497.7	DSC	[1990DON/DRE]
$C_{13}H_8Cl_2N_2O_4$	[50-65-7]	5-chloro-*N*-(2-chloro-4-nitrophenyl)-2-hydroxybenzamide (niclosamide)				
	FUS		40.7	505.4	DSC	[2005YAN/DEV]
	FUS		35.98	502.2	DSC	[2004VAN/MAL]
$C_{13}H_8Cl_2$	[7012-16-0]	2,7-dichlorofluorene				
	FUS		19.44	398.1	DSC	[2012FU/SUU]
	SUB	(318–364)	95.6 ± 0.6	341	ME	[2012FU/SUU]
$C_{13}H_8Cl_2O$	[90-98-2]	4,4′-dichlorobenzophenone				
	TRS	(90–280)	0.04	187		
	TRS	(90–280)	0.05	192		
	FUS	(90–280)	Not reported		AC	[2002DIA/LOP]
	TRS	(10–298)	0.14	188.3		
	TRS	(10–298)	0.39	192.8		
	FUS	(10–298)	Not reported		AC	[1999HUZ/SAI]
	FUS		21.65	338.4	DSC	[1990DON/DRE]
[Note: The entry for [1990DON/DRE] may likely be in error. The authors give the name of the compound as 4,4′-dichlorobenzophenone in the paper; however, they give the CAS Registry number of [85-29-0] which corresponds to 2,4′-dichlorobenzophenone. The observed melting point temperature of 338.4 K is more in line with the melting point temperature of 2,4′-dichlorobenzophenone.]						
	TRS		0.15	186.1		
	TRS		0.25	189.5		
	FUS		Not reported		DSC	[1987ECO/BER, 1999HUZ/SAI]
	FUS		30.12	420	DSC	[1991ACR, 1972PLA]
	SUB	(349–367)	114.5 ± 0.3	358	ME	[2007RIB/AMA2]
	SUB	(349–367)	117.5 ± 0.3	298	ME	[2007RIB/AMA2]
$C_{13}H_8F_2O_3$	[22494-42-4]	5-[2,4-difluorophenyl]salicylic acid (diflunisal)				
	FUS (I)		35.9	486		
	FUS (II)		35.8	485.5		
	FUS (III)		35.9	486.4	DSC	[2002PER/HAN]
	FUS (I)		35.0	483.2		
	FUS (II)		37.3	483.2		

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (III)		36.0	483.2	DSC	[1994MAR/MAR]
	SUB	(349–414)	119.3 ± 0.6	382	GS	[2003PER/KUR]
$C_{13}H_8N_2O_2$	[2538-68-3]	1-phenazinecarboxylic acid				
	FUS		35.44	514.5	DSC	[1997CIO/MEL]
$C_{13}H_8N_2O_5$	[21222-05-9]	3,3′-dinitrobenzophenone				
	SUB		147.4 ± 3.9	298	C	[2011RIB/AMA3]
$C_{13}H_8N_4$	[19139-24-3]	8,8,9,9-tetracyanoquadracyclo[2.2.1.0^{3,5}.2]nonane				
	TRS		4.14	425.8		
	TRS		0.37	462.1		
	FUS		14.47	467.9	DSC	[1984WEI/LEF]
$C_{13}H_8O$	[548-39-0]	Perinaphthenone				
	SUB	(326–348)	97.2 ± 2.5	337	ME	[1998OJA/SUU]
$C_{13}H_8O$	[486-25-9]	9-fluorenone				
	FUS		17.6	356.2	DSC	[2012MON/NOT2]
	FUS	(5–520)	16.36	356.5	AC	[2012CHI/KAZ]
	FUS		14.85	353.3	DSC	[1998VER4]
	FUS		18.12	356.4		[1991ACR, 1988SAB/ELW2]
	SUB	(312–334)	94.7 ± 0.5	298	ME	[2012MON/NOT2]
	SUB	(327–352)	95.1 ± 0.5	298	Static	[2012MON/NOT2]
	SUB		92.2 ± 1.7	298	C	[2012MON/NOT2]
	SUB	(301–343)	88.5 ± 3.7	322	ME	[2010GOL/SUU]
	SUB	(324–348)	91.6 ± 1.8	336	GS	[1998VER4]
	SUB	(324–348)	93.9 ± 1.8	298	GS	[1998VER4]
	SUB		87.6 ± 0.3	319	C	[1988SAB/ELW2]
	SUB		88.4 ± 0.4	298	C	[1988SAB/ELW2]
	V	(328–441)	80.6 ± 0.2	298	Static	[2012MON/NOT2]
	V	(368–668)	79.1 ± 0.6	298	IPM,EB	[2012CHI/KAZ]
	V	(368–668)	77.3 ± 0.5	320	IPM,EB	[2012CHI/KAZ]
	V	(368–668)	74.3 ± 0.3	360	IPM,EB	[2012CHI/KAZ]
	V	(368–668)	71.3 ± 0.3	400	IPM,EB	[2012CHI/KAZ]
	V	(368–668)	68.5 ± 0.3	440	IPM,EB	[2012CHI/KAZ]
	V	(368–668)	65.8 ± 0.2	480	IPM,EB	[2012CHI/KAZ]
	V	(368–668)	63.1 ± 0.2	520	IPM,EB	[2012CHI/KAZ]
	V		60.9	435	Static	[1983SIV/MAR]
	V		59.8	475	Static	[1983SIV/MAR]
	V		59.1	525	Static	[1983SIV/MAR]
	V		58.6	565	Static	[1983SIV/MAR]
	V		57.9	595	Static	[1983SIV/MAR]
$C_{18}H_8OS$	[492-22-8]	Thioxanthone				
	FUS		28.4	486.6	DSC	[2010MON/SOU]
	FUS		35.5	487.9		[1992SAB/ELW]
	SUB	(369–387)	110.9 ± 1.2	378	ME	[2010MON/SOU]
	SUB	(369–387)	113.8 ± 1.2	298	ME	[2010MON/SOU]
	SUB		106.5 ± 1.2	298	C	[2010FRE/GOM3]
	SUB		114.8 ± 0.4	298	C	[1992SAB/ELW]
$C_{13}H_8O_2$	[90-47-1]	Xanthone				
	FUS	(5–521)	27.48	448.8	AC	[2015CHI/KAZ]
	FUS		26.6	448.3	DSC	[2010MON/SOU]
	FUS		26.12	449.7		[1996DOM/HEA, 1988SAB/ELW]
	SUB	(342–362)	103.9 ± 0.6	352	ME	[2010MON/SOU]
	SUB	(342–362)	105.8 ± 0.6	298	ME	[2010MON/SOU]
	SUB		102.7 ± 2.3	298	C	[2009FRE/GOM2]
	SUB		98.57 ± 0.4	298	C	[1988SAB/ELW]
$C_{13}H_8O_2$	[5472-84-4]	3-hydroxy-1*H*-phenalen-1-one				
	SUB	(402–432)	151.5 ± 4.7	417	ME	[1998OJA/SUU]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_9Br$	[1133-80-8]	2-bromofluorene				
	FUS		17.02	387.4	DSC	[2015OLI/SAN]
	FUS		16.02	382.3	DSC	[2012FU/SUU]
	SUB	(327–349)	96.7 ± 0.4	338	ME	[2015OLI/SAN]
	SUB	(327–349)	98.1 ± 0.4	298	ME	[2015OLI/SAN]
	SUB	(351–380)	94.1 ± 0.1	366	Static	[2015OLI/SAN]
	SUB	(351–380)	96.4 ± 0.1	298	Static	[2015OLI/SAN]
	SUB	(303–354)	93.1 ± 1.6	328	ME	[2012FU/SUU]
	V	(374–420)	73.6 ± 0.1	397	Static	[2015OLI/SAN]
	V	(374–420)	81.7 ± 0.1	298	Static	[2015OLI/SAN]
$C_{13}H_9Br$	[1940-57-4]	9-bromofluorene				
	FUS		13.36	373.7	DSC	[2012FU/SUU]
	SUB	(303–344)	98.4 ± 2.5	324	ME	[2012FU/SUU]
$C_{13}H_9Cl$	[6630-65-5]	9-chlorofluorene				
	FUS		14.21	361.2	DSC	[2012FU/SUU]
	SUB	(303–330)	94.0 ± 3.0	317	ME	[2012FU/SUU]
$C_{13}H_9ClO$	[5162-03-8]	2-chlorobenzophenone				
	SUB		100.2 ± 0.4	298	C	[2007RIB/AMA2]
$C_{13}H_9ClO$	[1016-78-0]	3-chlorobenzophenone				
	SUB	(321–339)	108.8 ± 0.4	330	ME	[2007RIB/AMA2]
	SUB	(321–339)	110.4 ± 0.4	298	ME	[2007RIB/AMA2]
$C_{13}H_9ClO$	[134-85-0]	4-chlorobenzophenone				
	SUB	(320–338)	105.4 ± 0.3	329	ME	[2007RIB/AMA2]
	SUB	(320–338)	108.2 ± 0.3	298	ME	[2007RIB/AMA2]
$C_{13}H_9ClO_2$	[85-19-8]	5-chloro-2-hydroxybenzophenone				
	SUB	(293–367)	91.9	308	A	[1987STE/MAL, 1960SCH/HIR]
	V	(367–493)	73.3	382	A,UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_9Cl_3N_2O$	[33422-33-2]	Benzoic acid, 2,4,6-trichlorophenyl hydrazide				
	FUS		32.71	439.7	DSC	[1990DON/DRE]
$C_{13}H_9Cl_3N_2O$	[101-20-2]	3,4,4′-trichlorocarbanilide				
	FUS		41.94	528.2	DSC	[2013LIM/JAN2]
	TRS		6.1	428	DSC	[2010RIB/RIB2]
	FUS		41.94	528.2	DSC	[2009ARA/SOS, 2010CHI/DEG]
	SUB		182.2 ± 1.7	298	C	[2010RIB/RIB2]
$C_{13}H_9F_3N_2O_2$	[4394-00-7]	2-[3-(trifluoromethyl)anilino)nicotinic acid (niflumic acid)				
	FUS (I)		33.1	477.9		
	FUS (II)		37.0	476.8	DSC	[2012BAG/RED]
	FUS		30.54	478	DSC	[2012KAC/RUS]
	FUS		36.5	478	DSC	[2007PER/SUR2, 2009SUR/TER, 2008SUR/SUR, 2010SUR/PER, 2015SUR/SIM]
	FUS		35.7	476.4	DSC	[2004ROM/BUS]
	FUS		32.73	477.2	DSC	[1998BUS/PEN]
	FUS		38.0	476	DSC	[1989PIN/GON]
	SUB	(355–396)	127.8 ± 0.8	376	GS	[2007PER/SUR2, 2009SUR/TER]
	SUB	(355–396)	130.2 ± 0.8	298	GS	[2007PER/SUR2, 2009SUR/TER, 2009SUR/PER, 2008SUR/SUR]
	V		107.5	298	S–F	[2007PER/SUR2]
$C_{13}H_9N$	[260-94-6]	Acridine				
	FUS		20.5	383	DSC	[2016BRU/LAP]
	FUS (VII)		17.0	382.2		

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (monoclinic)		18.7	380.7		
	FUS (orthorhombic)		16.2	362.2	DSC	[2010BRA/GRE]
	FUS	(5–439)	20.68	383.2	AC	[1989STE/CHI]
	FUS		18.58	383.2	DSC	[1975MCE/SAN]
	SUB	(318–349)	97.5 ± 0.4	333	ME	[2016BRU/LAP]
	SUB	(293–323)	96.8 ± 0.5	309	ME	[2016BRU/LAP]
	SUB		97.9 ± 0.7	298	ME	[2016BRU/LAP]
	SUB		86.0	430	TGA	[1998LEB/CHI]
	SUB		89.5 ± 0.2	333	C	[1994SAB/TAB2]
	SUB		91.7 ± 0.4	298	C	[1994SAB/TAB2]
	SUB		94.5	298		[1989STE/CHI]
	SUB	(280–328)	92.6	295		[1987STE/MAL]
	SUB	(303–328)	90.8 ± 1.3	298	TE	[1975DEK/VAN]
	SUB	(303–326)	93.3 ± 0.8	298	TCM	[UR/DEK, 1975DEK/VAN]
	SUB	(281–298)	91.6 ± 2.5	290	LE	[1975MCE/SAN]
	SUB	(306–345)	92.8 ± 1.3	298	ME	[UR/DEK, 1975DEK/VAN]
	SUB		78.7		E	[1946ALB/WIL]
	V	(388–429)	69.2 ± 0.6	410	ITG	[2016BRU/LAP]
	V		72.1		GC	[1996GOV/RUT]
	V	(383–637)	71.5 ± 0.2	400	IPM,EB	[1989STE/CHI]
	V	(383–637)	68.9 ± 0.1	440	IPM,EB	[1989STE/CHI]
	V	(383–637)	66.4 ± 0.1	480	IPM,EB	[1989STE/CHI]
	V	(383–637)	63.8 ± 0.1	520	IPM,EB	[1989STE/CHI]
	V	(383–637)	61.3 ± 0.2	560	IPM,EB	[1989STE/CHI]
	V	(423–621)	62.9	465		[1983SIV/KOB]
	V	(423–621)	62.1	515		[1983SIV/KOB]
	V	(423–621)	61.5	595		[1983SIV/KOB]
	V	(402–619)	66.2	417	A	[1987STE/MAL, 1947STU]
$C_{13}H_9N$	[229-87-8]	3,4-benzoquinoline (phenanthridine)				
	FUS		28.8	379.1	DSC	[2016BRU/LAP]
	TRS	(5–439)	0.02	354		
	FUS	(5–439)	22.83	379.7	AC	[1996DOM/HEA, 1989STE/CHI]
	SUB	(318–349)	103.3 ± 1.0	335	TE	[2016BRU/LAP]
	SUB	(318–349)	104.4 ± 1.1	298	TE	[2016BRU/LAP]
	SUB	(288–323)	100.1 ± 10.1	306	ME	[1998OJA/SUU]
	SUB		98.6	298		[1989STE/CHI]
	SUB	(288–323)	94.6 ± 4	308	ME	[1975MCE/INI, 1987STE/MAL]
	SUB		107.5		ME	[1965DAV/KYB]
	V	(388–453)	70.6 ± 0.7	420	ITG	[2016BRU/LAP]
	V	(383–473)	74.3 ± 0.1	380	IPM	[1989STE/CHI]
	V	(383–473)	71.6 ± 0.1	420	IPM	[1989STE/CHI]
	V	(383–473)	68.9 ± 0.1	460	IPM	[1989STE/CHI]
$C_{13}H_9N$	[85-02-9]	5,6-benzoquinoline				
	SUB	(288–323)	83.1 ± 3.6	308	ME	[1975MCE/INI, 1987STE/MAL]
	SUB		106.3		ME	[1972MIL]
$C_{13}H_9N$	[230-27-3]	7,8-benzoquinoline				
	FUS	(5–439)	14.1	324.1	AC	[1996DOM/HEA, 1989STE/CHI]
	SUB		90.2 ± 2.0	298		[1989STE/CHI]
	SUB	(293–323)	80.8 ± 2.5	308	ME	[1975MCE/INI, 1987STE/MAL]
	SUB		100.4		ME	[1972MIL]
	V		71.4		GC	[1996GOV/RUT]
	V	(373–672)	71.7 ± 0.1	380	IPM,EB	[1989STE/CHI]
	V	(373–672)	69.0 ± 0.1	420	IPM,EB	[1989STE/CHI]
	V	(373–672)	66.5 ± 0.1	460	IPM,EB	[1989STE/CHI]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(373–672)	64.0 ± 0.1	500	IPM,EB	[1989STE/CHI]
	V	(373–672)	61.5 ± 0.3	540	IPM,EB	[1989STE/CHI]
	V	(373–672)	59.0 ± 0.3	580	IPM,EB	[1989STE/CHI]
$C_{13}H_9NO$	[578-95-0]	Acridone				
	FUS		32.5	640	DSC	[2003STO/KRZ]
	SUB		133		DSC	[2003STO/KRZ]
	SUB		136.2 ± 0.5	298	C	[1992SAB/ELW]
$C_{13}H_9NO$	[2157-52-0]	9-fluorenoneoxime				
	SUB	(375–399)	79.6 ± 1.2	387	ME	[2010GOL/SUU]
$C_{13}H_9NO_2$	[2382-08-3]	*N*-methyl-1,8-naphthalimide				
	SUB	(379–398)	107.4 ± 0.8	389	ME	[2000ROU/JIM]
	SUB	(379–398)	109.7 ± 0.8	298	ME	[2000ROU/JIM]
$C_{13}H_9NO_{22}$	[607-57-8]	2-nitrofluorene				
	FUS		24.75	429.9	DSC	[2014OLI/MON]
	SUB	(357–379)	113.6 ± 0.3	368	ME	[2014OLI/MON]
	SUB	(357–379)	116.2 ± 0.3	298	ME	[2014OLI/MON]
	SUB		114.2 ± 2.5	298	C	[2014OLI/MON]
	SUB	(349–384)	114.2 ± 3.0	366	ME	[2008GOL/SUU]
	SUB	(349–384)	116.8 ± 1.4	298	ME	[2008GOL/SUU, 2014OLI/MON]
$C_{13}H_9NO_3$	[2243-80-3]	3-nitrobenzophenone				
	SUB		123.3 ± 2.4	298	C	[2011RIB/AMA3]
	SUB	(349–365)	119.3 ± 0.6	357	ME	[2011RIB/AMA3]
	SUB	(349–365)	121.6 ± 0.6	298	ME	[2011RIB/AMA3]
$C_{13}H_9NO_3$	[1144-74-7]	4-nitrobenzophenone				
	SUB		122.3 ± 2.7	298	C	[2011RIB/AMA3]
	SUB	(360–375)	120.2 ± 0.7	367	ME	[2011RIB/AMA3]
	SUB	(360–375)	122.9 ± 0.7	298	ME	[2011RIB/AMA3]
$C_{13}H_9NO_4$	[75965-74-1]	2-nitro-7-methoxynaphtho[2,1*b*]furan				
	FUS		28.7	460.4	DSC	[2010KES/AUC]
$C_{13}H_{10}$	[86-73-7]	Fluorene				
	FUS		20.3	388	DSC	[2012MON/PIN]
	FUS		19.4	386.7	DSC	[2011RIC/FU]
	FUS		18.55	387.7	DSC	[2008MOG/SEP]
	FUS		19.1	387.7	DSC	[2000LIS/JAM]
	FUS	(196–419)	19.40	387.78	AC	[1995FUJ/FUJ]
	FUS	(12–426)	19.58	387.9		[1996DOM/HEA, 1977FIN/MES]
	FUS		19.65	389.0	DSC	[1980KRA/PIG]
	FUS		19.5		DSC	[1972WAU/GET]
	FUS		19.87	387.0		[1944EIB]
	SUB	(292–320)	88.3 ± 0.2	306	ME	[2012MON/PIN]
	SUB	(292–320)	88.6 ± 0.2	298	ME	[2012MON/PIN]
	SUB	(313–378)	85.8 ± 0.1	346	PGSM	[2012MON/PIN]
	SUB	(313–378)	87.3 ± 0.1	298	PGSM	[2012MON/PIN]
	SUB		87.7 ± 1.1	298	C	[2012MON/PIN]
	SUB	(296–317)	82.6 ± 2.5		ME	[2011RIC/FU]
	SUB	(298–324)	88.1 ± 2.3	311	ME	[2010GOL/SUU]
	SUB	(298–324)	87.1 ± 1.9	311	ME	[2008GOL/SUU3]
	SUB	(289–359)	86.1 ± 0.1	298	GS	[2004VER]
	SUB		87.6	298	CGC–DSC	[1998CHI/HES]
	SUB	(313–453)	84.9	383	GS	[1995NAS/LEN]
	SUB	(323–363)	84.9 ± 0.4	343	GS	[1994RAK/VER2]
	SUB		85.1 ± 0.4	298		[1994RAK/VER2]
	SUB	(318–333)	87.0 ± 1.0	318	PG	[1988SAS/JOS]
	SUB		80.2 ± 0.2	298	C	[1987SAB/ANT]
	SUB	(348–388)	78.9	363	A	[1987STE/MAL]
	SUB	(308–347)	83.2	328	GS	[1986SAT/INO]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(298–343)	92.2	320	T	[1986HAN/ECK]
	SUB	(283–323)	88.4 ± 0.6	303	GS	[1983SON/ZOL]
	SUB	(350–388)	83.1 ± 1.3			[1977FIN/MES, 1975OSB/DOU]
	SUB		81.8	388	B	[1975OSB/DOU]
	SUB	(286–300)	80.3 ± 0.8	293	TE	[1960BUD]
	SUB	(306–323)	82.8	315		[1953BRA/CLE, 1987STE/MAL]
	SUB	(306–322)	82.8			[1953BRA/CLE2, 1960JON]
	V	(387–412)	63.1 ± 0.2	399	PGSM	[2012MON/PIN]
	V	(387–412)	72.1 ± 0.2	298	PGSM	[2012MON/PIN]
	V		72.4 ± 1.7	298	CGC	[2008HAN/NUT]
	V	(373–423)	74.4 ± 1.2	298	GC	[2006HAF/PAR]
	V	(323–473)	66.9	398	GC	[2002LEI/CHA]
	V		72.3	298	CGC	[1998CHI/HES]
	V	(403–453)	72.2	298	CGC	[1995CHI/HOS]
	V	(323–363)	65.7	298	B	[1994RAK/VER2]
	V	(383–427)	63.3	398		[1988SAS/JOS]
	V	(402–568)	54.2	417	A	[1987STE/MAL]
	V	(425–639)	56.5	465		[1982SIV/KOB]
	V	(425–639)	55.5	505		[1982SIV/KOB]
	V	(425–639)	54.3	555		[1982SIV/KOB]
	V	(423–573)	56.6	498	I	[1923MOR/MUR]
$C_{13}H_{10}BrCl_2O_2PS$	[21609-90-5]	*O*-(4-bromo-2,5-dichlorophenyl) *O*-methyl phenylphosphonothioate				
	FUS		31.35	345.6	DSC	[1990DON/DRE]
$C_{13}H_{10}BrN_3O_4$	[192219-62-8]	2-cyano-6-mtro-1(2*H*)-quinolinecarboxylic acid, 2-bromoethyl ester				
	FUS		19.79	419.2	DSC	[2005LIZ/ZAB]
$C_{13}H_{10}ClN_3O_4$	[850836-65-6]	2-cyano-6-mtro-1(2*H*)-quinolinecarboxylic acid, 2-chloroethyl ester				
	FUS		17.17	418.9	DSC	[2005LIZ/ZAB]
$C_{13}H_{10}ClN_3O_4S_2$	[70374-39-9]	(3*E*)-6-chloro-3-[hydroxy(pyridin-2-ylamino)methylene]-2-methyl-2,3-dihydro-4*H*-thieno[2,3-*e*][1,2]thiazin-4-one 1,1-dioxide				
	FUS		54.29	479.8	DSC	[2013KHA/SUB]
	FUS		54.2	481.7	DSC	[2012KHA/ACH]
$C_{13}H_{10}Cl_2S$	[103-17-3]	*p*-chlorobenzyl *p*-chlorophenyl sulfide				
	FUS		32.22	343.8	DSC	[1969PLA/GLA]
$C_{13}H_{10}N_2$	[622-16-2]	*N*,*N*′-diphenylcarbondiimide				
	FUS	(5–330)	18.55	287.4		[1990DOM/HEA, 1984LEB/BYK]
	V	(500–599)	65.6	515	A,I	[1987STE/MAL, 1962JOH/MCE]
$C_{13}H_{10}N_2$	[90-45-9]	9-aminoacridine				
	SUB		115	520	TGA	[1998STO/KRZ]
$C_{13}H_{10}N_2$	[716-79-0]	2-phenylbenzimidazole				
	FUS		22.18	572.2	DSC	[1971KAM/MIT]
	SUB		123.0 ± 1.7	298	C	[2005RIB/RIB]
$C_{13}H_{10}N_2O_2$	[785-80-8]	*N*-phenyl 4-nitrobenzaldehydeimine				
	FUS		24.56	347.2	DSC	[1997VER/MOR]
	SUB		126.0 ± 1.3	298	V+F	[1997VER/MOR]
	V	(359–387)	96.9 ± 1.3	373	GS	[1997VER/MOR]
	V	(359–387)	101.4 ± 1.3	298	GS	[1997VER/MOR]
$C_{13}H_{10}N_2O_3$	[1775-95-7]	2-amino-5-nitrobenzophenone				
	FUS		37.9	440	DSC	[2007DRA/JAN]
$C_{13}H_{10}N_2O_4$	[50-35-1]	Thalidomide				
	FUS (I)		39.97	546.7	DSC	[2007LAR/PER]
	FUS (II)		37.91	550.8	DSC	[2007LAR/PER]
	FUS		36.02	548.2	DSC	[2002GOO/LAI]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{10}N_4$	[7477-73-8]	1,5-diphenyltetrazole				
	SUB	(348–363)	121.5 ± 4.2	355	ME	[1951MCE/RIG, 1970COX/PIL]
$C_{13}H_{10}N_4$	[18039-45-7]	2,5-diphenyltetrazole				
	SUB	(333–353)	119.7 ± 4.2	343	ME	[1951MCE/RIG, 1970COX/PIL]
$C_{13}H_{10}N_4O$	[14031-13-1]	1-phenazinecarboxylic acid hydrazide				
	FUS		27.62	505	DSC	[1997CIO/MEL]
$C_{13}H_{10}O$	[3218-36-8]	4-biphenylcarboxaldehyde				
	FUS		21.09	332	DSC	[2010BAI/VAN]
$C_{13}H_{10}O$	[119-61-9]	Benzophenone				
	FUS	(6–351)	18.47	321.3	AC	[2002HAN/HIK]
	FUS	(5–440)	18.81	321.2	AC	[2002CHI/KNI2]
	FUS	(81–330)	18.19	324.2		[1996DOM/HEA, 1983DEK/VAN]
	FUS		16.9	321.4	C	[1963RAS/NIG]
	FUS		19.2		RC.	[1927STE/JOH]
	FUS		16.5		AC	[1922STR/PAR, 1927STE/JOH]
	FUS		18.2			[1915BRI, 1927STE/JOH]
	FUS		17.8		C	[1899TAM, 1927STE/JOH]
	FUS		18.0		C	[1894BRU, 1927STE/JOH]
	FUS		17.67	321.2		[1889EYK]
	SUB		93.1 ± 2.1	298	GS	[1998VER4]
	SUB		94.7 ± 1.0	321	DM	[1983DEK/VAN]
	SUB		92 ± 0.83	298	C	[1974SAB, 1983DEK/VAN]
	SUB	(295–313)	95.0 ± 0.2	304	ME	[1980COL/JIM2]
	SUB		84.4 ± 1.13	298	C	[1978SAB/LAF2]
	SUB	(297–317)	93.9 ± 0.5	307	TE,ME	[1977DEK/VAN]
	SUB	(293–318)	95.0 ± 1.5	305	TE	[1975DEK/VAN]
	SUB	(294–318)	92.9 ± 0.8	306	ME	[1975VAN/DEK]
	SUB	(278–311)	77.0 ± 2.5	298	ME	[1974ARS]
	SUB	(298–318)	89.96	308	ME	[1987STE/MAL, 1974PRI/POU]
	SUB	(295–304)	94.6 ± 0.8	298	TCM	[1973DEK/OON]
	SUB		93.4 ± 0.3	298	C	[1972MOR3]
	SUB	(293–319)	96.1	306		[1956SER/VOI]
	SUB		91.2			[1950NIT/SEK]
	SUB	(290–315)	78.2 ± 1.2	303		[1938WOL/WEG, 1934WOL/TRI]
	SUB		95 ± 2.5	298	TE	[1932NEU/VOL, 1970COX/PIL, 1960JON]
	SUB	(273–320)	91.2 ± 1.6	298	ME	[1925VOL/KIR]
	V	(433–673)	65.1	448	A	[1987STE/MAL]
	V	(473–579)	62.2	488		[1949DRE/SHR, 1949DRE/MAR, 1984BOU/FRI]
	V	(530–575)	59.0	545		[1904JAQ/WAS, 1984BOU/FRI]
$C_{13}H_{10}O$	[92-83-1]	Xanthene				
	FUS		20.67	374.6	DSC	[2008MON/SAN]
	FUS		15.87	374.3	DSC	[2000MAH/SOL]
	FUS		19.2	373.7		[1991ACR, 1988COO/SED]
	SUB		92 ± 1.1	298	C	[2010FRE/GOM2]
	SUB	(308–326)	93.2 ± 0.9	298	ME	[2008MON/SAN]
	SUB	(318–371)	92.6 ± 1.2	298	Static	[2008MON/SAN]
	SUB	(305–353)	92.5	329	T	[1986ROR]
	SUB		112.1 ± 2.1			[1958CAS/FLE3, 1970COX/PIL]
[Note: The authors refer to the compound as dibenzopyran; however, the melting point temperature corresponds to xanthene.]						
	V	(358–382)	73.4 ± 0.1	298	Static	[2008MON/SAN]
	V	(424–589)	64.5	435	Static	[1984SIV/KOB]
	V	(424–589)	61.1	475	Static	[1984SIV/KOB]
	V	(424–589)	59.2	515	Static	[1984SIV/KOB]
	V	(424–589)	56.7	555	Static	[1984SIV/KOB]
	V	(424–589)	54.4	585	Static	[1984SIV/KOB]
	V	(413–433)	88.7	423	A	[1987STE/MAL, 1958CAS/FLE3]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{10}O$	[1689-64-1]	9-hydroxyfluorene				
	FUS		24.2	428.7	DSC	[2012MON/NOT2]
	SUB	(337–359)	109.0 ± 0.8	298	ME	[2012MON/NOT2]
	SUB	(351–424)	108.3 ± 0.5	298	Static	[2012MON/NOT2]
	SUB	(326–366)	97.4 ± 2.3	346	ME	[2010GOL/SUU]
	V	(410–441)	91.6 ± 0.4	298	Static	[2012MON/NOT2]
	V		50.4	435	Static	[1983SIV/MAR]
	V		49.7	465	Static	[1983SIV/MAR]
	V		48.9	505	Static	[1983SIV/MAR]
$C_{13}H_{10}O_2$	[947-84-2]	2-biphenylcarboxylic acid				
	SUB		121.3 ± 4.3	298	C	[2004MAT/MIR2]
$C_{13}H_{10}O_2$	[92-92-2]	4-biphenylcarboxylic acid				
	FUS		32.1	499.5	DSC	[2012UMN/HAS]
	FUS		32.26	500	DSC	[2010BAI/VAN]
	SUB		127.5 ± 4.1	298	C	[2004MAT/MIR2]
$C_{13}H_{10}O_2$	[93-99-2]	Phenylbenzoate				
	SUB		99.0 ± 0.4	298		[1971CAR/FIN]
	SUB		89.5 ± 4.2			[1971KIP/RAB, 1977PED/RYL]
	SUB		96.2 ± 1.7			[1947STU, 1970COX/PIL]
	V	(379–587)	62.4	394	A	[1987STE/MAL, 1947STU]
$C_{13}H_{10}O_2$	[117-99-7]	(2-hydroxyphenyl)phenylmethanone				
	FUS		18.7	312.3	DSC	[2010DAV/GUE]
	FUS		0.67	308.2	DTA	[1989SAL/ABA]
[Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent.]						
	SUB		97.9 ± 1.9	298	C	[2010DAV/GUE]
$C_{13}H_{10}O_2$	[13020-57-0]	(3-hydroxyphenyl)phenylmethanone				
	FUS		27.4	390.5	DSC	[2010DAV/GUE]
	SUB	(361–378)	129.9 ± 0.7	371	ME	[2010DAV/GUE]
	SUB	(361–378)	131.7 ± 0.8	298	ME	[2010DAV/GUE]
$C_{13}H_{10}O_2$	[1137-42-4]	(4-hydroxyphenyl)phenylmethanone				
	FUS		24.4	407.7	DSC	[2010DAV/GUE]
	SUB	(377–397)	128.6 ± 0.7	384	ME	[2010DAV/GUE]
	SUB	(377–397)	130.3 ± 1.0	298	ME	[2010DAV/GUE]
$C_{13}H_{10}O_2$	[90-46-0]	9-xanthenol				
	SUB	(333–355)	112.9 ± 1.4	347	ME	[2012FRE/GOM]
	SUB	(333–355)	115.2 ± 1.7	298	ME	[2012FRE/GOM]
$C_{13}H_{10}O_3$	[835-11-0]	2,2′-dihydroxybenzophenone				
	FUS	(100–350)	20.07	334.5	DSC	[2005TOM/MIZ]
$C_{13}H_{10}O_3$	[131-56-6]	2,4-dihydroxybenzophenone				
	SUB	(312–353)	134	327	A	[1987STE/MAL]
	V	(418–485)	87.1	433	A,UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_{10}O_3$	[118-55-8]	Phenyl salicylate (salol)				
	FUS (monoclinic)		15.5	302		
	FUS (orthorhombic)		19.5	315	DSC	[2016KOL/TAR]
	FUS		19.5	314.8	AC	[2014LEY/LOS]
	FUS		19.0	314.9	DSC	[2012CHA/LAY]
	FUS		19.2	315.1	DSC	[2010LAZ/RIE]
	FUS		18.4	312.7	DSC	[2006PER/CON]
	FUS (I)		16.5	304.2		
	FUS (II)		18.6	315.2	DSC	[2004RAM/COR]
	FUS		19.16	315		[2002HAN/HIK]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		18.98	314.2	DSC	[1995MUR/PAI]
	SUB	(279–315)	109.1	294	A	[1987STE/MAL]
	SUB		92.0 ± 4.2			[1947STU, 1970COX/PIL]
	V	(423–587)	69.9	438	A,UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_{10}O_3$	[102-09-0]	Diphenyl carbonate				
	FUS		24.30	355.95	DSC	[2008WEI/PEI]
	FUS		23.43	355	DSC	[1971CAR/FIN]
	SUB		107.6 ± 0.5	298	ME	[2014FON/GUS]
	SUB		90 ± 8.4	298	E	[1971CAR/FIN, 1977PED/RYL]
	V	(355–381)	80.9 ± 0.6	298	GS	[2008VER/EME2]
$C_{13}H_{10}O_3$	[58110-42-2]	3-(5-phenylfur-2-yl)acrylic acid				
	SUB	(389–421)	148.7 ± 7.6	405	ME	[2014DIB/RAE]
	SUB	(389–421)	152.6 ± 7.6	298	ME	[2014DIB/RAE]
$C_{13}H_{10}O_4$	[1470-79-7]	2,4,4′-trihydroxybenzophenone				
	FUS		31.3	482.6	DSC	[1999PRI/HAW]
	SUB		139		TGA	[1999PRI/HAW]
	V		107.6		TGA	[1999PRI/HAW]
$C_{13}H_{10}O_5$	[131-55-5]	2,2′,4,4′-tetrahydroxybenzophenone				
	FUS		28.0	472	DSC	[1999PRI/HAW]
	SUB		178.5		B	[1999PRI/HAW]
	SUB	(363–471)	143.4	378	A	[1987STE/MAL]
	V		150.5		TGA	[1999PRI/HAW]
$C_{13}H_{10}S$	[261-31-4]	Thioxanthene				
	FUS		26.8	402.7	S–V	[2009FRE/MON]
	FUS		26.1	401.8		[1991ACR, 1988COO/SED]
	SUB		101.7 ± 1.6	298	C	[2009FRE/MON]
	SUB	(339–402)	98.4 ± 0.2	370	Static	[2009FRE/MON]
	SUB	(339–402)	100.9 ± 0.2	298	Static	[2009FRE/MON]
	V	(383–447)	69.5 ± 0.2	415	Static	[2009FRE/MON]
	V	(383–447)	77.8 ± 2.6	298	Static	[2009FRE/MON]
$C_{13}H_{10}S$	[7372-88-5]	4-methyldibenzothiophene				
	SUB		90.3 ± 0.7	298	C	[2010FRE/GOM]
$C_{13}H_{11}BrO_5$	[111171-29-0]	8-(hydroxymethyl)-6-bromo-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	FUS		28.19	434.1	DSC	[1992HUA/ZHO2]
$C_{13}H_{11}CI$	[90-99-3]	Chlorodiphenylmethane				
	V	(381–450)	70.4	396	A	[1987STE/MAL]
$C_{13}H_{11}CIN_2O_2$	[556836-77-2]	4-chloro-2′-hydroxy-4′-methoxyazobenzene				
	FUS		33.7	390	DSC	[2003PAJ/ROS]
$C_{13}H_{11}ClO_5$	[111171-28-9]	8-(hydroxymethyl)-6-chloro-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	TRS		15.53	418.2		
	FUS		22.47	424	DSC	[1992HUA/ZHO2]
$C_{13}H_{11}CI_2NO_2S$	[1245836-03-6]	*N*-(2,6-dichlorophenyl)-3-methylbenzenesulfonamide				
	FUS (I)		U115.4	441.4	DSC	
	FUS (II)		U107.1	440.5	DSC	[2010SAN/SAR]
[Note: Enthalpies of fusion of both crystalline forms are out of line with other substituted benzenesulfonamides determined by the authors.]						
$C_{13}H_{11}F$	[579-55-5]	Fluorodiphenylmethane				
	V	(288–333)	69.8 ± 0.4	298	GS	[1997SCH/VER]
$C_{13}H_{11}N$	[1013-88-3]	Benzophenone imine				
	V	(308–338)	74.2 ± 1.0	323	GS	[1997VER/MOR]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(308–338)	75.7 ± 1.0	298	GS	[1997VER/MOR]
	V	(373–422)	62.3	388	A	[1987STE/MAL]
$C_{13}H_{11}N$	[538-51-2]	*N*-phenyl-benzaldehyde imine				
	FUS		20.42	329.7	DSC	[1997VER/MOR]
	SUB	(294–326)	97.4 ± 1.2	309	GS	[1997VER/MOR]
	SUB	(294–326)	98.1 ± 1.2	298	GS	[1997VER/MOR]
	SUB		93.7 ± 0.9	298	C	[1986KIR/ACR]
	SUB		85.5 ± 2.1	293	E	[1948COA/SUT]
$C_{13}H_{11}N$	[1484-12-4]	9-methylcarbazole				
	FUS		16.43	361.0	DSC	[2016STA/KEI]
	FUS	(13–388)	17.15	362.5	AC	[1996DOM/HEA, 1988MES/TOD]
	SUB	(313–332)	95.0	322	ME	[1990JIM/ROU]
	SUB	(313–332)	95.5	298	ME	[1990JIM/ROU]
	V		79.5 ± 3.2	298	CGC	[2009LIP/CHI, 2009LIP/HAN]
	V	(373–673)	73.4	400	EB,IPM	[1992STE/CHI]
	V	(373–673)	70.5	440	EB,IPM	[1992STE/CHI]
	V	(373–673)	67.7	480	EB,IPM	[1992STE/CHI]
	V	(373–673)	65.0	520	EB,IPM	[1992STE/CHI]
	V	(373–673)	62.1	560	EB,IPM	[1992STE/CHI]
	V	(373–673)	59.1	600	EB,IPM	[1992STE/CHI]
	V	(373–673)	55.9	640	EB,IPM	[1992STE/CHI]
$C_{13}H_{11}N$	[153-78-6]	2-aminofluorene				
	FUS		23.81	400.9	DSC	[2014OLI/MON]
	SUB	(345–365)	110.3 ± 0.4	355	ME	[2014OLI/MON]
	SUB	(345–365)	112.3 ± 0.4	298	ME	[2014OLI/MON]
	SUB		110.4 ± 1.7	298	C	[2014OLI/MON]
$C_{13}H_{11}N$	[5097-92-7]	*cis*-4-(2-phenylethyenyl)pyridine				
	FUS		9.14	400.3	DSC	[2007LIU/LIA]
$C_{13}H_{11}NO$	[1137-96-8]	*N*-phenylmethylene benzenamine *N*-oxide				
	SUB		115.0 ± 0.8	298	C	[1986KIR/ACR]
$C_{13}H_{11}NO$	[779-84-0]	2-hydroxybenzaldehyde *N*-phenylimine				
	SUB	(288–325)	115.9	303	A	[1987STE/MAL]
	SUB	(348–408)	129.9	378		[1958HOY/PEP]
$C_{13}H_{11}NO$	[1689-73-2]	4-hydroxybenzaldehyde *N*-phenylimine				
	SUB	(348–408)	127.9	363	A	[1987STE/MAL]
	SUB	(288–338)	116	313		[1958HOY/PEP]
$C_{13}H_{11}NO$	[93-98-1]	Benzanilide				
	FUS		31.2	435.0	DSC	[2012UMN/CHI]
	FUS		32.4	436.3	DSC	[2006MAT/MIR2]
	FUS		29.61	436.5	DTA	[1996DOM/HEA, 1992SAB/ELW3]
	SUB		125.4 ± 2.3	298	C	[2006MAT/MIR2]
	SUB	(352–369)	99.2	360.5	A	[1987STE/MAL, 1960AIH2]
$C_{13}H_{11}NO$	[1137-41-3]	4-aminobenzophenone				
	FUS		21.2	395.2	DTA	[2015NAT/USH]
	V		56.4	578.2	DTA,TGA	[2015NAT/USH]
$C_{13}H_{11}NO$	[1207-72-3]	*N*-methylphenothiazine				
	SUB	(337–359)	108.9 ± 0.8	298	ME	[2015OLI/FRE]
	SUB		103.6 ± 2.3	298	C	[2015OLI/FRE]
$C_{13}H_{11}NO_2$	[20357-59-9]	*N*-(2-hydroxyphenylmethylene)benzenamine *N*-oxide				
	SUB		116.5 ± 1.4	298	C	[1986KIR/ACR]
$C_{13}H_{11}NO_2$	[91-40-7]	*N*-phenylanthranilic acid				
	FUS		39.7	458.2	DSC	[2009SUR/TER, 2010SUR/PER, 2015SUR/SIM]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(353–411)	123.0 ± 1.3	382	GS	[2009SUR/TER]
	SUB	(353–411)	126.0 ± 1.3	298	GS	[2009SUR/TER, 2009SUR/PER]
$C_{13}H_{11}NO_5$	[14698-29-4]	1-ethyl-1,4-dihydro-6,7-methylenedioxy-4-oxo-3-quinoline-carboxylic acid (oxolinic acid)				
	FUS		43.59	592.5	DSC	[2004ROM/BUS2]
$C_{13}H_{11}N_3O$	[2440-22-4]	2-(2′-hydroxy-5′-methylphenyl)benzotriazole				
	SUB	(293–333)	125.2	308	A	[1987STE/MAL]
	V	(413–433)	79.1	423	ME	[1984SUR]
	V	(404–435)	70.6	419	A,UV	[1987STE/MAL, 1960SCH/HIR]
$C_{13}H_{11}N_3O_2$	[495-84-1]	Salinazid				
	FUS		45.4	521.2	DSC	[2015BLO/SHA]
	SUB	(388–408)	109.5 ± 2.5	298	GS	[2015BLO/SHA]
$C_{13}H_{11}N_3O_2S$	[211057-65-7]	5-methyl-2-[(4-methyl-2-nitrophenyl)amino]-3-thiophene carbonitrile				
	FUS		24.57	400.2	DSC	[2001HE/GRI]
$C_{13}H_{11}N_3O_2S$	[25612-07-1]	4-amino-*N*-(4-cyanophenyl)benzenesulfonamide				
	FUS		30.9	451.5	DSC	[2011PER/RYZ, 2014PER/KAZ]
	SUB	(420–437)	161.8 ± 2.3	429	GS	[2011PER/RYZ]
	SUB	(420–437)	168.3 ± 2.3	298	GS	[2011PER/RYZ]
	V		147	298	Sub-Fus	[2011PER/RYZ]
$C_{13}H_{11}N_3O_4$	[191979-00-7]	2-cyano-6-nitro-1(2*H*)-quinolmecarboxylic acid, ethyl ester				
	FUS		27.11	391.2	DSC	[2005LIZ/ZAB]
$C_{13}H_{12}$	[643-58-3]	2-methylbiphenyl				
	FUS	(6–372)	13.93	272.3	AC	[2013TKA/DRU]
	V	(301–348)	65.3 ± 0.2	298	GS	[2012NAZ/NES]
	V	(446–530)	68.3 ± 0.1	298	EB	[2005NAZ/NES, 2012NAZ/NES]
$C_{13}H_{12}$	[643-93-6]	3-methylbiphenyl				
	V	(319–366)	68.5 ± 0.3	298	GS	[2012NAZ/NES]
	V	(463–548)	71.9 ± 0.1	298	EB	[2005NAZ/NES, 2012NAZ/NES]
	V	(283–463)	69.6	298		[1993KAS/MOK]
$C_{13}H_{12}$	[644-08-6]	4-methylbiphenyl				
	TRS	(8–372)	2.93	297.5		
	FUS	(8–372)	12.29	320.3	AC	[2010VAR/EFI]
	SUB		82.7 ± 1.3	298		[2011PAS/MIR, 2014PIM/PAS]
	SUB		80.6 + 0.8	298	V+F	[2010VAR/EFI]
	SUB		80.2 ± 1.4	298	C	[1997RIB/MAT4]
	V		67.2	321	C	[2014PIM/PAS]
	V	(323–353)	69.4 ± 0.2	298	GS	[2012NAZ/NES]
	V	(323–353)	69.0 ± 0.7	298	GS	[2010VAR/EFI]
$C_{13}H_{12}$	[101-81-5]	Diphenylmethane				
	FUS	(5–438)	19.01	298.4	AC,DSC	[2005CHI/STE2]
	FUS		14.7	298.2	DSC	[2003LEE/CHO]
	FUS		U 14.9	297.6	DSC	[1992BAB/HWA, 1994BAB/BEN]
	FUS		18.58	298.3	C	[1996DOM/HEA, 1930HUF/PAR2]
	FUS		19.0	299.4		[1889EYK]
	SUB	(273–295)	88.5 ± 0.8	284	GS	[1999VER5]
	SUB	(273–295)	87.6 ± 0.8	298	GS	[1999VER5]
	SUB	(273–298)	71.5	286	EM	[1989SAS/NGU]
	SUB	(276–295)	83.3 ± 3.3	286	HSA	[1986CHI/ANN]
	SUB		82.4 ± 8		V	[1959AIH, 1970COX/PIL]
	SUB	(278–299)	64.0			[1951BRI, 1960JON]
	SUB		72.0 ± 0.8	297		[1938WOL/WEG]
	V		67.6 ± 0.2	298		[2005CHI/STE2, 2008HAN/NUT]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(343–393)	64.7 ± 0.2	298		[2006HAF/PAR]
	V	(330–588)	64.1 ± 0.1	340	IPM,EB	[2005CHI/STE2]
	V	(330–588)	61.0 ± 0.1	380	IPM,EB	[2005CHI/STE2]
	V	(330–588)	57.9 ± 0.1	420	IPM,EB	[2005CHI/STE2]
	V	(330–588)	55.0 ± 0.1	460	IPM,EB	[2005CHI/STE2]
	V	(330–588)	52.0 ± 0.2	500	IPM,EB	[2005CHI/STE2]
	V	(330–588)	48.9 ± 0.3	540	IPM,EB	[2005CHI/STE2]
	V		65.7	298	GC	[2002VAN/PAR]
	V	(303–343)	66.4 ± 0.5	323	GS	[1999VER5]
	V	(303–343)	67.9 ± 0.5	298	GS	[1999VER5]
	V	(353–433)	61.8	368		[1990SOH/OKA]
	V	(303–402)	63.7	363		[1989SAS/NGU]
	V	(295–383)	72.2	310	A	[1987STE/MAL]
	V	(423–583)	56.7	438	A	[1987STE/MAL]
	V	(425–648)	55.8	445		[1981WIE/KOB, 1980WIE/KOB]
	V	(425–648)	49.0	535		[1981WIE/KOB, 1980WIE/KOB]
	V		66.6 ± 0.1	298	C	[1972MOR]
	V	(490–555)	54.2	505		[1915CRA, 1984BOU/FRI]
$C_{13}H_{12}ClNO_2S$	[16964-20-8]	*N*-(4-methylphenyl) 3-chlorobenzenesulfonamide				
	FUS (I)		26.44	366.8		
	FUS (II)		18.16	364.8	DSC	[2010SAN/SAR]
$C_{13}H_{12}ClN_3S$	[281212-47-3]	*N*-2-(3-picolyl)-*N*′-(2-chlorophenyl) thiourea				
	FUS		11.2	400.2	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[457886-93-0]	*N*-2-(4-picolyl)-*N*′-(2-chlorophenyl) thiourea				
	FUS		44.5	441.2	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[457886-96-3]	*N*-2-(5-picolyl)-*N*′-(2-chlorophenyl) thiourea				
	FUS		24.2	460.2	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[457886-94-1]	*N*-2-(6-picolyl)-*N*′-(2-chlorophenyl) thiourea				
	FUS		27.3	449.7	DSC	[2002KEL/SZC]
$C_{13}H_{12}ClN_3S$	[53385-87-8]	*N*-2-(3-picolyl)-*N*′-(4-chlorophenyl) thiourea				
	FUS		16.8	391.2	DSC	[2002SZC/KEL]
$C_{13}H_{12}ClN_3S$	[53385-88-9]	*N*-2-(4-picolyl)-*N*′-(4-chlorophenyl) thiourea				
	FUS		35.2	460.2	DSC	[2002SZC/KEL]
$C_{13}H_{12}ClN_3S$	[53385-89-0]	*N*-2-(5-picolyl)-*N*′-(4-chlorophenyl) thiourea				
	FUS		51.1	473.7	DSC	[2002SZC/KEL]
$C_{13}H_{12}ClN_3S$	[53385-90-3]	*N*-2-(6-picolyl)-*N*′-(4-chlorophenyl) thiourea				
	FUS		40.1	464.2	DSC	[2002SZC/KEL]
$C_{13}H_{12}FNO_2S$	[13198-87-3]	*N*-(3-fluorophenyl) 4-methylbenzenesulfonamide				
	FUS (I)		18.61	385.1		
	FUS (II)		18.83	384.4	DSC	[2010SAN/SAR]
$C_{13}H_{12}F_2N_6O$	[86386-73-4]	2-(2,4-difluorophenyl)-1,3-bis(1*H*-1,2,4-triazol-1-yl)propan-2-ol (fluconazole)				
	FUS		37.76	413.25	DSC	[2015PAT/PAT]
$C_{13}H_{12}N_2O$	[102-07-8]	1,3-diphenylurea				
	FUS		37.7		DSC	[1995STR/ARG]
	FUS		34.62	512.1	DSC	[1996DOM/HEA, 1991ACR, 1987FER/DEL]
	SUB	(445–484)	152 ± 6		TE	[1987FER/DEL]
$C_{13}H_{12}N_2O$	[442-51-3]	7-methoxy-1-methyl-9*H*-pyrido[3,4-*b*]indole (harmine)				
	FUS		48.8	536.6	DSC	[1996BUR/DAG]
$C_{13}H_{12}N_2O_2$	[23042-34-4]	*N*-methyl-*N*-(4-biphenylyl)nitramine				
	FUS		24.0	415.1	DSC	[2002DAS/ZAL]
$C_{13}H_{12}N_2O_2$	[17954-23-3]	2-cyano-1(2*H*)-quinolinecarboxylic acid, ethyl ester				
	FUS		19.88	337	DSC	[2005LIZ/ZAB]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{12}N_2O_5S$	[51803-78-2]	*N*-(4-nitro-2-phenoxyphenyl)methanesulfonamide (nimesulide)				
	FUS		32.7	418.7	DSC	[2011SAN/SAR]
	FUS		47.4	422.2	DSC	[2010DOM/POB]
	FUS		33.38	423	DSC	[2010BAI/VAN]
	FUS		37.3	422.5	DSC	[2007MON/PER]
$C_{13}H_{12}N_4O_2$		4′-nitro-2-methylaminoazobenzene				
	SUB		134.7		GS	[1987SHI/OHK, 1991HOR]
$C_{13}H_{12}N_4O_5S$	[1169390-40-2]	*N*-[3-[[(4-nitrophenyl)sulfonyl]amino]-4-pyridinyl]aceamide				
	FUS		41.4	511.1	DSC	[2014PER/KAZ]
$C_{13}H_{12}O$	[946-80-5]	Benzyl phenyl ether				
	V	(368–560)	58.8	383	A	[1987STE/MAL, 1947STU]
$C_{13}H_{12}O$	[91-01-0]	Diphenylmethanol				
	FUS		23.7	339.4	DSC	[2016DAV/GUE]
	FUS		23.0	338.5	DSC	[1996DOM/HEA, 1974CIN/BER]
	SUB	(302–317)	103.4 ± 1.0	298	ME	[2016DAV/GUE]
	SUB	(301–335)	105.7 ± 0.7	298	GS	[1998VER3]
	SUB	(301–335)	104.5 ± 0.7	318	GS	[1998VER3]
	V	(342–373)	79.4 ± 0.7	358	GS	[1998VER5]
	V	(342–373)	83.0 ± 0.7	298	GS	[1998VER5]
	V	(438–574)	65.4	453	A	[1987STE/MAL]
$C_{13}H_{12}O$	[2876-63-3]	Ethyl 1-naphthyl ketone				
	V	(397–579)	74.1	412	A	[1987STE/MAL, 1947STU]
$C_{13}H_{12}O$	[28994-41-4]	2-(phenylmethyl)phenol (2-benzylphenol)				
	FUS (I)		21.8	326.2		
	FUS (II)		17.0	288.2	DSC	[2004ROM/ROC]
	FUS		23.4	325.7	DSC	[1995MUR/PAI]
$C_{13}H_{12}O$	[101-53-1]	4-benzylphenol				
	SUB	(313–335)	97.4	324	A	[1987STE/MAL, 1960AIH]
$C_{13}H_{12}O$	[2928-43-0]	2-biphenylmethanol				
	FUS		19.7	324	DSC	[2007PIN/BER, 2006DIO/PIN]
	FUS		18.5	326.8	DSC	[2006BAR/DAV]
	SUB		106.0 ± 1.1	315	ME	[2007PIN/BER]
	SUB		107.1 ± 1.1	298	ME	[2007PIN/BER]
	V		85.6 ± 0.6	326	C	[2007PIN/BER]
$C_{13}H_{12}O$	[3597-91-9]	4-biphenylmethanol				
	FUS		25.06	373	DSC	[2010BAI/VAN]
	FUS		27.0	375.5	DSC	[2007PIN/BER, 2006DIO/PIN]
	SUB		105.7 ± 1.8	349	C	[2007PIN/BER]
	SUB		107.3 ± 1.8	298	C	[2007PIN/BER]
$C_{13}H_{12}OS$	[40932-63-6]	3-acetyl-2-methyl-5-phenylthiophene				
	SUB	(321–339)	107.3 ± 0.4	330	ME	[2010RIB/SAN]
	SUB	(321–339)	108.9 ± 0.4	298	ME	[2010RIB/SAN]
$C_{13}H_{12}O_2$	[103-16-2]	4-benzyloxyphenol				
	SUB	(347–369)	128.9 ± 0.6	358	ME	[2011RIB/FER3]
	SUB	(347–369)	131.0 ± 0.9	298	ME	[2011RIB/FER3]
$C_{13}H_{12}O_2$	[620-92-8]	4,4′-methylene bis(phenol)				
	FUS		36.8	436.2	DSC	[2014COS/DAV]
	SUB	(375–399)	140.8 ± 0.6	298	ME	[2014DAV/HER, 2014COS/DAV]
$C_{13}H_{12}S$	[831-91-4]	Phenyl benzyl sulfide				
	SUB		98.4 ± 1.4	298	C	[2006MUL/MOZ]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{13}BrS$	[148681-80-5]	2-propyl-5-(4-bromophenyl)thiophene				
	FUS		15.7	360.4	DSC	[1993BRE/DUN]
$C_{13}H_{13}ClN_2O_2S$	[34392-72-8]	4-amino-*N*-(5-chloro-2-methylphenyl)benzenesulfonamide				
	FUS		36.8	422.7	DSC	[2009PER/TKA, 2014PER/KAZ]
	SUB		130 ± 1	298	GS	[2009PER/TKA]
	V		104	298	S–F	[2009PER/TKA]
$C_{13}H_{13}ClN_2O_2S$	[952915-63-8]	4-amino-*N*-(3-chloro-4-methylphenyl)benzenesulfonamide				
	FUS		45.6	477.6	DSC	[2013PER/RYZ, 2014PER/KAZ]
	SUB		144.6 ± 1.8	298	GS	[2013PER/RYZ]
$C_{13}H_{13}ClN_2O_2S$	[1039862-63-9]	4-amino-(2-chloro-4-methylphenyl)benzene sulfonamide				
	FUS		31.7	428.8	DSC	[2014PER/KAZ]
$C_{13}H_{13}ClN_2O_2S$	[1016780-94-1]	4-amino-(2-chloro-4-methylphenyl)benzene sulfonamide				
	FUS		36.8	422.7	DSC	[2014PER/KAZ]
$C_{13}H_{13}ClN_2O_2S$	[1094869-61-0]	4-amino-(4-chlorophenyl)-2-methylbenzene sulfonamide				
	FUS		35.7	446.5	DSC	[2014PER/KAZ]
$C_{13}H_{13}ClN_2O_2S$	[1094869-83-6]	4-amino-(2-chlorophenyl)-2-methylbenzene sulfonamide				
	FUS		47.3	479.5	DSC	[2014PER/KAZ]
$C_{13}H_{13}ClN_2O_3S$	[1169390-41-3]	4-amino-*N*-(3-chloro-2-methoxyphenyl)benzenesulfonamide				
	FUS		30.7	403.9	DSC	[2013PER/RYZ, 2014PER/KAZ]
	SUB		147.2 ± 1.5	298	GS	[2013PER/RYZ]
$C_{13}H_{13}N$	[552-82-9]	*N*-methyldiphenylamine				
	V	(376–555)	65.2	391	A	[1987STE/MAL, 1947STU]
$C_{13}H_{13}N$	[103-32-2]	*N*-benzylaniline				
	FUS		20.08	313.9	DSC	[1997VER]
	FUS		16.76	305.6		[1991ACR, 1983WEA]
	SUB	(293–312)	103.6 ± 1.6	303	GS	[1997VER]
	SUB		51.3			[1980AIH, 1997VER]
	V	(316–343)	79.6 ± 1.1	330	GS	[1997VER]
	V		79.5			[1980AIH]
[Note: The value reported in [1980AIH] for the enthalpy of sublimation is smaller than the value given for the enthalpy of vaporization. The author of [1980AIH] noted the anomalous behavior.]						
$C_{13}H_{13}NO$	[3449-48-7]	l-keto-1,2,3,4-tetrahydro-6-methylcarbazole				
	FUS		26.9	468.5	DSC	[2006COR/LOP]
$C_{13}H_{13}NO$	[25363-55-7]	2-(4-methoxyphenyl)-5-methylpyridine				
	FUS		20.0	328	DSC	[2000MOR/HAR]
$C_{13}H_{13}NO$	[83-18-1]	2,5-dimethyl-1-phenyl-3-pyrrolecarboxaldehyde				
	SUB	(326–348)	106.0 ± 0.4	337	ME	[2013SAN/RIB3]
	SUB	(326–348)	107.6 ± 0.4	298	ME	[2013SAN/RIB3]
$C_{13}H_{13}NO_2$		(*dl*)-2-(l-naphthoxy)propionamide				
	FUS		37.66	445	DSC	[1976LEC/COL]
$C_{13}H_{13}NO_2$		(*d*)-2-(1-naphthoxy)propionamide				
	FUS		38.07	475	DSC	[1976LEC/COL]
$C_{13}H_{13}N_3$	[102-06-7]	1,3-diphenylguanidine				
	FUS		22.52	421.15	DSC	[2016XU/WAN2]
$C_{13}H_{13}N_3O$	[13256-75-2]	*N*-(4-methylphenyl)-*N′*-(2-pyridyl) urea				
	FUS		204.45	447	DSC	[2002LU/SON, 2004SON/TAN]
[Note: The value is too large. The compound may have decomposed upon melting, or there is a decimal place error in the numerical value.]						
$C_{13}H_{13}N_3OS$	[1187083-48-2]	1-(3-methylsulfanylphenyl)-3-pyridin-2-ylurea				
	FUS (I)		11.1	413.2		

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (II)		26.3	417.2		
	FUS (III)		23.0	413.2		
	FUS (IV)		34.5	426.2	DSC	[2010FUC/QUR]
$C_{13}H_{13}N_3O_4S$	[1169390-42-4]	4-amino-2-methyl-*N*-(2-nitrophenyl)benzene sulfonamide				
	FUS		40.0	451.4	DSC	[2014PER/KAZ]
$C_{13}H_{13}N_3S$	[53385-83-4]	*N*-2-(6-picolyl)-*N′*-phenylthiourea				
	FUS		43.5	460.7	DSC	[2002VAL/HER]
$C_{13}H_{13}OP$	[2129-89-7]	Methyldiphenylphosphine oxide				
	FUS		20.37	385.4	DSC	[2010HU/WAN]
$C_{13}H_{14}$	[2245-38-7]	1,6,7-trimethylnaphthalene				
	V	(323–473)	68.6	398	GC	[2002LEI/CHA]
$C_{13}H_{14}$	[6158-45-8]	1-isopropylnaphthalene				
	V	(402–541)	50.4	417	A	[1987STE/MAL]
$C_{13}H_{14}$	[2027-17-0]	2-isopropylnaphthalene				
	V	(402–541)	60.3	417	A	[1987STE/MAL]
$C_{13}H_{14}$		Isopropylnaphthalene				
	V	(426–454)	52.8	440	EB	[1974MAN/LOG]
[Note: The authors do not specify which isomer; however they report a boiling point temperature of 268.2 °C for the compound.]						
$C_{13}H_{14}ClN_5$	[1449745-82-7]	2-butanolypyridine 6′-chloro-4′-pyrimidinylhydrazone				
	FUS		37	384.4	DSC	[2013PER/KAZ]
$C_{13}H_{14}Cl_2N_2S$	[1343440-37-8]	(3,4-dichlorophenyl)-[3-thia-1-azabicyclo[3.3.1]non-2-ylidene]amine				
	FUS		23.5	370.9	DSC	[2014BLO/OLK]
	SUB	(352–363)	122.2 ± 1.1	357	GS	[2014BLO/OLK]
	SUB	(352–363)	125.0 ± 1.1	298	GS	[2014BLO/OLK]
$C_{13}H_{14}N_2$	[1208-52-2]	2,4′-diaminodiphenylmethane				
	V	(353–403)	111.5	368	A	[1987STE/MAL]
$C_{13}H_{14}N_2$	[101-77-9]	4,4′-diaminodiphenylmethane				
	FUS		19.69	362.7	DSC	[2006KHI/DAH]
	FUS		9.23	363.7		[1996DOM/HEA, 1978MAR/CIO2]
	V	(343–393)	109.3	358	A	[1987STE/MAL]
	V	(486–545)	98.0	501	A	[1987STE/MAL]
	V	(471–545)	100.6	502	A	[1966ZAL/STR]
$C_{13}H_{14}N_2$	[6582-52-1]	2,2′-diaminodiphenylmethane				
	SUB	(343–403)	111.3	358	A	[1987STE/MAL]
$C_{13}H_{14}N_2O_3S$	[19837-74-2]	4-amino-*N*-(4-methoxyphenyl)benzenesulfonamide				
	FUS		38.6	467.4	DSC	[2009PER/TKA, 2014PER/KAZ]
	SUB		124 ± 1	298	GS	[2009PER/TKA]
	V		99.4	298	S–F	[2009PER/TKA]
$C_{13}H_{14}O_3$	[36112-95-5]	3-(1-naphthaleneyloxy)-1,2-propanediol				
	FUS		32.2	370.1	DSC	[2013BRE/GUB]
$C_{13}H_{14}O_3$	[56715-19-6]	(*S*)-3-(1-naphthaleneyloxy)-1,2-propanediol				
	FUS		39.0	383.9	DSC	[2013BRE/GUB]
$C_{13}H_{15}BrN_4O_2$	[56518-41-3]	5-[(4-bromo-3,5-dimethoxyphenyl)methyl]-2,4-pyrimidinediamine				
	FUS		49.9	505.4	DSC	[2007CAI/BET]
$C_{13}H_{15}ClN_2S$	[1583299-21-1]	(4-chlorophenyl)-[3-thia-1-azabicyclo[3.3.1]non-2-ylidene]amine				
	FUS		11.8	411.8	DSC	[2014BLO/OLK]
	SUB	(368–391)	133.1 ± 1.2	379	GS	[2014BLO/OLK]
	SUB	(368–391)	136.7 ± 1.2	298	GS	[2014BLO/OLK]
$C_{13}H_{15}Cl_2N_3$	[66246-88-6]	1-[2-(2,4-dichlorophenyl)pentyl]-1*H*-1,2,4-triazole (penconazole)				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS	(78–364)	33.58	332.4	AC	[2004SUN/SON2]
$C_{13}H_{15}Cl_3O_3$	[120-39-8]	2,4,6-trichlorophenoxyacetic acid, pentyl ester				
	V	(460–573)	78.8	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{13}H_{15}FN_2S$	[1639369-06-4]	4-fluoro-*N*-(3-thia-1-azabicyclo[3.3.1]non-2-ylidiene)aniline				
	FUS		22.4	362.6	DSC	[2014SUR/PRO]
	SUB	(329–357)	90.4 ± 0.8	343	GS	[2014SUR/PRO]
	SUB	(329–357)	92.6 ± 0.8	298	GS	[2014SUR/PRO]
$C_{13}H_{15}F_{13}O$	[1193009-93-6]	1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluoro-8-(pentyloxy)octane				
	TRS		2.09	200.6		
	FUS		26.58	226.4	DSC	[2010ZAG/CON]
$C_{13}H_{15}N$	[6303-88-4]	1,2,3,4-tetrahydro-9-methylcarbazole				
	TRS		0.68	162		
	FUS		14.67	323.8	AC	[1992STE/CHI]
	V	(370–655)	72.5	400	EB,IPM	[1992STE/CHI]
	V	(370–655)	69.6	440	EB,IPM	[1992STE/CHI]
	V	(370–655)	66.7	480	EB,IPM	[1992STE/CHI]
	V	(370–655)	63.8	520	EB,IPM	[1992STE/CHI]
	V	(370–655)	60.7	560	EB,IPM	[1992STE/CHI]
	V	(370–655)	57.4	600	EB,IPM	[1992STE/CHI]
	V	(370–655)	53.8	640	EB,IPM	[1992STE/CHI]
$C_{13}H_{15}NO$	[2889-58-9]	1-(1-isocyanato-1-methylethyl)-4-(1-methylethenylbenzene)				
	V	(298–463)	68.5	308	DTA,T,HSA	[1986ACH/HAS]
$C_{13}H_{15}NO_2$	[24691-76-7]	3,4-dihydro-6-methyl-2*H*-pyran-5-carboxanilide				
	FUS		19.21	381.1	DSC	[1990DON/DRE]
$C_{13}H_{15}NO_2$	[200353-88-4]	Ethyl 4,7-dihydro-4,7-ethano-2*H*-isoindole-1-carboxylate				
	FUS		45.4	401.8	DSC	[2000UNO/ITO]
$C_{13}H_{15}N_3O_2$	[87-47-8]	3-methyl-1-phenyl-1*H*-pyrazol-5-yl dimethylcarbamate				
	FUS		21.39	324.3	DSC	[1990DON/DRE]
$C_{13}H_{15}N_3O_8$	[53848-89-8]	Hexyl 2,4,6-trinitrobenzoate				
	TRS		1.7	264		
	FUS		32.96	402	DSC	[1974WAR/WIL]
$C_{13}H_{16}ClNO$	[6740-88-1]	(*RS*)-2-(2-chlorophenyl)-2-(methylamino)cyclohexanone				
	FUS		26.6	365.7	DSC	[2009TAM/MIR]
$C_{13}H_{16}CI_2O_3$	[67821-07-2]	2,4-dichlorophenoxyacetic acid, isopentyl ester				
	V	(460–573)	75.8	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(460–573)	72.7	516	GC	[1966JEN/SCH]
$C_{13}H_{16}CI_2O_3$	[1917-92-6]	2,4-dichlorophenoxyacetic acid, pentyl ester				
	V	(444–573)	73.6	459	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(460–573)	71.2	508	GC	[1966JEN/SCH]
$C_{13}H_{16}F_3N_3O_4$	[1582-09-8]	2,6-dinitro-*N,N*-dipropyl-4-(trifluoromethyl)benzenamine				
	FUS		22.32	321.4	DSC	[1991ACR, 1990DON/DRE]
$C_{13}H_{16}F_3N_3O_4$	[1861-40-1]	*N*-butyl-*N*-ethyl-2,6-dinitro-4-trifluoromethylainline (benefine)				
	FUS		36.5	338.5	DSC	[1991ACR, 1990DON/DRE]
$C_{13}H_{16}N_2$	[5766-79-0]	α-phenyl-1-piperidinoacetonitrile				
	FUS		19.71	335.2		[1997WEL/VER]
	V	(338–378)	73.2 ± 0.4	298	GS	[1997WEL/VER]
$C_{13}H_{16}N_2O_3$	[37000-08-1]	Hexahydro-1-(3-nitrobenzoyl)-1*H*-azepine (the compound is called hexamethyleneimine *m*-nitrobenzoate in paper)				
	SUB	(310–321)	113	315		[1972ROZ/POL]
	SUB		104.6		ME	[1970POL/PER, 1972ROZ/POL]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{16}N_2O_6$	[159432-36-7]	2,3-dihydro-7-(1-methylethoxy)-3-[2-(nitrooxy)ethyl]-4*H*-1,3-benzoxazin-4-one				
	FUS		32.1	344.7	DSC	[1996FON/ROS]
$C_{13}H_{16}O_4$	[7479-28-9]	2,3,5-trimethyl-1,4-diacetoxybenzene				
	FUS		22.32	381.6	DSC	[2013YAN/YIN]
$C_{13}H_{17}ClN_2O_4$	[138517-06-3]	(4-nitrophenyl)-6-chlorohexyl carbamate				
	FUS		30.31	360.8	DSC	[1993TIE/FRA]
$C_{13}H_{17}N$	[14611-51-9]	(*R*)-*N*-methyl-*N*-(1-phenylpropan-2-yl)prop-1-yn-3-amine ((*R*)-deprenyl)				
	V		64.3 ± 2.2	298	CGC	[2014GOB/VIK]
$C_{13}H_{17}NO$	[3626-62-8]	1-(phenacyl)piperidine				
	V	(381–446)	51.4	396	A	[1987STE/MAL, 1969DAV/MAK, 1968DAV/BAT]
	V	(382–450)	47.2	416	Static	[1969DAV/MAK]
$C_{13}H_{17}NO$	[13290-48-7]	1-(*m*-toluoyl)piperidine				
	V	(373–403)	53.8	388	A	[1987STE/MAL, 1969DAV/MAK, 1968DAV/BAT]
$C_{13}H_{17}NO_3$	[4134-09-2]	(*dl*)-*N*-acetylphenylalanine, ether ester				
	V	(438-528)	82.4	453	A	[1987STE/MAL]
$C_{13}H_{17}NO_3$		Morpholine cinnamate				
	SUB	(298–349)	118.8	313	A	[1987STE/MAL]
$C_{13}H_{17}N_3O_2S$	[1245618-42-1]	1-[5-(4-ethoxyphenylamino)-1,2,4-thiadiazol-3-yl]-2-propanol				
	FUS		27.5	385.1	DSC	[2010PER/VOL]
	SUB	(343–361)	152.8 ± 2.2	298	GS	[2010PER/VOL]
$C_{13}H_{18}$	[941-60-6]	1,1,4,6-tetramethylindane				
	FUS	(12–376)	15.74	273.6	AC	[1991ACR, 1981LEE/FIN]
	V	(313–383)	59.4	328	A,EB,IPM	[1987STE/MAL, 1978OSB/SCO]
	V	(313–469)	60.2	328	A,EB,IPM	[1987STE/MAL, 1978OSB/SCO]
	V	(423–469)	51.9	439	A,EB,IPM	[1987STE/MAL, 1978OSB/SCO]
	V	(313–469)	61.4 ± 0.5	298	EB,IP	[1978OSB/SCO]
$C_{13}H_{18}$	[1078-04-2]	1,1,4,7-tetramethylindane				
	FUS		11.28	245.6	AC	[1991ACR, 1981LEE/FIN]
	V	(313–388)	59.6	328	A,EB,IPM	[1987STE/MAL, 1978OSB/SCO]
	V	(313–469)	60.4	328	A,EB,IPM	[1987STE/MAL, 1978OSB/SCO]
	V	(431–469)	52.0	446	A,EB,IPM	[1987STE/MAL, 1978OSB/SCO]
	V	(313–469)	61.4 ± 0.6	298	EB,IP	[1978OSB/SCO]
$C_{13}H_{18}Br_2N_2O$	[18683-91-5]	*trans*-4-[[(2-amino-3,5-dibromophenyl)methyl]amino]cyclohexanol (ambroxol)				
	FUS (I)		31.46	372.7		
	FUS (II)		36.52	365.6	DSC	[2004CAI/FOP]
$C_{13}H_{18}ClNO$	[7287-36-7]	*N*-(4-chlorophenyl)-2,2-dimethylpentanamide				
	FUS		23.31	360.2	DSC	[1990DON/DRE]
$C_{13}H_{18}ClNO$	[2307-68-8]	*N*-(3-chloro-4-methylphenyl)-2-methylpentanamide				
	FUS		16.35	353.2	DSC	[1990DON/DRE]
$C_{13}H_{18}N_2O_2$	[2164-08-1]	3-cyclohexyl-6,7-dihydro-1*H*-cyclopentapyrimidine-2,4-(3*H*,5*H*)-dione				
	FUS		42.31	584.3	DSC	[1990DON/DRE]
$C_{13}H_{18}N_2O_2S_2$		*N*-allyl-*S*-ethyl-*N*′-tosylisothiourea				
	FUS		28.0	335.2	DSC	[1992REI/HAN]
$C_{13}H_{18}N_2O_3$	[509-86-4]	Heptabarbitone				
	FUS		38.6		DSC	[1982TRE/VAU]
$C_{13}H_{18}N_2O_4$	[87458-01-3]	hexyl *N*-(4-nitrophenyl) carbamate				
	FUS		32.74	376.7	DSC	[1993TIE/FRA]
$C_{13}H_{18}N_4O_3$	[6493-05-6]	1-(5-oxohexyl)-3,7-dimethylxanthine (pentoxifylline)				
	FUS		36.6	376.8	DSC	[2009DOM/POB]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{18}O$	[5195-24-4]	4,4-dimethyl-1-phenyl-3-pentanone				
	V	(405–520)	63.5	420	A	[1987STE/MAL]
$C_{13}H_{18}O$	[103-95-7]	*p*-isopropyl-α-methylhydrocinnamaldehyde				
	V	(283–499)	72.6	298	A	[1987STE/MAL]
$C_{13}H_{18}O$	[1671-75-6]	1-phenyl-1-heptanone				
	V	(373–550)	64.6	388	A	[1987STE/MAL, 1947STU]
$C_{13}H_{18}O_2$	[21643-38-9]	4-hexylbenzoic acid				
	TRS (liq cryst)		17.4	371		
	TRS (liq cryst-to-liq)		2.4	380	DSC	[1985PRI/PUC]
	SUB	(347–363)	123.6 ± 1.0	298	ME	[2004MON/ALM]
$C_{13}H_{18}O_2$	[15687-27-1]	(±) α-methyl-4-(isobutyl)phenylacetic acid (ibuprofen)				
	FUS		29.77	353.3	DSC	[2016ABI/ARM]
[Note: The authors of [2016ABI/ARM] report an enthalpy of fusion of 29.77 J/g, which we have taken to 29.77 kJ/mol.]						
	FUS		24.7	352.2	DSC	[2015NOK/HOM]
	FUS		26.2	348.3	DSC	[2013YUA/CAP]
	FUS		25.69	347.5	DSC	[2013BOU/TEY]
	FUS (I)		25.8	349		
	FUS (II)		7.0	290	DSC	[2013DUD/COR, 2008DUD/DAN]
[Note: The authors of [2008DUD/DAN] report that phase II melts at 290 K, recrystallizes to phase I at 303 K, and then at 348 K phase I melts.]						
	FUS		26.3	349.5	DSC	[2010ELK/ESS]
[Note: The authors of [2010ELK/ESS] report that the enthalpy of fusion decreases significantly with decreasing crystallinity.]						
	FUS		25.3	347.6	DSC	[2010YUA/CAP]
	FUS		28.92	347.4	DSC	[2010MIY/KHA]
	FUS		26.6	352.2	DSC	[2010NOK/AMI]
	FUS		25.99	348.2	DSC	[2010KRU/MAJ]
	FUS		39.5	350.4	DSC	[2010CIL/ALB]
	FUS		26.42	348.3	DSC	[2010HAH/GRA]
	FUS		27.94	347.6	DSC	[2010HON/HUA]
	FUS		31.7	351.7	DSC	[2010BAN/ARC]
	FUS		26.48	350	DSC	[2010BAI/VAN]
	FUS		25.47	348.5	DSC	[2009GAS/CEN]
	FUS		25.0	348.2	DSC	[2007VIP/WAN]
	FUS		25.47	348.6		[2007TUR/UPP]
	FUS		26.6	346.4	DSC	[2006WAS/HOL]
	FUS	(78–400)	26.65	348.0	AC	[2004XU/SUN]
	FUS		25.0	348.4	DSC	[2004XU/SUN]
	FUS		25.5	347.2	DSC	[2002GRA/RAS]
	FUS		25.7	350.9	DSC	[1999LI/ZEL]
	FUS		25.28		DSC	[1998REI/ZIM]
	FUS		23.1	347.2		[1998MUR/BET2]
	FUS		25.7	348.7	DSC	[1996BUR/KOL]
	FUS		26.9	344.0	DSC	[1992DWI/SAT]
	SUB		121	317		[1990ERT/HEA]
$C_{13}H_{18}O_2$	[51146-56-6]	(*S*)-α-methyl-4-(2-methylpropyl)benzeneacetic acid ((*S*)-ibuprofen)				
	FUS		18.3	324.5	DSC	[2013YUA/CAP]
	FUS		19.0	322.8	DSC	[2012MAX/CHI]
	FUS		28.3	326.9	DSC	[2010CIL/ALB]
	FUS	(80–370)	18.05	324.2	AC	[2005XU/SUN]
	FUS		15.4	323.5		[2001LI/GRA]
	FUS		17.9	327.2	DSC	[1999LI/ZEL]
	FUS		18.7	325.5	DSC	[1996BUR/KOL]
	FUS		17.9	323.5	DSC	[1993ROM/RHO]
	FUS		19.9	319.0	DSC	[1992DWI/SAT]
	V	(443–474)	106.0 ± 5.5	298	CGC	[2012MAX/CHI]
$C_{13}H_{18}O_2$	[51146-57-7]	(*R*)-α-methyl-4-(2-methylpropyl)benzeneacetic acid ((*R*)-ibuprofen)				
	FUS		18.1	324.5	DSC	[2013YUA/CAP]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{18}O_3$	[200570-98-5]	3-hexyloxybenzoic acid				
	FUS		22.72	343	DSC	[2001LAI/LEE]
$C_{13}H_{18}O_3$	[1142-39-8]	4-hexyloxybenzoic acid				
	TRS		5.95	342.2	DSC	[2010FON/SAN]
	SUB	(363–379)	130.8 ± 0.4	371	ME	[2010FON/SAN]
	SUB (II)	(363–379)	139.4 ± 0.9	298	ME	[2010FON/SAN]
$C_{13}H_{18}O_5S$	[26225-79-6]	(*dl*)-2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranylmethanesulfonate				
	FUS		26.25	344.1	DSC	[1990DON/DRE]
$C_{13}H_{18}O_7$	[138-52-3]	2-(hydroxymethyl)phenyl-β-(*D*)-glucopyranoside, (*D*)-salicin				
	FUS		55.5	474.7	DSC	[2008PIN/DIO, 2008DIO/PIN]
$C_{13}H_{19}BrO_4$	[929259-37-0]	1-bromo-2-{2-[2-(2-methoxyethoxy)ethoxy]ethoxy}benzene				
	V	(333–370)	96.1 ± 0.4	298	GS	[2006DAB/SPO]
$C_{13}H_{19}NO$	[18859-19-3]	3-phenylpropionic acid, *N,N*-diethylamide				
	V	(353–439)	46.5	368	A	[1987STE/MAL, 1968DAV/BAT]
$C_{13}H_{19}NO$	[141271-51-4]	(4*R*,5*R*)-2,2,3,4-tetramethyl-5-phenyl-1,3-oxazolidine				
	V	(293–301)	61.6 ± 1.8	298		[1998GUD/TOR]
$C_{13}H_{19}NO_2$	[3129-92-8]	Cyclohexyl ammonium benzoate				
	SUB	(289–298)	103.1	293.5	A	[1987STE/MAL, 1965MAR]
$C_{13}H_{19}NO_2$	[13476-55-6]	Hexyl 4-aminobenzoate				
	FUS		33.1	334.2	DSC	[1990NEA/FLY]
$C_{13}H_{19}NO_2$	[7461-26-9]	Hexyl *N*-phenylcarbamate				
	FUS		32.76	328		[1971PRI]
$C_{13}H_{19}NO_2$	[147169-48-0]	(*S*)-*tert*-butyl-1-phenylethylcarbamate				
	FUS		29.73	359.5	DSC	[2011ZEN/YU]
$C_{13}H_{19}NO_4$	[73243-69-3]	*N*-phenylethyl-5-amino-1,5-dideoxy-(*D*)-glucopyranose				
	FUS		39.9	455.8	DSC	[1994BLU/PRA]
$C_{13}H_{19}NO_4S$	[57-66-9]	4-[(dipropylamino)sulfonyl]benzoic acid (probenecid)				
	FUS		33.57	471	DSC	[2009PEN/ESC]
	FUS		40.9	472.1	DSC	[2006WAS/HOL]
$C_{13}H_{19}N_3O_3$	[16577-64-3]	1-hexyl-3-(4-nitrophenyl) urea				
	FUS		25.47	384.4	DSC	[1993TIE/FRA]
$C_{13}H_{19}N_3O_4$	[40487-42-1]	*N*-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine				
	FUS		25.19	327.5	DSC	[1991ACR, 1990DON/DRE]
$C_{13}H_{20}$	[1078-71-3]	Heptylbenzene				
	V	(292–353)	64.2 ± 0.2	298	GS	[2006VER]
	V	(423–527)	54.0	438	A	[1987STE/MAL]
	V		64.9	298		[1971WIL/ZWO]
$C_{13}H_{20}N_2O_2$	[59-46-1]	2-(diethylamino)ethyl 4-aminobenzoate (procaine)				
	FUS		26.07	428.6	DTA	[2013FUL/VLA]
	FUS		26.2	335	DSC	[2010BAI/VAN]
[Note: There is a significant difference noted in the melting point temperatures determined by the two research groups.]						
$C_{13}H_{20}N_2O_2S_2$	[81261-44-1]	*N*-isobutyl-*S*-methyl-*N*′-tosylisothiourea				
	FUS		29.4	363.2	DSC	[1992REI/HAN]
$C_{13}H_{20}N_2O_2S_2$	[120563-91-9]	*N*-*tert*-butyl-*S*-methyl-*N*′-tosylisothiourea				
	FUS		30.4	394.2	DSC	[1992REI/HAN]
$C_{13}H_{20}N_2O_2S_2$	[145198-70-5]	*N*-isopropyl-*S*-ethyl-*N*′-tosylisothiourea				
	FUS		29.1	392.2	DSC	[1992REI/HAN]
$C_{13}H_{20}O$		Butyl cumyl ether				
	V	(278–318)	63.8 ± 0.5	298	GS	[2001VER/HEI2]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{20}O$	[127-41-3]	α-ionone				
	V	(352–523)	62.0	367	A	[1987STE/MAL, 1947STU]
	V	(286–333)	67.5	301	A, ME	[1987STE/MAL, 1957SER/VOI]
$C_{13}H_{20}O$	[14901-07-6]	β-ionone				
	V	(291–334)	69.0	306	A, ME	[1987STE/MAL, 1957SER/VOI]
$C_{13}H_{20}O$	[16647-05-5]	6,10-dimethyl-4,5,9-undecatrien-2-one				
	V	(349–421)	63.6 ± 1.4	385	Static	[1988BAG/GUR]
$C_{13}H_{20}O$	[141-10-6]	6,10-dimethyl-3,5,9-undecatrien-2-one				
	V	(382–457)	67.6 ± 1.1	420	Static	[1988BAG/GUR]
$C_{13}H_{20}O$	[79-77-6]	4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3-buten-2-one				
	V	(373–442)	49.6 ± 1.1	408	Static	[1988BAG/GUR]
$C_{13}H_{20}O_2$	[500-67-4]	1,3-dihydroxy-5-heptylbenzene				
	V	(443–504)	91.6	458	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{13}H_{20}O_2$	[41395-27-1]	1,3-dihydroxy-5-methyl-2-hexylbenzene				
	V	(433–493)	82.8	448	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{13}H_{21}CI_3OS$	[76619-97-1]	2,3,3-trichloro-2-propenethioic acid, *O*-decyl ester				
	V	(483–503)	79.9		GC	[1980PIT/KIS]
$C_{13}H_{21}N$	[29772-98-3]	*N,N*-dimethyl-3-methyl-3-phenyl-2-butaneamine				
	V	(283–330)	59.8 ± 0.7	307	GS	[1998VER/BEC]
	V	(283–330)	60.3 ± 0.7	298	GS	[1998VER/BEC]
$C_{13}H_{21}N$	[29772-82-5]	*N*-methyl-2,3-dimethyl-3-phenyl-2-butaneamine				
	V	(285–332)	71.9 ± 1.1	309	GS	[1998VER/BEC]
	V	(285–332)	72.5 ± 1.1	298	GS	[1998VER/BEC]
$C_{13}H_{21}N$	[585-48-8]	2,6-di-*tert*-butylpyridine				
	V		56.6 ± 1.2	298	C	[2008FRI/ACR]
	V	(293–313)	57.3	298		[1979ARN/CHA]
$C_{13}H_{21}NO$	[90-84-6]	2-(diethylamino)-1-phenyl-1-propanone				
	V	(293–333)	71.6 ± 1.0	298	GS	[1994WEL/VER]
$C_{13}H_{21}NO$	[1502-00-7]	*N,N*-dimethyl-1-adamantylcarboxamide				
	SUB	(303–322)	96.9 ± 0.3	313	ME	[1993ABB/JIM, 1995ABB/JIM]
	SUB	(303–322)	97.5 ± 0.3	298	ME	[1995ABB/JIM]
$C_{13}H_{21}NO_2$	[3246-04-6]	*N*-(3-phenoxy-2-hydroxypropyl)butylamine				
	SUB	(323–348)	133.9	335.5	A	[1987STE/MAL]
$C_{13}H_{22}$	[886027-03-8]	2-allyl-*cis*-decahydronaphthalene				
	V	(296–320)	89.9	308	A	[1987STE/MAL, 1940ZIL]
$C_{13}H_{22}$	[886026-95-5]	2-allyl-*trans*-decahydronaphthalene				
	V	(296–320)	91.7	308	A	[1987STE/MAL, 1940ZIL]
$C_{13}H_{22}$	[5744-03-6]	Dodecahydrofluorene				
	V	(332–525)	55.8	347	A	[1987STE/MAL]
$C_{13}H_{22}$	[707-35-7]	1,3,5-trimethyladamantane				
	TRS		8.19	234.4		
	FUS	(8–356)	2.06	255.6	AC	[2000DRU/VAR2]
	FUS		1.92	255.0	DSC	[1980ARN/SCH]
	TRS		6.3	228.2		
	FUS		1.73	253.6	DSC	[1977CLA/KNO]
	SUB	(300–360)	77.8 ± 1.3	298	BG	[1977STE/WAT]
	V		51.7 ± 0.2	298		[2000DRU/VAR, 2000MEL/PIM, 2000PAS/KOR]
	V	(385–482)	45.4	400		[2000PAS/KOR]
	V		51.0 ± 0.2	313	C	[2000PAS/KOR]
$C_{13}H_{22}Cl_2O_4$	[3843-83-2]	2,2-bis(chloromethyl)-1,3-propanediol dibutyrate				

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(454–572)	43.1	469	A	[1987STE/MAL]
$C_{13}H_{22}N_2O$	[18530-56-8]	*N,N*-dimethyl-*N′*-(octahydro-4,7-methano-1*H*-inden-5-yl)urea				
	FUS		21.74	436.5	DSC	[1990DON/DRE]
$C_{13}H_{22}O_2$	[78548-53-5]	Bornyl propionate				
	V	(337–508)	55.9	352	A	[1987STE/MAL, 1947STU]
$C_{13}H_{22}O_3$	[4427-97-8]	Dicyclohexyl carbonate				
	SUB	(293–313)	66.5 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]
$C_{13}H_{22}O_3$	[49540-31-0]	3,3,7,7-tetramethylnonanedioic anhydride				
	FUS		20.5	396.2		[1974BOR]
$C_{13}H_{22}O_4$	[56277-85-1]	Octyl itaconate				
	FUS		43.7	331.2	DSC	[2016RIC/DEL]
$C_{13}H_{24}$	[26186-02-7]	1-tridecyne				
	V	(439–473)	52.8	454	EB	[1986ELV/KUD]
$C_{13}H_{24}$	[60186-80-3]	5-tridecyne				
	V	(448–488)	52.6	463	EB	[1986ELV/KUD]
$C_{13}H_{24}$	[42371-66-4]	6-tridecyne				
	V	(448–488)	52.2	463	EB	[1986ELV/KUD]
$C_{13}H_{24}Cl_4$	[3922-33-6]	1,1,1,13-tetrachlorotridecane				
	V	(320–370)	97.4	335	A	[1987STE/MAL, 1960MAL/MAL]
$C_{13}H_{24}O$	[42023-59-6]	5-methyl-2-ethyl-2-butyl-4-hexenal				
	V	(323–393)	69.1	338	A	[1987STE/MAL, 1974VOI/SHC]
$C_{13}H_{24}N_2$	[33529-02-1]	1-decylimidazole				
	V	(324–374)	89.6 ± 0.3	298	GS	[2011EME/POR]
$C_{13}H_{24}N_2$	[159255-01-3]	1-nonyl-2-methy limidazole				
	V	(328–374)	87.4 ± 0.3	298	GS	[2011EME/POR2]
$C_{13}H_{24}N_6$		1-(hexamethyleneimine)-3,5-bis(dimethylamino)-(*s*)-triazine				
	FUS		16.32	335.8	DSC	[1989BRA/RYT]
$C_{13}H_{24}O_2$	[4453-82-1]	Dicyclohexylmethanol				
	FUS		20.69	337.5	DSC	[2012YAM/SUZ]
$C_{13}H_{24}O_2$	[2156-96-9]	Decyl acrylate				
	V	(404–536)	59.6	419	A	[1987STE/MAL]
$C_{13}H_{24}O_2$	[1725-04-8]	Oxa-2-cyclotetradecanone (tridecanolactone)				
	TRS		18.16	290.6		
	FUS	(11–330)	9.08	300.4	AC	[1996DOM/HEA, 1981LEB/YEV]
	V	(375–405)	66.6 ± 1.1	390	MM	[1991WIB/WAL]
	V	(375–405)	72.9 ± 1.7	298	MM	[1991WIB/WAL]
	V	(393–443)	67.5	408	A	[1987STE/MAL]
$C_{13}H_{24}O_2$		3,3-dimethylbutanoic acid, 1-methylcyclohexyl ester				
	V	(333–378)	61.4	298	CGC	[1999VER/HEI]
$C_{13}H_{24}O_2$		3,3-dimethylbutanoic acid, 3-methylcyclohexyl ester				
	V	(333–378)	63.5	298	CGC	[1999VER/HEI]
$C_{13}H_{24}O_2$	[1027080-67-6]	3,3-dimethylbutanoic acid, 4-methylcyclohexyl ester				
	V	(333–378)	64.1	298	CGC	[1999VER/HEI]
$C_{13}H_{24}O_2$	[692-86-4]	Ethyl 10-undecenoate				
	V	(404–532)	77.4	419	A	[1987STE/MAL]
$C_{13}H_{24}O_3$	[1898-97-1]	1,4-dioxa-5-cyclopentadecanone				
	V	(403–443)	69.6	418	A, GC	[1987STE/MAL, 1971VOI/SHC]
$C_{13}H_{24}O_3$	[36575-54-9]	1,6-dioxa-7-cyclopentadecanone				
	V	(403–443)	75.7	418	A, GC	[1987STE/MAL, 1971VOI/SHC]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{24}O_3$	[36575-53-8]	1,8-dioxa-9-cyclopentadecanone				
	V	(403–443)	66.5	418	A, GC	[1987STE/MAL, 1971VOI/SHC]
$C_{13}H_{24}O_3$	[18871-17-5]	3-hexyl-4-acetoxytetrahydro-2*H*-pyran				
	V	(383–453)	72.1	398	A	[1987STE/MAL]
$C_{13}H_{24}O_3$	[41780-57-8]	Octyl levulinate				
	V	(413–565)	66.3	428	A	[1987STE/MAL]
	V		65.1	507		[1933COW/SCH]
$C_{13}H_{24}O_4$	[855376-33-9]	Octyl 3-acetoxypropionate				
	V	(420–440)	88.4	430	A	[1987STE/MAL, 1948FEI/FIS]
$C_{13}H_{24}O_4$	[77478-67-2]	Ethylisopentylmalonic acid, ethyl methyl ester				
	V	(392–501)	73.1	407	A	[1987STE/MAL, 1981TOD/BEL]
$C_{13}H_{24}O_4$	[505-52-2]	1,13-tridecanedioic acid (brassylic acid)				
	FUS		51.6	386.2	DSC	[2015TAN/DAI]
	FUS		49.4	386.3	DSC	[2005ROU/TEM]
	FUS		45.3	397.5	DSC	[1991ACR, 1974CIN/BER]
$C_{13}H_{24}O_4$	[6624-57-3]	Dibutyl glutarate				
	V	(318–370)	77.2	344	GS	[2011LIP/KRA]
	V	(318–370)	83.1 ± 0.2	298	GS	[2011LIP/KRA]
$C_{13}H_{24}O_4$	[43052-39-7]	Di-*tert*-butyl glutarate				
	V	(295–325)	71.7 ± 0.5	298	GS	[2011POR/KRA]
$C_{13}H_{24}O_5$	[5456-15-5]	Octyl[1-(methoxycarbonyl)ethyl] carbonate				
	V	(391–566)	70.0	406	A	[1987STE/MAL, 1950REH/DIX2]
$C_{13}H_{24}O_5$	[902261-31-8]	Pentyl[1-(butoxycarbonyl)ethyl] carbonate				
	V	(348–513)	70.1	363	A	[1987STE/MAL, 1950REH/DIX2]
$C_{13}H_{25}N$	[629-60-7]	Tridecanonitrile				
	V	(301–363)	80.3 ± 0.4	298	GS	[2005EME/VER]
	V	(380–566)	69.5	395	A	[1987STE/MAL]
$C_{13}H_{25}NO$	[20299-83-6]	1-octanoyl piperidine				
	V	(373–443)	50.0	388	A	[1987STE/MAL, 1968DAV/BAT]
$C_{13}H_{25}NO_3$	[83871-09-4]	*N*-(1-oxoundecyl)glycine				
	TRS+FUS		26.3	383.3	DSC	[2014RED/KRO]
$C_{13}H_{26}$	[7367-38-6]	5-butyl-4-nonene				
	V	(310–361)	55.8	325	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{13}H_{26}$	[2437-56-1]	1-tridecene				
	V		65.3	298		[1971WIL/ZWO]
	V	(413–509)	53.9	428	A	[1987STE/MAL, 1955CAM/ROS]
$C_{13}H_{26}$	[1795-20-6]	*n*-octylcyclopentane				
	V		65.8	298		[1971WIL/ZWO]
$C_{13}H_{26}$	[5617-41-4]	*n*-heptylcyclohexane				
	FUS		22.22	232.8		[1996DOM/HEA, 1949PAR/MOO2]
	V		64.9	298		[1971WIL/ZWO]
$C_{13}H_{26}$	[295-02-3]	Cyclotridecane				
	TRS		0.9	285.6		
	FUS		7.4	297.6	DSC	[1987DRO/MOL, 1987DRO/EME]
$C_{13}H_{26}O$	[53144-53-9]	5-methyl-2-ethyl-2-butyl-4-hexene-1-ol				
	V	(333–393)	76.9	348	A	[1987STE/MAL, 1974VOI/SHC]
$C_{13}H_{26}O$	[30089-09-9]	1-octylcyclopentanol				
	V	(468–541)	60.9	483	A	[1987STE/MAL]
$C_{13}H_{26}O$	[10486-19-8]	Tridecanal				
	V	(325–349)	73.3 ± 0.4	298	GS	[2003VER/KRA2]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{26}O$	[593-08-8]	2-tridecanone				
	FUS		44.03	301.75	DSC	[2011DOM/PAD]
	V	(335–534)	69.6	350	A	[1987STE/MAL]
	V	(424–510)	61	439	A	[1987STE/MAL]
	V	(400–628)	49.6	541		[1975AMB/ELL]
	V	(335–431)	69.8	348	EB	[1966MEY/WAG]
	V	(360–535)	62.1	375		[1947STU]
$C_{13}H_{26}O$	[462-18-0]	7-tridecanone				
	SUB	(287–293)	103.8	290	ME	[1938UBB]
	V	(395–600)	62.7	410	A	[1987STE/MAL]
	V	(396–623)	49.3	536		[1975AMB/ELL]
$C_{13}H_{26}O$	[64470-31-1]	(*Z*)-7-tridecen-1-ol				
	V	(343–383)	95.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[64437-28-1]	(*E*)-7-tridecen-1-ol				
	V	(343–383)	95.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[52957-10-5]	(*Z*)-9-tridecen-1-ol				
	V	(343–383)	95.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[52957-15-0]	(*E*)-9-tridecen-1-ol				
	V	(343–383)	96.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[34010-24-7]	(*Z*)-11-tridecen-1-ol				
	V	(343–383)	97.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[56195-34-7]	(*E*)-11-tridecen-1-ol				
	V	(343–383)	97.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{13}H_{26}O$	[1604-34-8]	6,10-dimethyl-2-undecanone				
	V	(379–473)	59.3 ± 0.4	426	Static	[1988BAG/GUR]
$C_{13}H_{26}O_2$	[5452-11-9]	4,5-dimethyl-2-octyl-1,3-dioxolane				
	V	(333–453)	72.8	348	A	[1987STE/MAL, 1977VOI/SHC]
$C_{13}H_{26}O_2$	[61732-94-3]	2-octyl-1,3-dioxepane				
	V	(323–373)	61.2	338	A	[1987STE/MAL, 1977VOI/SHC2]
$C_{13}H_{26}O_2$	[1731-81-3]	undecyl acetate				
	V	(289–329)	75.1 ± 0.3	298	GS	[2006KRA/VER]
	V	(333–378)	77.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{13}H_{26}O_2$	[2311-59-3]	isopropyl decanoate				
	V	(363–451)	60.8	378	A	[1987STE/MAL]
$C_{13}H_{26}O_2$	[627-90-7]	ethyl undecanoate				
	FUS		36.16	259.2	AC	[2005VAN/OON]
$C_{13}H_{26}O_2$	[30673-60-0]	propyl decanoate				
	V	(369–459)	62.4	384	A	[1987STE/MAL]
$C_{13}H_{26}O_2$	[111-82-0]	methyl laurate				
	FUS		39.54	305.1	DSC	[2016LIS/FAR]
	FUS		36/5	276.5	DSC	[2013MEK/BEN]
	SUB	(262–273)	121.8 ± 2.1	267	ME	[1965DAV/KYB, 1987STE/MAL]
	V		71.4	350	CE	[2002VAN/VAN]
	V		70.7 ± 0.2	356	CE	[2002VAN/VAN]
	V		76.6 ± 0.4	298	CE	[2002VAN/VAN]
	V	(295–452)	74.9	310		[2001BUR/JOS]
	V	(393–463)	76.8	298	GC	[1997KRO/VEL]
	V	(453–543)	53.3	498	GC	[1993HUS/SAR]
	V	(287–333)	83.6	302	A	[1987STE/MAL]
	V		76.5 ± 0.7	298	C,GC	[1980FUC/PEA]
	V		77.2 ± 0.6	298	C	[1977MAN/SEL]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(407–540)	63.6	422	A	[1987STE/MAL, 1963ROS/SCH]
	V	(336–409)	71.4	351	MG,OM	[1952SCO/MAC]
	V	(373–439)	62.3	388		[1944ALT/TRI]
$C_{13}H_{26}O_2$	[245658-41-7]	3,3-dimethylbutanoic acid, 1,1,3-trimethylbutyl ester				
	V	(333–378)	58.4	298	CGC	[1999VER/HEI]
$C_{13}H_{26}O_2$		2,6-dimethyl-2-heptanol butanoate				
	V	(333–378)	62.5	298	CGC	[1999VER/HEI]
$C_{13}H_{26}O_2$	[245658-44-0]	2-methylpropanoic acid, 1,1,5-trimethylhexyl ester				
	V	(333–378)	60.8	298	CGC	[1999VER/HEI]
$C_{13}H_{26}O_2$	[638-53-9]	tridecanoic acid				
	TRS		8.14	306.1		
	FUS		38.2	314.6	DSC	[2011EGO/MAR]
	TRS		0.06	287.7		
	TRS		8.5	309.1		
	FUS		33.0	314.6	DSC	[2007GBA/NEG]
	TRS	(90–340)	8.72	307.1		
	FUS	(90–340)	33.74	315	AC	[1996DOM/HEA, 1982SCH/VAN2]
	FUS		33.1	314.5		[1975BER/LEO]
	SUB	(271–282)	112.5		TPTD	[2005CHA/ZIE]
	SUB	(282–299)	170		TPTD	[2001CHA/TOB]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						
	V	(409–585)	90.1	424	A	[1987STE/MAL]
	V	(328–350)	100.4 ± 2.0	340	ME,TE	[1982DEK/SCH]
$C_{13}H_{26}O_3$	[42175-34-8]	decyl lactate				
	V	(349–556)	76.6	364	A	[1987STE/MAL, 1950REH/DIX]
$C_{13}H_{26}O_3$	[500787-64-4]	octyl 3-ethoxypropionate				
	V	(398–543)	56.9	413	A	[1987STE/MAL, 1948DIX/REH]
$C_{13}H_{26}O_3$	[14144-56-0]	pentyl 3-pentyloxypropionate				
	V	(378–498)	62.3	393	A	[1987STE/MAL, 1947REH/DIX]
$C_{13}H_{26}O_3$	[40915-96-6]	peroxytridecanoic acid				
	SUB	(293–303)	142.7 ± 5	298	ME	[1980SWA/KWA]
$C_{13}H_{26}O_4$	[2277-23-8]	2,3-dihydroxypropyl decanoate				
	V	(479–524)	111.7	502	DSC	[2014DAM/MAT]
[Note: The authors of [2014DAM/MAT] gave a CAS Registry Number of [26402-22-2] which was not consistent with the IUPAC chemical name in the paper.]						
$C_{13}H_{27}Br$	[765-09-3]	1-bromotridecane				
	V	(425–628)	64.6	440	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}Cl$	[822-13-9]	1-chlorotridecane				
	V		81.3	298		[2006BOL/NER2]
	V	(414–611)	63.0	429	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}F$	[1536-21-6]	1-fluorotridecane				
	V	(387–558)	58.9	402	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}I$	[35599-77-0]	1-iodotridecane				
	V	(440–655)	85.0	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(440–655)	66.1	455	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{13}H_{27}NO$	[27563-67-3]	*N*-methyl dodecanamide				
	SUB	(323–337)	116.6 ± 0.8	330	ME	[1959DAV/JON, 1987STE/MAL]
$C_{13}H_{27}NO_2$	[6280-24-6]	*N*-decyl lactamide				
	V	(413–483)	97.9	428	A	[1987STE/MAL, 1950RAT]
$C_{13}H_{27}NO_2$		*O*-decyl lactamide				
	V	(413–483)	95.0	428	A	[1987STE/MAL]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{28}$	[629-50-5]	tridecane				
	TRS		7.9	254.4		
	FUS		29.62	267.3	DSC	[2005HUA/SIM]
	TRS		7.7	255.2		
	FUS		28.9	267.7	DSC	[2004MON/RAJ]
	TRS		7.66	255		
	FUS		28.49	267.8		[1996DOM/HEA, 1954FIN/GRO2]
	SUB		91.4	298	B	[1972MOR3]
	V		65.3	309	C	[1996VIT/CHA]
	V		64.9	314	C	[1996VIT/CHA]
	V		64.2	324	C	[1996VIT/CHA]
	V		63.3	334	C	[1996VIT/CHA]
	V		62.4	344	C	[1996VIT/CHA]
	V		62.3	349	C	[1996VIT/CHA]
	V		66.7	298		[1994RUZ/MAJ]
	V		65.6	308	C	[1979SUN/SVE]
	V		64.6	318	C	[1979SUN/SVE]
	V		61.7	348	C	[1979SUN/SVE]
	V		66.5 ± 0.2	298	C	[1979SUN/SVE]
	V		66.4 ± 0.3	298	C	[1972MOR2]
	V		66.2	298		[1971WIL/ZWO]
	V	(417–511)	54.5	432	A	[1987STE/MAL, 1955CAM/ROS]
$C_{13}H_{28}$	[1560-97-0]	2-methyldodecane				
	V	(373–503)	52.5	388	A	[1987STE/MAL]
$C_{13}H_{28}$	[17312-57-1]	3-methyldodecane				
	V	(372–504)	51.4	387	A	[1987STE/MAL]
$C_{13}H_{28}$	[6117-97-1]	4-methyldodecane				
	V	(372–501)	52.0	387	A	[1987STE/MAL]
$C_{13}H_{28}$	[17453-93-9]	5-methyldodecane				
	V	(368–500)	50.6	383	A	[1987STE/MAL]
$C_{13}H_{28}$	[17312-77-5]	2,3-dimethylundecane				
	V	(383–500)	53.2	398	A	[1987STE/MAL]
$C_{13}H_{28}$	[17312-80-0]	2,4-dimethylundecane				
	V	(365–490)	52.1	380	A	[1987STE/MAL]
$C_{13}H_{28}$	[62108-27-4]	2,4,6-trimethyldecane				
	V	(352–478)	48.7	367	A	[1987STE/MAL]
$C_{13}H_{28}$	[17312-74-2]	5-ethyl-5-methyldecane				
	V	(273–307)	61.4 ± 1.1	290	HSA	[1995CHI/HES]
	V		60.5 ± 1.1	298		[1995CHI/HES]
	V		61.4 ± 1.8	298	CGC	[1995CHI/HES]
$C_{13}H_{28}$	[17312-63-9]	5-butylnonane				
	V	(298–365)	52.6	313	A,MG	[1987STE/MAL, 1955SCH/WHI]
$C_{13}H_{28}$	[35660-96-9]	Tri-*tert*-butylmethane				
	FUS		3.53	358.2	DSC	[1986FLA/BEC]
	SUB		55.4	298	CGC–DSC	[1998CHI/HES]
	SUB	(265–319)	57.0 ± 0.4	288	T	[1997VER/NOL]
	SUB	(273–306)	57.7 ± 2.8	290	HSA	[1995CHI/HES]
	SUB		61.1 ± 1.3			[1995CHI/HES]
	SUB	(295–330)	7.7 ± 0.1	311		[1986FLA/BEC]
$C_{13}H_{28}N_2O$	[2158-09-0]	1-dodecyl urea				
	TRS		1.3	275.4		
	FUS		46.6	379.2	DSC	[2005HAS/TAJ]
$C_{13}H_{28}O$	[508181-43-9]	Pentyl *tert*-octyl ether				
	V	(278–303)	55.9 ± 0.3	298	GS	[UR/VER, 2002VER, 2003VER/KRA]

TABLE 11. Phase change enthalpies of C_{12} to C_{13} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{28}O$	[112-70-9]	1-tridecanol				
	TRS		20.8	317.4		
	FUS		24.87	318.3	DSC	[2008EGO/MAR]
[Note: Transition temperatures reported in [2008EGO/MAR] are considerably higher than melting points reported in synthetic papers and other thermodynamic papers.]						
	FUS	(5–370)	44.78	304.7		[2003VAN/VAN]
	FUS (β)		45.1	304.6		
	FUS (γ)		41.42	304.5		
	FUS (α)		23.3	303.5		
	TRS (β to γ)		3.6	301.6		
	TRS (β to α)		22.09	305.8		
	TRS (γ to α)		18.74	306.6	AC	[1974MOS/MOU]
	V		94.7 ± 0.4	298	CGC	[2006NIC/KWE]
	V	(307–348)	91.1	327	GS	[2001KUL/VER2]
	V	(307–348)	95.8	298	GS	[2001KUL/VER2]
	V	(313–373)	87.4	343		[1992NGU/KAS]
	V	(431–568)	69.2	446	A	[1987STE/MAL]
$C_{13}H_{28}O$	[42930-67-6]	2,2-dimethyl-3-*tert*-butyl-3-heptanol				
	V	(379–513)	58.3	394		[1973WIL/ZWO]
$C_{13}H_{28}O$		3,3,5,5-tetramethyl-4-ethyl-4-heptanol				
	V	(393–526)	55.9	408		[1973WIL/ZWO]
$C_{13}H_{28}O$		3,3,6-trimethyl-4-isopropyl-4-heptanol				
	V	(381–512)	59.1	396		[1973WIL/ZWO]
$C_{13}H_{28}O$		3,3,6-trimethyl-4-propyl-4-heptanol				
	V	(383–513)	60.1	398		[1973WIL/ZWO]
$C_{12}H_{28}O$	[32579-70-7]	2,2,5-trimethyl-3-*tert*-butyl-3-hexanol				
	V	(377–513)	57.6	392		[1973WIL/ZWO]
$C_{13}H_{28}O$	[41902-42-5]	Tri-*tert*-butylmethanol				
	TRS		7.2	302		
	FUS		3.43	390	DSC	[1996DOM/HEA, 1983MAS/STE]
	SUB (plastic)	(278–318)	56.5 ± 1.0	298	TE	[1983MAS/STE]
	SUB (crys)	(269–300)	63.2 ± 1.2	298	TE	[1983MAS/STE]
$C_{13}H_{28}O_2$	[13362-52-2]	1,13-tridecanediol				
	FUS+TRS		54.4	350.3	DSC	[2014BAD/NOW]
	TRS		28.9	343		
	FUS		17.8	351	DSC	[1999OGA/NAK]
	V		122.0 ± 7.6	372	TE	[1994PIA/FER, 2006UMN/KWE]
	V		132.8 ± 7.8	298	TE	[1994PIA/FER, 2006UMN/KWE]
$C_{13}H_{28}O_2S$	[24724-30-9]	3-(decylthio)-1,2-propanediol				
	TRS		17.3	291.9		
	FUS		17.3	311.9	DSC	[1993ACR, 1990VAN/VAN]
$C_{13}H_{28}O_3$	[10430-97-4]	3-(decyloxy)-1,2-propanediol				
	FUS		38.9	311	DSC	[1993ACR, 1990VAN/VAN]
$C_{13}H_{28}O_4$	[57499-93-1]	Tripropylene glycol, monobutyl ether				
	V	(374–543)	67.1	389	A	[1987STE/MAL, 1947STU]
$C_{13}H_{28}O_5S_2$	[123483-21-6]	(*L*)-arabinose dibutyl dithioacetal				
	FUS		41.5	380.4	DSC	[1989VAN/VAN]
$C_{13}H_{28}S$	[19484-26-5]	1-tridecanethiol				
	V	(433–598)	64.7	448		[1999DYK/SVO]
$C_{13}H_{29}N$	[2869-34-3]	Tridecylamine				
	V	(458–562)	60.1	473	A,E	[1987STE/MAL, 1956MAN2]
$C_{13}H_{29}NO_2$	[1191-45-3]	3-(decylamino)-1,2-propanediol				
	FUS		54.8	346.6	DSC	[1993ACR, 1990VAN/VAN]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}D_{10}$	[1517-22-2]	Phenanthrene-d_{10}				
	TRS		1.77			[1967RIN/DAM]
	SUB	(283–323)	92.2 ± 1.1	303	GS	[1983SON/ZOL]
	V		78.6	298	CGC	[2008ZHA/UNH]
$C_{14}D_{10}$	[1719-06-8]	Anthracene-d_{10}				
	V		78.4	298	CGC	[2008ZHA/UNH]
$C_{14}F_{30}$	[307-62-0]	Perfluorotetradecane				
	FUS		31.5	375.6	DSC	[2012HAS/DRA]
	FUS		31.9	378.0	DSC	[1999VIS/TER]
	TRS		2.1	169.6		
	FUS		2.8	177.4		
	FUS		31.3	377.4	DSC	[1994JIN/BOL]
	TRS	(5–325)	2.00	170.4		
	TRS	(5–325)	3.01	178.6	AC	[1994LEB/BYK]
	SUB	(313–358)	102.4 ± 1.0	298	GS	[2012HAS/DRA]
	V		77.8 ± 2.4	298	CGC	[2012HAS/DRA]
$C_{14}H_5F_{25}$	[89109-68-2]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorotetradecane				
	FUS		20.4	344	DSC	[1988HOP/PUG]
	FUS		20.8	344.2	DSC	[1986RUS/RAB]
$C_{14}H_6Cl_2N_2O_4$	[66121-41-3]	1-amino-4-nitro-5,8-dichloroanthraquinone				
	SUB		158.2			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_6N_2O_6$	[66121-37-7]	1,4-dinitroanthraquinone				
	SUB		131			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_6N_6O_{12}$	[20062-22-0]	1,2-bis(2,4,6-trinitrophenyl)ethylene				
	SUB	(434–479)	179.9	449	LE	[1987STE/MAL, 1969ROS/DIC]
	SUB		180.3			[1968MAR/ARM, 1966ROS]
$C_{14}H_7ClF_3NO_5$	[50594-66-6]	5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoic acid				
	FUS		37.67	436.6	DSC	[1990DON/DRE]
$C_{14}H_7ClO_2$	[82-44-0]	1-chloroanthraquinone				
	FUS		29.24	435.2	DSC	[2013YOU/GAO]
$C_{14}H_7ClO_2$	[131-09-9]	2-chloroanthraquinone				
	FUS		39.0	483	DTA	[1996DOM/HEA, 1992SAB/ELW3]
$C_{14}H_7NO_4$	[82-34-8]	1-nitroanthraquinone				
	SUB	(407–440)	139.7	422	A	[1987STE/MAL]
	SUB		108.9 ± 2.1	396	C	[1982MUR/SAK]
	SUB		137.9 ± 1.7		TE,ME	[1970KOJ]
	SUB		115.5			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_8$	[187-78-0]	Paracylene				
	SUB	(324–354)	82.0	342	ME	[2002DIO/KIY]
	SUB	(324–354)	83.2	298	ME	[2002DIO/KIY]
$C_{14}H_8Br_2$	[3278-82-8]	1,5-dibromoanthracene				
	FUS		32.1	482.4	DSC	[2010GOL/KUL]
	SUB	(358–408)	116.7 ± 3.0		ME	[2008GOL/SUU2]
$C_{14}H_8Br_2$	[15810-15-8]	9,10-dibromophenanthrene				
	FUS		16.33	451.2	DSC	[2012FU/SUU]
	SUB	(353–409)	114.3 ± 1.5	381	ME	[2012FU/SUU]
$C_{14}H_8Br_2$	[523-27-3]	9,10-dibromoanthracene				
	FUS		28.7	497.8	DSC	[2015SOL/VAR]
	FUS		27.0	497.9	DSC	[2010GOL/KUL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(359–392)	110.1	375	ME	[2010FU/RIC]
	SUB	(359–391)	114.2 ± 2.8		ME	[2008GOL/SUU2]
$C_{14}H_8Br_6O_2$	[37853-59-1]	1,2-bis(2,4,6-tribromophenoxy)ethane				
	FUS		36.8	500.4	DSC	[2014KUR/TAK]
	SUB	(373–423)	167	398	GS	[2014KUR/TAK]
$C_{14}H_8ClNO_2$	[42899-83-2]	3-chloro-*N*-phenylphthalimide				
	FUS		29.14	466.05	DSC	[2016DU/XU]
$C_{14}H_8Cl_2$	[605-48-1]	9,10-dichloroanthracene				
	FUS		25.1	486.5	DSC	[2015SOL/VAR]
	FUS		27.4	485.0	DSC	[2010GOL/KUL]
	SUB	(316–376)	113.9 ± 4.5		ME	[2008GOL/SUU2]
$C_{14}H_8Cl_2N_2O_2$	[81-42-5]	1,4-diamino-2,3-dichloro-9,10-anthraquinone (disperse violet 28)				
	SUB	(373–493)	64.9	443	GC	[2002SAW/SHI]
[Note: The above value seems abnormally small for an enthalpy of sublimation for a compound of this size.]						
$C_{14}H_8C1_4$	[3424-82-6]	1-chloro-2-(2,2-dichloro-1-(4-chlorophenylethenyl)benzene				
	FUS		23.84	349.8	DSC	[1990DON/DRE]
$C_{14}H_8C1_4$	[72-55-9]	1,1-dichloro-2,2-bis(4-chlorophenyl)ethylene (*p*,*p*′-DDE)				
	FUS		23.55	360.4	DSC	[1990DON/DRE]
	SUB		74.2			[1995RUL/RAK, 1989LUB/JAN]
	V	(343–453)	87.2	398	GC	[1990HIN/BID2]
$C_{14}H_8Cl_6$	[3563-45-9]	1,1,1-trichloro-2-chloro-2,2-bis(4-chlorophenyl)ethane				
	SUB		89.4			[1995RUL/RAK, 1989LUB/JAN]
$C_{14}H_8O_2$	[635-12-1]	1,4-anthraquinone				
	FUS		31.4	500.8	DSC	[2013DAV/JIM]
	SUB		134.5 ± 3.8	298	ME	[2013DAV/JIM]
$C_{14}H_8O_2$	[84-65-1]	9,10-anthraquinone				
	FUS		36.3	556.8	DSC	[2010MON/SOU]
	FUS		33.2	558.7	DSC	[2010GOL/KUL]
	FUS		34.26	557.53	DTA	[1992SAB/ELW3]
	FUS		34.8	556.9	DSC	[1990DON/DRE]
	FUS		32.57	558	C	[1996DOM/HEA, 1917HIL/DUS]
	SUB	(377–395)	112.8 ± 1.6	386	ME	[2010MON/SOU]
	SUB	(377–395)	116.0 ± 1.6	298	ME	[2010MON/SOU]
	SUB	(346–400)	115.0 ± 5.0	373	ME	[2010GOL/SUU]
	SUB		111.3		GS	[1987SHI/OHK, 1991HOR]
	SUB	(373–453)	98.3	413	GS	[1977NIS/ISH, 1978NIS/ISH]
	SUB		113.0 ± 0.8	298	C	[1973BAR/MAL]
	SUB		107.5 ± 0.8	434	ME	[1973BAR/MAL]
	SUB	(397–471)	107.9 ± 0.8		ME	[1973BAR/MAL]
	SUB	(355–356)	U 105.9		TGA	[1971ASH]
	SUB	(470–590)	127.0 ± 3.0		C	[1971BEE/LIN]
	SUB		136.6 ± 3	298	C	[1971BEE/LIN]
	SUB		116.1 ± 1.7		ME,TE	[1970KOJ]
	SUB		115.1		ME	[1968TSU/KOJ, 1988BAU/PER]
	SUB	(343–403)	126.4	373	ME	[1958HOY/PEP, 1987STE/MAL]
	SUB		112.1	298		[1956MAG, 1970COX/PIL]
	SUB		110.9	298		[1956BEY/NIC]
	SUB		107.9	298		[1954JOR]
	SUB		104.6	367	ME	[1952INO/SHI]
	SUB		108	298	ME	[1952INO/SHI]
	V	(559–660)	64.3	574	A	[1987STE/MAL]
$C_{14}H_8O_2$	[84-11-7]	9,10-phenanthraquinone				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		108.1	289	C	[1989RIB/RIB]
	SUB		132	383		[1956MAG, 1970COX/PIL]
$C_{14}H_8O_3$	[129-43-1]	1-hydroxy-9,10-anthraquinone				
	SUB		113.4		GS	[1987SHI/OHK, 1991HOR]
	SUB	(333–383)	120.6	358		[1958HOY/PEP, 1987STE/MAL]
	SUB		101.3 ± 0.4	407	HSA	[1956BEY/NIC]
$C_{14}H_8O_3$	[605-32-3]	2-hydroxy-9,10-anthraquinone				
	SUB		136.8		GS	[1987SHI/OHK, 1991HOR]
	SUB	(393–453)	153.1	408	A	[1987STE/MAL]
$C_{14}H_8O_3$	[74553-57-4]	9-hydroxy-1,4-anthraquinone				
	SUB	(377–394)	108.2 ± 2.2	386	ME	[2002JIM/ROU]
	SUB	(377–394)	109.5 ± 2.2	298	ME	[2002JIM/ROU]
$C_{14}H_8O_3$	[6050-13-1]	2,2′-biphenyldicarboxylic anhydride				
	SUB		120.7 ± 4.0	298	C	[2005MAT/MIR2]
	SUB	(433–490)	91.4	448	A	[1987STE/MAL]
$C_{14}H_8O_4$	[72-48-0]	1,2-dihydroxyanthraquinone				
	SUB	(368–498)	123.8	383	A	[1987STE/MAL]
	SUB		121.9 ± 0.5	469	C	[1973MAL/BAR]
	SUB	(434–505)	121.5 ± 0.4	469	ME	[1973MAL/BAR]
	SUB		123.9	403	ME	[1958HOY/PEP]
$C_{14}H_8O_4$	[81-64-1]	1,4-dihydroxy-9,10-anthraquinone (quinizarin)				
	FUS		19.41	473.2	DSC	[2015CHE/SVA]
	SUB	(363–393)	115.3	363	TGA, GS	[2003HIN/RAF]
	SUB		114.6		GS	[1987SHI/OHK, 1991HOR]
	SUB	(353–373)	102.4 ± 4.4	363		[1984KRI]
	SUB	(473–553)	89.1	513	GS	[1977NIS/ISH, 1978NIS/ISH]
	SUB	(394–463)	121.9 ± 0.8	429	ME	[1973MAL/BAR]
	SUB		121.1 ± 4	429	C	[1973MAL/BAR]
	SUB	(324–351)	U 94.5	338	TGA	[1971ASH]
	SUB		123.5	376		[1958HOY/PEP, 1987STE/MAL]
	SUB		103.5 ± 1.3	409	HSA	[1956BEY/NIC]
	V	(469–633)	74.0	484	A	[1987STE/MAL, 1947STU]
$C_{14}H_8O_4$	[117-12-4]	1,5-dihydroxyanthraquinone				
	SUB		123.2 ± 7		ME	[1973BAR/MAL]
	SUB	(363–433)	126.8	398	ME	[1958HOY/PEP, 1987STE/MAL]
	SUB		111.3	456	HSA	[1956BEY/NIC]
	SUB		117.6	298	HSA	[1956BEY/NIC]
$C_{14}H_8O_4$	[117-10-2]	1,8-dihydroxyanthraquinone				
	TRS		4.96	437.16		
	FUS		20.06	471.2	DSC	[2015CHE/KHA]
	SUB		116.8		ME	[1973BAR/MAL]
	SUB	(333–403)	123	368	ME	[1958HOY/PEP, 1987STE/MAL]
	SUB	(335–356)	U 96.5	345	TGA	[1971ASH]
	SUB		105.8 ± 8	404	HSA	[1956BEY/NIC]
	SUB		109.6 ± 8	298	HSA	[1956BEY/NIC]
$C_{14}H_8O_4$	[84-60-6]	2,6-dihydroxyanthraquinone				
	SUB	(463–533)	173.8	498		[1958HOY/PEP, 1987STE/MAL]
$C_{14}H_8O_6$	[81-60-7]	1,4,5,8-tetrahydroxyanthraquinone				
	SUB	(403–473)	151.6	438		[1958HOY/PEP, 1987STE/MAL]
$C_{14}H_9Br$	[7321-27-9]	2-bromoanthracene				
	FUS		26.23	493.6	DSC	[2012FU/SUU]
	SUB	(334–390)	101.3 ± 0.6	362	ME	[2012FU/SUU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_9Br$	[1564-64-3]	9-bromoanthracene				
	FUS		19.2	375.9	DSC	[2010GOL/KUL]
	SUB	(315–368)	100.5 ± 1.8		ME	[2008GOL/SUU2]
$C_{14}H_9Br$	[573-17-1]	9-bromophenanthrene				
	FUS		14.91	335.2	DSC	[2012FU/SUU]
	SUB	(304–344)	97.9 ± 4.1	324	ME	[2012FU/SUU]
$C_{14}H_9CI$	[4985-70-0]	1-chloroanthracene				
	FUS		14.14	355.2	DSC	[1970GUA/SAR]
$C_{14}H_9Cl$	[17135-78-3]	2-chloroanthracene				
	FUS		27.2	495.7	DSC	[2010GOL/KUL]
	SUB	(331–371)	99.3 ± 2.7		ME	[2008RIB/SCH]
$C_{14}H_9Cl$	[716-53-0]	9-chloroanthracene				
	FUS		22.0	376.6	DSC	[2015SOL/VAR]
	FUS		18.66	379.2	DSC	[1970GUA/SAR]
	SUB		106.6 ± 0.9			[1985KIS/VEI]
$C_{14}H_9Cl$	[947-72-8]	9-chlorophenanthrene				
	FUS		14.99	320.1	DSC	[2012FU/SUU]
	SUB	(301–318)	88.5 ± 1.7	310	ME	[2012FU/SUU]
$C_{14}H_9ClF_2N_2O_2$	[35367-38-5]	*N*-[[(4-chlorophenylamino]carbonyl]-2,6-difluorobenzamide				
	FUS		55.99	499.5	DSC	[1990DON/DRE]
$C_{14}H_9ClF_2N_2O_2$	[154598-52-4]	(*S*)-6-chloro-4-(2-cyclopropylethynyl)-1,4-dihydro-4-(trifluoromethyl)-2*H*-3,1-benzoxazin-2-one (efavirenz)				
	FUS		15.31	410.0	DSC	[2015NUR/BOO]
	FUS		18.20	414.6	DSC	[2012CHA/ARO]
$C_{14}H_9ClN_2O_4$	[12217-79-7]	1,5-diaminochloro-4,8-dihydroxyanthraquinone (C.I. disperse blue 56)				
	SUB	(483–533)	93.3	498	A	[1987STE/MAL]
$C_{14}H_9ClO_3$	[4889-73-0]	2-benzoyl-3-chlorobenzoic acid				
	FUS		35.50	506.3	DSC	[2013YOU/GAO]
$C_{14}H_9Cl_2NO_3$	[42576-02-3]	Methyl 5-(2,4-dichlorophenoxy)-2-nitrobenzoate				
	FUS		26.31	358.3	DSC	[1991ACR, 1990DON/DRE]
$C_{14}H_9Cl_3$	[1022-22-6]	1-chloro-2,2-bis(4-chlorophenyl)ethylene				
	FUS		25.52	337.9	DSC	[1969PLA/GLA]
$C_{14}H_9C1_3N_2OS$	[68786-66-3]	5-(chloro-6-(2,3-dichlorophenoxy)-2-(methylthio)-1*H*-benzimidazole (triclabendazole)				
	FUS (II)		37.8	450.2		
	FUS (II)		30.9	439.2	DSC	[2012TOT/BHO]
$C_{14}H_9Cl_5$	[50-29-3]	1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane (*p*,*p*′-DDT)				
	FUS		26.28	382.1	DSC	[1991ACR, 1990DON/DRE]
	SUB	(273–313)	120.2 ± 1.0	293	GS	[1994WAN/SHU]
	SUB	(323–363)	115	338	A	[1987STE/MAL]
	SUB	(293–353)	110	304	GS	[1980ROT]
	SUB	(293–313)	117.8	303	GS	[1972SPE/CLI]
	SUB	(323–363)	117.5	338	GS	[1956DIC, 1960JON]
	SUB	(313–363)	84	338	GS	[1949KUH/MAS]
	SUB	(339–373)	118	356	TE	[1947BAL]
	V		106.1 ± 1.3	398	GS	[2001PUR/CHI]
	V	(343–453)	93.2	398	GC	[1990HIN/BID2]
$C_{14}H_9Cl_5$	[789-02-6]	1,1,1-trichloro-2-(4-chlorophenyl)-2-(2-chlorophenyl)ethane (*p*,*o*′-DDT)				
	V	(343–453)	88.6	398	GC	[1990HIN/BID2]
$C_{14}H_9Cl_5$	[789-02-6]	1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)benzene				
	FUS		23.09	345.8	DSC	[1990DON/DRE]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_9Cl_5$		DDT				
	V	(313–363)	83.7	338		[1949KUH/MAS]
$C_{14}H_9Cl_5O$	[10606-46-9]	2-chloro-α-(4-chlorophenyl)-α-(trichloromethyl)benzenemethanol				
	FUS		25.2	396.3	DSC	[1991ACR, 1990DON/DRE]
$C_{14}H_9Cl_5O$	[115-32-2]	4-chloro-α-(4-chlorophenyl)-α-(trichloromethyl)benzenemethanol				
	FUS		19.56	347.2	DSC	[1990DON/DRE]
$C_{14}H_9F_3O_2$	[893-33-4]	4,4,4-trifluoro-1-(2-naphthyl)-butan-1,3-dione				
	SUB		108.7 ± 0.6	298	ME	[1997RIB/GON]
$C_{14}H_9F_{17}O_2$	[1996-88-9]	Perfluorooctylethylene methacrylate				
	TRS		5.0	210		
	FUS		9.0	253	DSC	[1992HOP/FAU]
$C_{14}H_9F_{21}O$	[39239-81-1]	ω-perfluorodecyl-1-butanol				
	FUS		21.3	360	DSC	[1991HOP/MOL]
$C_{14}H_9NO_2$	[82-45-1]	1-aminoanthraquinone				
	FUS		26.3	524.7	DSC	[2002SAW/SHI]
	FUS		28.78	524.2		[1988BAU/PER]
	SUB	(423–443)	121.1	433	GC	[2002SAW/SHI]
	SUB		121.8		GS	[1987SHI/OHK, 1991HOR]
	SUB	(413–443)	126.5	428	A	[1987STE/MAL]
	SUB	(368–393)	116.3 ± 3.9	380		[1984KRI]
	SUB	(473–553)	103.3	513	GS	[1977NIS/ISH, 1978NIS/ISH]
	SUB	(361–386)	U 90.9	374	TGA	[1971ASH]
	SUB		125.9 ± 2.5		TE,ME	[1970KOJ]
	SUB		131			[1968TSU/KOJ, 1988BAU/PER]
	SUB		113 ± 0.4	463	HSA	[1956BEY/NIC]
$C_{14}H_9NO_2$	[117-79-3]	2-aminoanthraquinone				
	SUB		136.8		GS	[1987SHI/OHK, 1991HOR]
	SUB		143.5 ± 2.9		TE,ME	[1970KOJ]
	SUB		162.3			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_9NO_2$	[602-60-8]	9-nitroanthracene				
	FUS		20.1	420.4	DSC	[2010KES/AUC]
	SUB	(361–377)	111.9 ± 0.6	369	ME	[2006RIB/AMA3]
	SUB	(361–377)	115.4 ± 0.6	298	ME	[2006RIB/AMA3]
$C_{14}H_9NO_3$	[116-85-8]	1-hydroxy-4-aminoanthraquinone				
	SUB	(433–453)	129.3	443	GC	[2002SAW/SHI]
	SUB		127.2		GS	[1987SHI/OHK, 1991HOR]
	SUB	(418–438)	131.3	428	A	[1987STE/MAL, 1980ROD/KRU]
	SUB	(444–473)	144	458.5	A	[1987STE/MAL]
	SUB		119.6			[1984KAR/KRU]
	SUB		133.5 ± 2.1		TE,ME	[1970KOJ]
	SUB		120.1			[1968TSU/KOJ, 1988BAU/PER]
$C_{14}H_9N_3O_4$	[82-33-7]	1,4-diamino-5-nitroanthraquinone				
	SUB (not crystalline)	(473-553)	U50.2	513	GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{14}H_{10}$	[120-12-7]	Anthracene				
	FUS		27.4	490	DSC	[2015RIC/FU]
	FUS		24.96	489.5	DSC	[2015DIN/YIN]
	FUS		27.8	487	DSC	[2011RIC/FU]
	FUS		28.2	489.7	DSC	[2010GOL/KUL]
	FUS		27.8	490	DSC	[2010RIC/FU, 2010RIC/SUU, 2011RIC/FU]
	FUS	(463–503)	29.8	492	DSC	[2003ROJ/ORO]
	FUS		31.5	491	DSC	[2003STO/KRZ]
	FUS		28.8	489.4	DSC	[2000LIS/JAM]
	FUS		29.0	490.6	DSC	[1980RAD/RAD]
	FUS		28.97	491.3	DSC	[1980KRA/PIG]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		29.0		DSC	[1972WAU/GET]
	FUS	(5–520)	29.37	488.9	AC	[1996DOM/HEA, 1970GOU/GIR]
	FUS		27.9	490.0	DSC	[1969ROB/SCO]
	FUS		28.83	490.0		[1950UEB/ORT]
	FUS		28.87	489.7	C	[1917HIL/DUS]
	SUB	(300–373)	97.1	336	ME	[2015RIC/FU]
	SUB	(321–360)	99.8 ± 0.5	341	ME	[2011FON/PFO]
	SUB	(321–360)	100.8 ± 0.5	298	ME	[2011FON/PFO]
	SUB	(322–367)	100.5 ± 0.3	345	ME	[2011SAN/LIM]
	SUB	(322–367)	101.8 ± 0.3	298	ME	[2011SAN/LIM]
	SUB	(331–375)	99.2 ± 0.9	349	ME	[2011SAN/LIM]
	SUB	(331–375)	100.6 ± 0.9	298	ME	[2011SAN/LIM]
	SUB	(300–373)	97.1 ± 1.1	337	ME	[2010RIC/FU, 2011RIC/FU]
	SUB	(322–348)	98.5 ± 3.3	335	ME	[2010GOL/SUU, 2008GOL/SUU3]
	SUB	(339–399)	97.6 ± 1.3	369	ME	[2009SID/SID]
	SUB	(339–399)	98.2	298	ME	[2009SID/SID]
	SUB	(320–355)	97.9 ± 0.6		ME	[2009OJA/CHE]
	SUB	(320–350)	98.4 ± 0.7		ME	[2009OJA/CHE]
	SUB	(320–354)	95.6 ± 1.2	337	ME	[2006CHE/OJA]
	SUB	(340–360)	98.8 ± 0.4	350	ME	[2006RIB/MON]
	SUB	(340–360)	100.2 ± 0.4	298	ME	[2006RIB/MON]
	SUB	(348–368)	102.5 ± 1.9	358	ME	[2004VER]
	SUB		96.3 ± 0.7	298	DSC	[2003ROJ/ORO]
	SUB		106		DSC	[2003STO/KRZ]
	SUB	(348–368)	102.5 ± 1.9	358	ME	[2002LI/SHI]
	SUB	(423–488)	94.5		MEM	[1999EMM/PIC]
	SUB	(338–353)	102.5		ME	[1998KLO/LAU]
	SUB		99.4	298	CGC–DSC	[1998CHI/HES]
	SUB	(318–363)	100.0 ± 2.8	341	ME	[1998OJA/SUU]
	SUB	(343–448)	84.0 ± 3.0	298	TGA	[1997TES/PIK]
	SUB	(313–453)	99.7	383	GS	[1995NAS/LEN]
	SUB	(318–373)	98.7	346	GS	[1986ROR]
	SUB	(313–363)	102.6	338	GS	[1986HAN/ECK]
	SUB		100 ± 2			[1985KIS/VEI]
	SUB	(353–399)	94.3		GS	[1983BEN/BIE]
	SUB	(283–323)	91.8 ± 0.9	303	GS	[1983SON/ZOL]
	SUB	(323–353)	91.2	338	GS	[1982GRA/FOS]
	SUB		97.4 ± 1.1		GS,C	[1981BRO/MCE]
	SUB		97.8 ± 0.1		HSA	[1980DYG/STE]
	SUB	(337–361)	104.5 ± 1.5	298	TE,ME	[1980DEK]
	SUB	(358–393)	94.8	376	GS	[1979MAC/PRA]
	SUB	(363–448)	98.8 ± 0.4		HSA	[1977DYG/STE]
	SUB	(328–372)	97.2		ME	[1976TAY/CRO]
	SUB		97.1		C	[1975ADE/BRO]
	SUB	(323–353)	102.9 ± 4.8	298	TE	[1975DEK/VAN]
	SUB	(283–323)	95.8 ± 6		LE	[1973MCE/SAN]
	SUB	(353–432)	101.0 ± 0.5		ME	[1973MAL/GIG]
	SUB		99.7	393	C	[1973MAL/GIG]
	SUB	(290–358)	84.1		ME	[1972WIE]
	SUB	(373–403)	100.3	393	MG	[1971ROG]
	SUB		U126 ± 4		DSC	[1971BEE/LIN]
	SUB	(368–480)	90.1	424		[1967BRA/SMI]
	SUB	(342–359)	98.3 ± 2.1			[1964KEL/RIC, 1970COX/PIL]
	SUB	(327–346)	90 ± 01.3	337	TE	[1960BUD]
	SUB		100.8			[1958HOY/PEP, 1970COX/PIL]
	SUB	(303–373)	103.4 ± 2.9			[1958HOY/PEP, 1970COX/PIL]
	SUB		100.8 ± 4.2			[1958HOY/PEP, 1970COX/PIL]
	SUB	(396–421)	97.5 ± 2		HSA	[1953STE]
	SUB	(339–353)	102.1	346		[1953BRA/CLE]
	SUB	(338–353)	102.1 ± 2.1			[1953BRA/CLE2, 1970COX/PIL]
	SUB		92.0 ± 2.1	364	ME	[1952INO/SHI]
	SUB		90.4	353	ME	[1951INO]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		95.4			[1951NIT/SEK]
	SUB		95.0			[1950NIT/SEK3]
	SUB	(378–398)	97.3 ± 1.2		RG	[1949SEA/HOP2]
	SUB		104.6 ± 4.2			[1949KLA, 1970COX/PIL]
	SUB		93.3 ± 4.2	353		[1938WOL/WEG]
	V		66.7	498	DSC	[2003ROJ/ORO, 2008HAN/NUT]
	V		78.5	298	CGC	[2008ZHA/UNH]
	V	(413–473)	79.5 ± 1.2	298	GC	[2006HAF/PAR]
	V	(323–473)	72.4	398	GC	[2002LEI/CHA]
	V		79.1	298	CGC	[2001PUR/CHI]
	V		79.8	298	CGC	[1998CHI/HES]
	V	(453–503)	79.6	298	CGC	[1995CHI/HOS]
	V	(343–453)	69.7	398	GC	[1990HIN/BID2]
	V	(504–615)	58.6	519	A	[1987STE/MAL]
	V		62.1	500		[1979KUD/KUD2, 2008HAN/NUT]
	V	(500–616)	59.2	558	I	[1923MOR/MUR]
	V	(500–616)	60.3	515	I	[1923MOR/MUR, 1984BOU/FRI]
	V	(496–614)	59.6	555	I	[1922NEL/SEN]
	V	(496–614)	60.7	511	I	[1922NEL/SEN, 1984BOU/FRI]
$C_{14}H_{10}$	[85-01-8]	Phenanthrene				
	FUS		15.2	372	DSC	[2015RIC/FU]
	FUS		16.1	371.1	DSC	[2011RIC/FU]
	FUS		16.69	372.1	DSC	[2008WEI]
	FUS		14.09	371.3	DSC	[2008MOG/SEP]
	FUS		18.1		DSC	[2003SHA/KAN]
	FUS	(353–383)	16.6	367.6	DSC	[2003ROJ/ORO]
	TRS		0.22	347.5		
	FUS		16.2	372.9	DSC	[2000LIS/JAM]
	TRS		0.22	347.5		
	FUS	(12–408)	16.46	372.4		[1996DOM/HEA, 1977FIN/MES]
	FUS		15.72	373.8	DTA	[1992SAB/ELW3]
	FUS		18.23		DSC	[1992SHA/SHA]
	FUS		16.3		DSC	[1972WAU/GET]
	TRS		1.1	341.9	DTA	[1966MAT]
	TRS		1.6	341.2		[1966ARN/DAM, 1967RIN/DAM]
	FUS		18.0	373.2	C	[1964RAS/BAS]
	FUS		17.5	372.2	DTA	[1958VAR]
	TRS		2.6	342		
	FUS		18.62	373		[1950UEB/ORT]
	FUS		17.15	371.4		[1944EIB]
	FUS		17.14	371.7		[1941SCH]
	SUB	(296–313)	88.5	304	ME	[2015RIC/FU]
	SUB	(303–372)	89.9 ± 0.8	298	GS	[2014ABO/MOK]
	SUB	(296–308)	88.5 ± 1.0		ME	[2011RIC/FU]
	SUB	(296–333)	92.1 ± 0.2	314	ME	[2011FON/PFO]
	SUB	(296–333)	92.7 ± 0.2	298	ME	[2011FON/PFO]
	SUB	(323–363)	88.0 ± 1.0	343	TGA	[2007SID/ATA]
	SUB	(313–333)	91.6 ± 0.4	323	ME	[2006RIB/MON]
	SUB	(313–333)	92.5 ± 0.4	298	ME	[2006RIB/MON]
	SUB		89.6 ± 0.8	298	DSC	[2003ROJ/ORO]
	SUB		92 ± 1		LE	[1998PRI/HAW]
	SUB		90.5	298	CGC–DSC	[1998CHI/HES]
	SUB	(303–333)	95.0 ± 4.4	318	ME	[1998OJA/SUU]
	SUB	(313–453)	88.9	383	GS	[1995NAS/LEN]
	SUB		87.2 ± 1.1	350	DSC	[1988TOR/BAR]
	SUB		90.9 ± 1.7	298	DSC	[1988TOR/BAR]
	SUB	(323–348)	96.2	335	GS	[1986SAT/INO]
	SUB	(317–362)	82 ± 2	340	TE	[1983FER/IMP]
	SUB	(283–323)	95.0 ± 0.6	303	GS	[1983SON/ZOL]
	SUB	(315–335)	92.5 ± 2	298	TE,ME	[1980DEK]
	SUB	(325–364)	87.2	345	GS	[1979MAC/PRA]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		87.2	372	B	[1975OSB/DOU]
	SUB	(300–330)	87.4 ± 0.8	298	TE	[1975DEK/VAN]
	SUB	(312–326)	86.6 ± 0.8	298	TCM	[UR/DEK, 1975DEK/VAN]
	SUB		90.9 ± 0.4	298	C	[1972MOR, 1977PED/RYL]
	SUB	(346–368)	76.5	358		[1967BRA/SMI]
	SUB	(279–315)	84.1 ± 2.5	297	TE	[1960BUD]
	SUB	(273–333)	95.9	303		[1958HOY/PEP, 1970COX/PIL]
	SUB	(310–323)	86.6			[1953BRA/CLE2, 1970COX/PIL, 1960JON]
	SUB		90.7 ± 1.2	315	ME	[1952INO/SHI]
	SUB		81.6	323	ME	[1951INO]
	SUB		92.9			[1949KLA, 1970COX/PIL]
	SUB		84.1 ± 0.8	313		[1938WOL/WEG]
	V	(373–471)	78.2 ± 0.6	298	GS	[2014ABO/MOK]
	V		78.7	298	CGC	[2008ZHA/UNH]
	V	(413–483)	79.0 ± 1.2	298	GC	[2006HAF/PAR]
	V		68.9	388	DSC	[2003ROJ/ORO]
	V	(323–473)	72.2	398	GC	[2002LEI/CHA]
	V		78.7	298	CGC	[1998CHI/HES]
	V		72.5		GC	[1996GOV/RUT]
	V	(403–453)	78.5	298	CGC	[1995CHI/HOS]
	V	(343–453)	71.2	398	GC	[1990HIN/BID2]
	V	(391–613)	58.2	406	A	[1987STE/MAL]
	V	(373–423)	69.6	388	A	[1987STE/MAL, 1975OSB/DOU]
	V		71.2	372		[1977FIN/MES]
	V		69.7	390		[1977FIN/MES]
	V		67.5	420		[1977FIN/MES]
	V	(476–620)	57.2	548	I	[1923MOR/MUR]
	V	(476–620)	61.2	491	I	[1923MOR/MUR, 1984BOU/FRI]
	V	(505–614)	59.3	560	I	[1922NEL/SEN]
	V	(505–614)	61.2	520	I	[1922NEL/SEN, 1984BOU/FRI]
$C_{14}H_{10}$	[501-65-5]	Diphenylacetylene				
	FUS	(8–371)	21.04	332	AC	[2011TKA/VAR]
	FUS		21.5	335	DSC	[2002STE/CHI3]
	FUS		20.5	334		[1996DOM/HEA, 1986CHI/ANN]
	FUS		20.0	331.5	DSC	[1993DIO/MIN]
	SUB		95.3	298	CGC–DSC	[1998CHI/HES]
	SUB	(298–316)	95.1 ± 1.1	298	ME	[1993DIO/MIN]
	SUB	(299–321)	90.0 ± 4.5	310	HSA	[1986CHI/ANN]
	SUB	(299–321)	88.7 ± 1.25	313	TE	[1938WOL/WEG, 1938WEG, 1960JON]
	V	(439–517)	63.8 ± 0.2	440	EB	[2002STE/CHI3]
	V	(439–517)	60.9 ± 0.2	480	EB	[2002STE/CHI3]
	V	(439–517)	58.1 ± 0.3	520	EB	[2002STE/CHI3]
$C_{14}H_{10}BrN$	[114772-54-2]	4′-bromomethyl-2-cyanobiphenyl				
	FUS		29.49	399.2	DSC	[2015YAN/WU]
$C_{14}H_{10}ClFN_2O_2$	[57160-48-2]	1-(2-fluorobenzoyl)-3-(4-chlorophenyl)urea				
	FUS		32.9	465	DSC	[2014OZA/NAK]
$C_{14}H_{10}ClFN_2O_2$	[1634626-32-6]	1-(3-fluorobenzoyl)-3-(4-chlorophenyl)urea				
	FUS		39.1	510	DSC	[2014OZA/NAK]
$C_{14}H_{10}ClFN_2O_2$	[1634626-33-7]	1-(4-fluorobenzoyl)-3-(4-chlorophenyl)urea				
	FUS		41.6	532	DSC	[2014OZA/NAK]
$C_{14}H_{10}Cl_2N_2O_2$	[57160-47-1]	1-(2-chlorobenzoyl)-3-(4-chlorophenyl)urea				
	FUS		35.5	471	DSC	[2014OZA/NAK]
$C_{14}H_{10}Cl_2N_2O_2$	[57160-49-3]	1-(4-chlorobenzoyl)-3-(4-chlorophenyl)urea				
	FUS		40.8	518	DSC	[2014OZA/NAK]
$C_{14}H_{10}Cl_2N_4O_2S$	[126728-18-5]	*N*,*N*′-bis[(2-chloro-3-pyridinyl)carbonyl]carbamimidothioic acid, methyl ester				
	FUS		10.23	415.4	DSC	[2009PLA/LIZ]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{10}Cl_2O_2$	[83-05-6]	bis(4-chlorophenyl)acetic acid				
	FUS		31.66	440.2	DSC	[1991ACR, 1990DON/DRE]
$C_{14}H_{10}Cl_4$	[72-54-8]	1,1-dichloro-2,2-bis(4-chlorophenyl)ethane *p*,*p*′-DDD				
	FUS		27.31	382.1	DSC	[1991ACR, 1990DON/DRE]
	V	(343–453)	88.5	398	GC	[1990HIN/BID2]
$C_{14}H_{10}Cl_4$	[121107-48-0]	(2,2′,4,6′-tetrachloro-5-methyldiphenyl)methane				
	V		98.6	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-46-8]	(2,2′,4,5′-tetrachloro-5-methyldiphenyl)methane				
	V		101	298	GC	[1996VAN/VAN]
	V		92.4		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-54-8]	(2,2′,5,5′-tetrachloro-4-methyldiphenyl)methane				
	V		101.2	298	GC	[1996VAN/VAN]
	V		92.6		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-44-6]	(2,2′,4,4′-tetrachloro-5-methyldiphenyl)methane				
	V		101.3	298	GC	[1996VAN/VAN]
	V		92.8		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-47-9]	(2,2′,4,6′-tetrachloro-3-methyldiphenyl)methane				
	V		100.1	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-83-3]	(2′,3,4,6′-tetrachloro-6-methyldiphenyl)methane				
	V		101.1	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-43-5]	(2,2′,4,4′-tetrachloro-3-methyldiphenyl)methane				
	V		101.8	298	GC	[1996VAN/VAN]
	V		93.0		GC	[1996GOV/RUT]
$C_{14}H_{10}Cl_4$	[121107-65-1]	(2,3′,4,4′-tetrachloro-5-methyldiphenyl)methane				
	V		103.8	298	GC	[1996VAN/VAN]
$C_{14}H_{10}Cl_4$	[121107-77-5]	(2′3,4,4′-tetrachloro-6-methyldiphenyl)methane				
	V		103	298	GC	[1996VAN/VAN]
	V		94.2		GC	[1996GOV/RUT]
$C_{14}H_{10}F_3NO_2$	[530-78-9]	2-[[3-(trifluoromethyl)phenyl]amino]benzoic acid (flufenamic acid)				
	FUS		27.13	408	DSC	[2010BAI/VAN]
	FUS		26.7	407	DSC	[2007PER/SUR2, 2009SUR/TER, 2008SUR/SUR, 2015SUR/SIM]
	FUS		27.0	407.3	DSC	[2004ROM/BUS]
	SUB	(339–376)	119.4 ± 0.7	358	GS	[2007PER/SUR2, 2009SUR/TER]
	SUB	(339–376)	121.2 ± 0.7	298	GS	[2007PER/SUR2, 2009SUR/TER, 2009SUR/PER, 2008SUR/SUR]
	V		101.6	298	S–F	[2007PER/SUR2]
$C_{14}H_{10}F_4$	[425-32-1]	1,1,2,2-tetrafluoro-1,2-diphenylethane				
	FUS		28.83	399.2		[1997SCH/VER]
	SUB		101.8	298		[1997SCH/VER]
$C_{14}H_{10}N_2O_2$	[128-95-0]	1,4-diaminoanthraquinone				
	FUS		24.2	484.2		[1988BAU/PER]
	SUB		143		GS	[1987SHI/OHK, 1991HOR]
	SUB	(448–474)	151.2	461		[1987STE/MAL, 1980ROD/KRU]
	SUB		136			[1984KAR/KRU]
	SUB	(378–403)	102.6 ± 9.7	390		[1984KRI]
	SUB	(473–553)	123	513	GS	[1977NIS/ISH, 1978NIS/ISH]
	SUB		199.2 ± 2.5		TE,ME	[1970KOJ]
	SUB		123.4			[1968TSU/KOJ, 1988BAU/PER]
	SUB		138.1		GS	[1967DAT/KAN, 1991HOR]
$C_{14}H_{10}N_2O_2$	[129-44-2]	1,5-diaminoanthraquinone				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(405–427)	118.5 ± 4.8	416		[1984KRI]
$C_{14}H_{10}N_2O_2$	[4870-16-0]	*N*-anilinophthalimide				
	TRS		1.62	401		
	FUS		26.9	457	DSC	[1998BOT/ELL]
$C_{14}H_{10}N_2O_3$	[58658-02-9]	10-methyl-2-nitroacridin-9(10*H*)-one				
	FUS		37.6	561	DSC	[2003STO/KRZ]
$C_{14}H_{10}O$	[90-44-8]	Anthrone				
	FUS		22.4	429.5	DSC	[2010MON/SOU]
	FUS		26.8	429.0		[1996DOM/HEA, 1991ELW/SAB]
[Note: Some decomposition upon melting.]						
	SUB	(346–365)	105.6 ± 0.8	356	ME	[2010MON/SOU]
	SUB	(346–365)	107.6 ± 0.8	298	ME	[2010MON/SOU]
	SUB		106.7 ± 1.8	298	C	[2010FRE/GOM2]
	SUB		106.1 ± 0.8	298	GS	[1998VER4]
	SUB		103.3	298		[1991ELW/SAB, 1992SAB/WAT]
	SUB		99.6	354	C	[1991ELW/SAB]
$C_{14}H_{10}O$	[30084-90-3]	2-fluorenecarboxaldehyde				
	SUB	(338–356)	100.0 ± 3.4	347	ME	[2008GOL/SUU]
$C_{14}H_{10}O_2$	[134-81-6]	Benzil				
	FUS		22.76	369.6	DSC	[2014TU/CHE]
	FUS		23.31	368.0	DSC	[2012CHA/LAY]
	FUS		23.19	368.2		[2012SHA/LAL]
	FUS		22.88	368.1	DSC	[2005FAT/KAS]
	FUS		23.2		DSC	[2003SHA/KAN]
	FUS		23.8	369.2	DSC	[2001RAI/VAR]
	FUS		23.8	369.2	DSC	[1998RAI/RAI]
	TRS	(15–300)	0.04	84.0	AC	
	FUS		23.56	368	AC	[1996DOM/HEA, 1980AND/CON]
	TRS	(60–100)	0.05	84.1	AC	[1977DWO/FUC]
	FUS		22.6	368.1		[1972BOO/HAU]
	SUB		106.3 ± 2.8	298	C	[2005FAT/KAS]
	SUB	(319–340)	98.4 ± 1.1	329		[1959AIH, 1970COX/PIL, 1987STE/MAL]
	SUB		82.8			[1938WOL/WEG, 1938WEG, 1960JON]
	V	(401–620)	69.2	416	A	[1987STE/MAL, 1947STU]
$C_{14}H_{10}O_2$	[1989-33-9]	9-fluorenecarboxylic acid				
	FUS		30.24	503.8	DSC	[2013OLI/CAL]
	SUB	(384–406)	126.8 ± 0.7	395	ME	[2013OLI/CAL]
	SUB	(384–406)	130.4 ± 0.8	298	ME	[2013OLI/CAL]
	SUB	(349–418)	110.1 ± 4.6	383	ME	[2008GOL/SUU]
$C_{14}H_{10}O_3$	[93-97-0]	Benzoic acid anhydride				
	FUS		17.15	313.2	DSC	[1971CAR/FIN]
	SUB		96.2 ± 4.2	298	B	[1971CAR/FIN, 1977PED/RYL]
	SUB		96.7 ± 4.2			[1947STU, 1970COX/PIL]
	V	(416–633)	69.1	431	A	[1987STE/MAL, 1947STU]
$C_{14}H_{10}O_3$	[82-07-5]	9-xanthenecarboxylic acid				
	SUB		125.5 ± 3.0	298	C	[2012FRE/GOM]
	SUB	(383–405)	126.0 ± 1.0	394	ME	[2012FRE/GOM]
	SUB	(383–405)	130.8 ± 2.2	298	ME	[2012FRE/GOM]
$C_{14}H_{10}O_4$	[94-36-0]	Benzoyl peroxide				
	FUS		22.59	378	FPD	[1967FIN/GRA]
[Note: Large uncertainty in reported value. The compound may undergo some decomposition upon melting.]						
	SUB	(310–340)	97.9 ± 2.5	298	ME	[1975CAR/LAY]
	SUB	(293–313)	89.7 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{10}O_4$	[3155-16-6]	Diphenyl oxalate				
	FUS		31.38	403	DSC	[1971CAR/FIN]
	SUB		102.5 ± 8.4		B	[1971CAR/FIN, 1977PED/RYL]
	V	(463–598)	68.2			[1971CAR/FIN]
$C_{14}H_{10}O_4$	[482-05-3]	2,2′-biphenyldicarboxylic acid				
	SUB		151.9 ± 3.5	298	C	[2004MAT/MIR2]
	SUB	(433–493)	166.1	448	A	[1987STE/MAL]
$C_{14}H_{10}O_4$	[787-70-2]	4,4′-biphenyldicarboxylic acid				
	SUB		196.4 ± 7.1	298	C	[2004MAT/MIR2]
$C_{14}H_{10}O_4$	[40498-13-3]	2,3-dihydro-1,4-dihydroxy-9,10-anthraquinone				
	SUB	(363–393)	110.7	363	TGA, GS	[2003HIN/RAF]
$C_{14}H_{10}O_5$	[962-16-3]	*O*-phenyl-*O*,*O*-benzoyl peroxycarbonate				
	SUB		97.9 ± 2.5			[1975CAR/LAY, 1977PED/RYL]
	SUB		133.9 ± 4.2		E	[1971KIP/RAB, 1977PED/RYL]
$C_{14}H_{10}O_5$	[552-94-3]	Salicylsalicylic acid				
	FUS		29.0	430.2	DSC	[2004RAM/DIO]
$C_{14}H_{11}BrN_2S$	[109768-69-6]	*N*-(4-bromophenyl)-4*H*-3,1-benzothiazin-2-amine				
	FUS		24.5	478.3	DSC	[2004GON/KOS]
$C_{14}H_{11}ClN_2O_2$	[57160-46-0]	1-benzoyl-3-(4-chlorophenyl)urea				
	FUS		39.1	510	DSC	[2014OZA/NAK]
$C_{14}H_{11}ClN_2S$	[461662-90-8]	*N*-(4-chlorophenyl)-4*H*-3,1-benzothiazin-2-amine				
	FUS		27.5	476.4	DSC	[2004GON/KOS]
$C_{14}H_{11}Cl_2NO_2$	[32809-16-8]	3-(3,5-dichlorophenyl)-1,5-dimethyl-3-azabicyclo[3.1.0]hexanedione				
	FUS		30.09	438.2	DSC	[1990DON/DRE]
$C_{14}H_{11}Cl_2NO_2$	[15307-86-5]	2-[(2,6-dichlorophenyl)amino]benzoic acid (diclofenac acid)				
	FUS		40.4	452.6	DSC	[2009SUR/TER, 2008SUR/SUR, 2010SUR/PER]
	FUS		39.4	454.2	DSC	[2007PAS/BET]
	FUS		38.4	453.7	DSC	[2003GIO/ROS]
	SUB	(323–355)	114.7 ± 1.3	339	GS	[2007PER/SUR, 2009SUR/TER]
	SUB	(323–355)	115.6 ± 1.3	298	GS	[2007PER/SUR, 2009SUR/TER, 2008SUR/SUR]
$C_{14}H_{11}FO_3$	[3119-88-8]	2′-fluoro-2-hydroxy-4-methoxybenzophenone				
	SUB	(307–318)	109.3	312.5	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{14}H_{11}FO_3$	[3506-35-2]	3′-fluoro-2-hydroxy-4-methoxybenzophenone				
	SUB	(322–343)	U 17.3	332.5	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{14}H_{11}FO_3$	[3602-47-9]	4′-fluoro-2-hydroxy-4-methoxybenzophenone				
	SUB	(322–343)	U 37.7	332.5	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{14}H_{11}F_3$	[68936-77-6]	1,1,2-trifluoro-1,2-diphenylethane				
	FUS		28.37	354.2		[1997SCH/VER]
	SUB		93.1	298		[1997SCH/VER]
$C_{14}H_{11}F_3$	[384-94-1]	1,1,1-trifluoro-2,2-diphenylethane				
	V	(286–328)	69.1 ± 0.9	298	GS	[1997SCH/VER]
$C_{14}H_{11}IO_3S$	[313057-05-5]	4-(2-propenyloxy)phenyl 5-iodo-2-thiophene carboxylate				
	FUS		83.68	383.2	DSC	[2000WU/WAN]
$C_{14}H_{11}N$	[948-65-2]	2-phenylindole				
	SUB	(360–382)	111.7 ± 0.8	371	ME	[2015CAR/AMA]
	SUB	(360–382)	114.4 ± 0.8	298	ME	[2015CAR/AMA]
$C_{14}H_{11}NO$	[574-39-0]	*N*-acetylcarbazole				
	FUS		15.1	349.9		[2001JAM/DOB]
$C_{14}H_{11}NO$	[719-54-0]	10-methylacridin-9(10*H*)-one				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		29.7	479	DSC	[2003STO/KRZ]
	SUB		105		DSC	[2003STO/KRZ]
$C_{14}H_{11}NO_2$	[5813-90-1]	9-xanthenecarboxamide				
	SUB		130.0 ± 4.2	298	C	[2012FRE/GOM]
	SUB	(399–421)	130.5 ± 1.1	410	ME	[2012FRE/GOM]
	SUB	(399–421)	136.1 ± 2.5	298	ME	[2012FRE/GOM]
$C_{14}H_{11}NO_3$	[841-12-3]	*N*-salicylidene-*m*-aminobenzoic acid				
	FUS		33.11	464	DSC	[1996DOM/HEA, 1991WU/XIO]
$C_{14}H_{11}NS$	[150993-53-6]	2-cyanophenyl benzyl sulfide				
	SUB		117.8 ± 2.1	298	C	[2006MUL/MOZ]
$C_{14}H_{11}N_3O_2$	[6407-69-8]	1,4,5-triaminoanthraquinone				
	SUB	(473–553)	U70.3	513	GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{14}H_{11}N_3O_4$	[191979-14-3]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 2-propenyl ester				
	FUS		26.87	383.7	DSC	[2005LIZ/ZAB]
$C_{14}H_{11}N_3O_4$	[191979-17-6]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 1-propenyl ester				
	FUS		26.27	389.4	DSC	[2005LIZ/ZAB]
$C_{14}H_{12}$	[1730-37-6]	1-methylfluorene				
	SUB	(285–317)	91.2 ± 0.4	298	GS	[2004VER]
	V		77.2 ± 3.6	298	CGC	[2008HAN/NUT]
	V	(361–375)	78.7 ± 0.7	298	GS	[2004VER]
	V	(323–473)	71.1	398	GC	[2002LEI/CHA]
$C_{14}H_{12}$	[2523-37-7]	9-methylfluorene				
	FUS		16.32	319.2	DSC	[1994RAK/VER2]
	SUB	(285–317)	83.7 ± 0.6	298	GS	[2004VER]
	SUB	(318–358)	82.8 ± 0.3	338	B	[1994RAK/VER2]
	SUB		82.8 ± 0.3	298		[1994RAK/VER2]
	V	(320–353)	70.6 ± 0.3	298	GS	[2004VER]
	V	(318–358)	71.3 ± 0.2	298	GS	[2004VER]
	V	(318-358)	66.5	298	B	[1994RAK/VER2]
$C_{14}H_{12}$	[613-31-0]	9,10-dihydroanthracene				
	SUB	(313–453)	93.9	383	GS	[1995NAS/LEN]
	SUB	(318–379)	92.4 ± 4		ME	[1975MAL/GIG, 1987STE/MAL]
	SUB		94.2 ± 0.8	298	ME	[1975MAL/GIG]
	SUB	(279–328)	93.3 ± 4	304		[1958HOY/PEP, 1970COX/PIL]
	SUB		89.5	388		[1951MAG/HAR, 1960JON]
$C_{14}H_{12}$	[776-35-2]	9,10-dihydrophenanthrene				
	FUS	(11–350)	12.8	306.5	AC	[1996DOM/HEA, 1979LEE/HOS]
	V	(417–453)	64.0	432	A	[1987STE/MAL]
	V	(353–418)	72.3 ± 0.6	340	IPM	[1979LEE/HOS]
	V	(353–418)	76.6 ± 0.1	298	IPM	[1979LEE/HOS]
$C_{14}H_{12}$	[530-48-3]	1,1-diphenylethylene				
	V	(298–331)	70.2 ± 0.7	314	GS	[1999VER/EBE]
	V	(298–331)	71.2 ± 0.7	298	GS	[1999VER/EBE]
	V	(360–550)	59.3	375	A	[1987STE/MAL, 1947STU]
$C_{14}H_{12}$	[645-49-8]	*cis*-1,2-diphenylethylene (*cis*-stilbene)				
	V	(308–343)	70.5 ± 0.4	298	GS	[2009CAM/EME]
	V	(373–428)	66.5	388	A	[1987STE/MAL]
	V	(276–286)	50.3 ± 1.0	298		[1952BRA/PLE, 2009CAM/EME]
$C_{14}H_{12}$	[103-30-0]	*trans*-1,2-diphenylethylene (*trans*-stilbene)				
	FUS	(317–411)	27.7	397.4	AC	[1985BOU/DEL]
	FUS	(8–450)	27.4	398.2	AC,DSC	[1991ACR, 1984VAN/BOU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		27.7	397.4	AC	[1985BOU/DEL]
	SUB	(324–367)	102 ± 0.4	298	GS	[2009CAM/EME]
	SUB		102	298	CGC–DSC	[1998CHI/HES]
	SUB	(298–343)	99.6	313	A	[1987STE/MAL]
	SUB		U 61.1		MS	[1983MAJ/AZZ]
	SUB	(293–338)	103.8 ± 2.5	315		[1983KRA/BEC]
	SUB		100.7 ± 0.4	298	SRFG	[1983VAN/JAC]
	SUB	(310–340)	99.6 ± 1.7	298	TE	[1975DEK/VAN]
	SUB		102.1 ± 0.6		TCM	[1973DEK/OON]
	SUB		99.2 ± 0.4			[1972MOR3]
	SUB	(303–315)	86.5 ± 0.1	309	T	[1955ENG]
	V		79.7	298	CGC	[1998CHI/HES]
	V	(453–503)	79.8	298	CGC	[1995CHI/HOS]
	V	(403–453)	79.6	298	CGC	[1995CHI/HOS]
	V	(419–580)	65.5	434	A	[1987STE/MAL]
$C_{14}H_{12}BrNOS$	[127351-08-0]	3-bromo-*N*-(4-methoxyphenyl)benzenecarbothioamide				
	FUS (I)		28.5	376.7		
	FUS (II)		22.6	373.2	DSC	[2007BAS/AND]
$C_{14}H_{12}ClN$	[33442-36-3]	4-chlorobenzylidene-4′-methylaniline				
	FUS		25.58	400.4	DSC	[1999GAL/COL]
$C_{14}H_{12}ClNO_2$	[13710-19-5]	2-[(3-chloro-2-methylphenyl)amino]benzoic acid (tolfenamic acid)				
	FUS		38.83	486	DSC	[2010BAI/VAN]
	FUS (white crys)		41.0	484.2		
	FUS (yellowcrys)		49.0	485.8	DSC	[2009SUR/SZT, 2015SUR/SIM]
	FUS		38.6	484.3	DSC	[2009SUR/TER]
	FUS		41.2	485.3		[2007BER/WAS]
	SUB	(346–373)	125.7 ± 0.8	360	GS	[2009SUR/TER]
	SUB	(346–373)	128.4 ± 0.8	298	GS	[2009SUR/TER, 2009SUR/PER]
$C_{14}H_{12}F_2$	[350-62-9]	1,1-difluoro-1,2-diphenylethane				
	FUS		24.35	339.2		[1997SCH/VER]
	SUB		94.7 ± 0.9	298		[1997SCH/VER]
$C_{14}H_{12}F_3NO_4S_2$	[37924-13-3]	1,1,1-trifluoro-*N*-[2-methyl-4-(phenylsulphonyl)phenyl]methanesulfonamide				
	FUS		31.79	418.4	DSC	[1990DON/DRE]
$C_{14}H_{12}N_2$	[22739-29-3]	*N*-methyl-9-acridinamine				
	SUB		107	480	TGA	[1998STO/KRZ]
$C_{14}H_{12}N_2$	[5291-44-1]	10-methyl-9-acridinimine				
	SUB		94	550	TGA	[1998STO/KRZ]
$C_{14}H_{12}N_2$	[588-68-1]	Dibenzylideneazine				
	SUB		93.3 ± 2.1	293	E	[1948COA/SUT]
$C_{14}H_{12}N_2$	[484-11-7]	2,9-dimethyl-1,10-phenanthroline				
	FUS		17.6	435.9	DSC	[2007BON/CAT]
$C_{14}H_{12}N_2$	[621-72-7]	2-benzylbenzimidazole				
	SUB	(393–412)	134.5 ± 0.5	403	ME	[2005RIB/RIB]
	SUB	(393–412)	136.2 ± 0.5	298	ME	[2005RIB/RIB]
$C_{14}H_{12}N_2O_2$	[192998-96-2]	*cis*-5*a*,6,11*a*,12-tetrahdro[1,4]benzothiazino[3,2-*b*][1,4]-benzoxazine				
	SUB	(383–392)	122	387	ME	[1997GUD/TOR]
	SUB	(383–392)	129.0 ± 1.3	298	ME	[1997GUD/TOR]
$C_{14}H_{12}N_2O_2$	[730-39-2]	4-nitro-4′-methylbenzylidene aniline				
	FUS		27.3	402	DSC	[1997KER/LOC]
$C_{14}H_{12}N_2O_3$	[1821-33-6]	1-benzoyl-3-phenylurea				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		32.1	477	DSC	[2014OZA/NAK]
$C_{14}H_{12}N_2O_4$	[42472-93-5]	*N*-methylthalidomide				
	FUS		18.12	432.2	DSC	[2002GOO/LAI]
$C_{14}H_{12}N_2O_4$	[1801682-09-6]	(*E*)-2-methoxy-6-[[(3-nitrophenyl)imino]methyl]phenol				
	FUS (orthorhombic)		29.98	416.7		
	FUS (triclinic)		34.34	417.7	DSC	[2015CAR/DUB]
$C_{14}H_{12}N_2S_2$	[165454-33-1]	*cis*-5*a*,6,11*a*,12-tetrahydro[1,4]benzothiazno[3,2-*b*]-[1,4]-benzothiazine				
	SUB	(383–392)	118	387	ME	[1997GUD/TOR]
	SUB	(383–392)	123.3 ± 1.2	298	ME	[1997GUD/TOR]
$C_{14}H_{12}N_4O_2$	[2475-45-8]	1,4,5,8-tetraminoanthraquinone				
	SUB	(473–553)	U82	513	GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{14}H_{12}N_4O_2S$		*N*,*N*′-bis[(3-pyridinyl)carbonyl]carbamimidothioic acid, methyl ester				
	FUS		11.23	437.2	DSC	[2009PLA/LIZ]
$C_{14}H_{12}O$	[451-40-1]	Benzyl phenyl ketone				
	V	(396–594)	68.1	411	A	[1987STE/MAL, 1947STU]
$C_{14}H_{12}O$	[131-58-8]	2-methylbenzophenone				
	V		81.2 ± 1.7	298	C	[2006RIB/AMA4]
	V	(435–580)	65.1	450	A	[1987STE/MAL]
$C_{14}H_{12}O$	[643-65-2]	3-methylbenzophenone				
	V		85.6 ± 1.2	298	C	[2006RIB/AMA4]
	V	(445–585)	68.4	460	A	[1987STE/MAL]
$C_{14}H_{12}O$	[134-84-9]	4-methylbenzophenone				
	SUB		97.3 ± 1.0	298	C	[2006RIB/AMA4]
	V	(450–492)	72.0	465	A	[1987STE/MAL]
$C_{14}H_{12}O$	[451-40-1]	Desoxybenzoin				
	SUB		99.3 ± 4.2			[1947STU, 1970COX/PIL]
$C_{14}H_{12}O$	[24324-17-2]	9-fluorenylmethanol				
	FUS		27.91	377.1	DSC	[2013OLI/CAL]
	FUS	(78–390)	26.27	376.6	AC	[2004DI/TAN]
	SUB	(337–359)	117.0 ± 0.2	348	ME	[2013OLI/CAL]
	SUB	(337–359)	118.8 ± 0.2	298	ME	[2013OLI/CAL]
	V	(363–400)	86.0 ± 0.1	381	CDG	[2013OLI/CAL]
	V	(363–400)	97.8 ± 0.1	298	CDG	[2013OLI/CAL]
$C_{14}H_{12}O_2$	[579-44-2]	(*dl*)-benzoin				
	FUS		40.30	408.2	DSC	[2012KAN/RAI]
	V		98.5 ± 12.5	298	CGC	[2006PER/CON]
	V	(408–616)	69.0	423	A	[1987STE/MAL, 1947STU]
$C_{14}H_{12}O_2$	[120-51-4]	Benzyl benzoate				
	FUS		20.44	293.1	DSC	[1990DON/DRE]
	V	(497–602)	59.7	512	A,EB	[1987STE/MAL, 1976HON/SIN]
	V	(297–353)	77.7	312	A,ME	[1987STE/MAL, 1957SER/VOI]
$C_{14}H_{12}O_2$	[5728-52-9]	Biphenyl-4-ylacetic acid (felbinac)				
	FUS		29.76	437	DSC	[2010BAI/VAN]
$C_{14}H_{12}O_2$	[117-34-0]	Diphenylacetic acid				
	FUS		31.18	420.3	DSC	[2012CHA/LAY]
	FUS		29.9	420.4	DSC	[2011MON/SOU]
	FUS		31.18	420.4	DSC	[2010CHA/LAY]
	FUS		31.27	420.4		[1996DOM/HEA, 1980AND/CON]
	SUB	(357–379)	128.9 ± 0.7	308	ME	[2011MON/SOU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(357–379)	131.7 ± 0.7	298	ME	[2011MON/SOU]
$C_{14}H_{12}O_2$	[2553-04-0]	(2-methoxyphenyl)phenylmethanone				
	FUS		0.68	350.2	DTA	[1989SAL/ABA]
[Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent.]						
$C_{14}H_{12}O_2S$	[16212-06-9]	*E*-(2-phenylethenyl)sulfonyl benzene (phenyl *trans*-B-styrylsulfone)				
	SUB		105 ± 3.8		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{14}H_{12}O_3$	[118-58-1]	Benzyl salicylate				
	V		96.8	298	CGC	[2011UMN/CHI]
	V	(295–334)	78.7	310	A,ME	[1987STE/MAL, 1955SER/VOI]
$C_{14}H_{12}O_3$	[131-57-7]	2-hydroxy-4-methoxybenzophenone				
	FUS		21.77	336.7		[2008LAG/JIM]
	SUB	(281–337)	118.9	296	A	[1987STE/MAL]
	SUB	(308–323)	U39.7	315	EV	[1966GRA/BUR]
	V	(337–413)	74.7	352	A,UV	[1987STE/MAL, 1960SCH/HIR]
$C_{14}H_{12}O_4$	[58110-44-4]	3-[5-(4-methoxyphenyl)fur-2-yl]acrylic acid				
	SUB	(395–425)	154.6 ± 6.7	410	ME	[2014DIB/RAE]
	SUB	(395–425)	160.0 ± 6.7	298	ME	[2014DIB/RAE]
$C_{14}H_{12}O_4$	[131-53-3]	2,2′-dihydroxy-4-methoxybenzophenone				
	FUS		22.0	343	DSC	[1999PRI/HAW]
	SUB		103.8		B	[1999PRI/HAW]
	SUB	(303–342)	228	318	A	[1987STE/MAL]
	V		81.8		TGA	[1999PRI/HAW]
	V	(342–481)	75.6	357	A,UV	[1987STE/MAL, 1960SCH/HIR]
$C_{14}H_{12}O_4$	[131-53-3]	2,4-dihydroxy-4′-methoxybenzophenone				
	FUS		35.6	436.8	DSC	[1999PRI/HAW]
	SUB		138.3		B	[1999PRI/HAW]
	V		102.7		TGA	[1999PRI/HAW]
$C_{14}H_{12}O_4$	[10060-32-9]	1,2-dicarbomethoxynaphthalene				
	FUS		27.6	358.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_4$	[18713-38-7]	1,3-dicarbomethoxynaphthalene				
	FUS		30.5	378.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_4$	[7487-15-2]	1,4-dicarbomethoxynaphthalene				
	FUS		20.4	340.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_4$	[19458-95-8]	1,5-dicarbomethoxynaphthalene				
	FUS		26.4	392	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_4$	[16144-94-8]	1,6-dicarbomethoxynaphthalene				
	FUS		22.1	371.8	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_4$	[68267-12-9]	1,7-dicarbomethoxynaphthalene				
	FUS		20.0	363.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_4$	[13728-34-2]	2,3-dicarbomethoxynaphthalene				
	FUS		20.2	324.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_4$	[2549-47-5]	2,7-dicarbomethoxynaphthalene				
	FUS		26.6	410.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{12}O_5$	[82-02-0]	4,9-dimethoxy-7-methyl-5*H*-furo[3,2*g*][1]benzopyran-5-one (khellin)				
	FUS (I)		27.9	423.5		
	FUS (II)		32.32	426.5	DSC	[1979MAS/MAL]
$C_{14}H_{13}ClN_2O_2$	[457899-89-7]	4-chloro-2′-hydroxy-4′-ethoxyazobenzene				
	FUS		34.3	421	DSC	[2003PAJ/ROS]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{13}N$		*N*-benzybenzaldehyde-imine				
	V	(309–340)	83.4 ± 1.2	324	GS	[1997VER/MOR]
	V	(309–340)	85.0 ± 1.2	298	GS	[1997VER/MOR]
$C_{14}H_{13}N$	[86-28-2]	*N*-ethylcarbazole				
	FUS		16.55	342.4	DSC	[2016STA/KEI]
	FUS		15.1	343.1	DSC	[2011VER/EME]
	SUB	(313–341)	97.1 ± 1.0	298	GS	[2011VER/EME]
	SUB	(310–329)	98.4 ± 0.3	319	ME	[1990JIM/ROU]
	SUB	(310–329)	99.1 ± 0.3	298	ME	[1990JIM/ROU]
	V	(344–383)	83.9 ± 0.5	298	GS	[2011VER/EME]
	V	(348–373)	74.9	366	GS	[1980VAN/PRA]
	V	(348–373)	80.2 ± 1.5	298	GS	[1980VAN/PRA, 2011VER/EME]
$C_{14}H_{13}NO$	[519-87-9]	*N*,*N*-diphenylacetamide				
	FUS		23.4	374.4		[2001JAM/DOB]
	SUB	(343–376)	122.7	358	A	[1987STE/MAL]
$C_{14}H_8NO_2$	[3585-93-1]	*N*-(4-methoxyphenylmethylene)benzenamine *N*-oxide				
	SUB		130.6 ± 1.2	298	C	[1986KIR/ACR]
$C_{14}H_{13}N_3O_3$	[7209-85-0]	Vanillin isoniazid				
	FUS		49.7	509.7	DSC	[2015BLO/SHA]
	SUB	(394–410)	182.2 ± 3.7	298	GS	[2015BLO/SHA]
$C_{14}H_{13}N_3O_4$	[191979-08-5]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, propyl ester				
	FUS		24.99	372.2	DSC	[2005LIZ/ZAB]
$C_{14}H_{13}N_3O_4$	[191979-12-1]	2-cyano-6-nitro-1(2*H*)-quinolinecarboxylic acid, 1-methylethyl ester				
	FUS		27.75	402	DSC	[2005LIZ/ZAB]
$C_{14}H_{13}N_3O_4S$	[71125-38-7]	4-hydroxy-2-methyl-*N*-(5-methyl-2-thiazolyl)-2*H*-1,2-benzothiazine-3-carboxamide-1,1-dioxide (meloxicam)				
	FUS		49.9	536.7	DSC	[2011DEL/HOL]
[Note: The authors of [2011DEL/HOL] were aware of the large difference between their measured enthalpy of fusion at the value reported in [2007BAB/SUB].]						
	FUS		71.73	530	DSC	[2007BAB/SUB]
$C_{14}H_{14}$	[620-83-7]	(4-methylphenyl)phenylmethane				
	V	(293–333)	68.6 ± 0.3	313	GS	[1999VER5]
	V	(293–333)	69.5 ± 0.3	298	GS	[1999VER5]
$C_{14}H_{14}$	[605-39-0]	2,2′-dimethylbiphenyl				
	FUS		2.28	293.1		[1996DOM/HEA, 1987CHI/HOS]
	SUB	(283–288)	65.7	285	ME	[1974PRI/POU, 1987STE/MAL]
$C_{14}H_{14}$	[612-75-9]	3,3′-dimethylbiphenyl				
	FUS	(6–372)	18.92	282.44	AC	[2013TKA/DRU]
	V		70.7 ± 1.4	298		[2013TKA/DRU]
	V	(288–308)	71.9	298	A,ME	[1987STE/MAL, 1974PRI/POU]
$C_{14}H_{14}$	[613-33-2]	4,4′-dimethylbiphenyl				
	SUB	(334–379)	95.2 ± 0.6	298	GS	[2012NAZ/NES]
	SUB		95.2 ± 1.5	298	C	[2009MIR/PAS, 2012NAZ/NES]
	SUB		95.1 ± 2.0	298	C	[1997RIB/MAT4]
	V		69.4	398.2	C	[2014PIM/PAS]
$C_{14}H_{14}$	[1812-51-7]	2-ethylbiphenyl				
	FUS		2.07	267.1		[1996DOM/HEA, 1987CHI/HOS]
$C_{14}H_{14}$	[612-00-0]	1,1-diphenylethane				
	V	(293–328)	68.2 ± 0.6	313	GS	[1999VER5]
	V	(293–328)	68.9 ± 0.6	298	GS	[1999VER5]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(348–405)	62.4	363	A	[1987STE/MAL]
$C_{14}H_{14}$	[103-29-7]	1,2-diphenylethane				
	FUS		23.22	324.7	DSC	[2001MON/HIL5]
	TRS		2.25	273.2		
	FUS		22.73	324.3		[1996DOM/HEA, 1988MES/FIN]
	SUB	(289–303)	93.3 ± 0.9	296	ME	[2001MON/HIL5]
	SUB	(289–303)	93.2 ± 0.9	298	ME	[2001MON/HIL5]
	SUB	(293–323)	92.9	308	EM	[1989SAS/NGU]
	SUB	(273–318)	91.2 ± 0.4	295		[1983KRA/BEC]
	SUB		91.5 ± 0.7	298	B	[1980OSB/SCO]
	SUB		91.4 ± 0.5	298	C	[1972MOR]
	SUB	(286–307)	84.1 ± 0.4		V	[1959AIH, 1970COX/PIL]
	SUB	(290–317)	72.4 ± 1.3	304	ME	[1951BRI, 1938WOL/WEG, 1960JON]
	SUB		73.2			[1938WEG]
	V	(323–473)	67.4	398	GC	[2002LEI/CHA]
	V		66.2 ± 0.2	340		[1988MES/FIN]
	V	(333–413)	64.1	373		[1989SAS/NGU]
	V	(359–557)	57.0	374	A	[1987STE/MAL, 1947STU]
$C_{14}H_{14}$	[2141-42-6]	1,2,3,4-tetrahydroanthracene				
	TRS		19.16	373.3		
	FUS		2.92	388		[1996DOM/HEA, 1987CHI/HOS2]
$C_{14}H_{14}$	[1013-08-7]	1,2,3,4-tetrahydrophenanthrene				
	TRS		0.10	285		
	TRS		1.77	298		
	FUS	(5–430)	11.17	302.6	AC	[1994CHI/GAM]
$C_{14}H_{14}$	[1857-75-6]	1,2-*cis*-dimethylacenaphthene				
	FUS		22.59	325.2		[1974CAN/JAC]
$C_{14}H_{14}$	[51921-69-8]	1,2-*trans*-dimethylacenaphthene				
	FUS		18.83	350.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-64-5]	1,3-dimethylacenaphthene				
	FUS		12.55	283.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-75-8]	1,4-dimethylacenaphthene				
	FUS		17.57	279.7		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-80-5]	1,5-dimethylacenaphthene				
	FUS		22.18	316.7		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-89-4]	1,7-dimethylacenaphthene				
	FUS		14.23	288.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-90-7]	1,8-dimethylacenaphthene				
	FUS		14.23	289.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-94-1]	3,4-dimethylacenaphthene				
	FUS		17.57	357.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-95-2]	3,8-dimethylacenaphthene				
	FUS		17.99	341.7		[1974CAN/JAC]
$C_{14}H_{14}$	[56137-98-5]	4,7-dimethylacenaphthene				
	FUS		15.06	314.2		[1974CAN/JAC]
$C_{14}H_{14}$	[56138-04-6]	5,6-dimethylacenaphthene				
	FUS		21.76	443.2		[1974CAN/JAC]
$C_{14}H_{14}ClN_3S$	[436847-00-6]	*N*-2-(4,6-lutidyl)-*N*′-(2-chlorophenyl)thiourea				
	FUS		42.2	467.2	DSC	[2002KEL/SZC]
$C_{14}H_{14}ClN_3S$	[436847-02-8]	*N*-2-(4,6-lutidyl)-*N*′-(4-chlorophenyl)thiourea				
	FUS		66.5	499.7	DSC	[2002SZC/KEL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{14}Cl_2N_2O$	[35554-44-0]	1-[2-(2,4-dichlorophenyl)-2-(propenyloxy)ethyl]-1*H*-imidazole				
	FUS		30.5	322.6	DSC	[1990DON/DRE]
$C_{14}H_{14}FN_3$	[150-74-3]	*N*,*N*-dimethyl-4-[(fluorophenyl)azo]benzenamine				
	SUB		91.2		UV	[1984KAR/ROD]
$C_{14}H_{14}FN_3O_2S$	[4644-89-7]	4-[[4-(dimethylamino)phenyl]azo]benzenesulfonyl fluoride				
	SUB		105.6		UV	[1984KAR/ROD]
$C_{14}H_{14}F_3NO_2$	[41934-47-8]	4-trifluoromethyl-7-(*N*,*N*-diethylamino)coumarin				
	FUS		23.3	360	DSC	[1991ZHA/HUA]
$C_{14}H_{14}NO_3$	[2643-00-7]	bis(4-methoxyphenyl)nitrogen oxide				
	SUB	(328–363)	100.7	343	A	[1987STE/MAL, 1965KAL/ROZ]
$C_{14}H_{14}NO_4PS$	[2104-64-5]	*O*-ethyl *O*-(4-nitrophenyl)phenylphosphonothioate				
	FUS		25.05	308.2	DSC	[1990DON/DRE]
$C_{14}H_{14}N_2$	[621-09-0]	*N*,*N*-diphenyl ethanimidamide				
	SUB	(343–383)	122.6 ± 3.8	363	ME	[1958DUN/HAN]
$C_{14}H_{14}N_2O_2$		4-(2-hydroxyethoxy)azobenzene				
	SUB		120.9		GS	[1956MAJ2, 1991HOR]
$C_{14}H_{14}N_2O_2$	[156461-81-3]	*N*-methyl-*N*-nitro-4-(phenylmethyl)benzenamine				
	FUS		21.7	329.6	DSC	[2002DAS/ZAL]
$C_{14}H_{14}N_2O_3$	[1562-94-3]	4,4′-dimethoxyazoxybenzene (*p*-azoxyanisole)				
	SUB		134.8 ± 3.7	298	C	[1993ACR/TUC]
	V	(395–418)	73.7	406	A,I	[1987STE/MAL, 1974SOL/GRU]
$C_{14}H_{14}N_2O_3$	[57721-89-8]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, ethyl ester				
	FUS		22.37	359.1	DSC	[2005LIZ/ZAB]
$C_{14}H_{14}N_2O_3S$	[2080-33-3]	*N*-[4-[(phenylamino)sulfonyl]phenyl]acetamide				
	FUS		38.96	484.6	DSC	[2014LAH/KUD]
$C_{14}H_{14}N_2O_4S$	[1169390-39-9]	6-[(phenylsulfonyl)amino]-3-pyridine-carboxylic acid, ethyl ester				
	FUS		22.5	427.9	DSC	[2014PER/KAZ]
$C_{14}H_{14}N_2O_5S$	[349098-79-9]	4-nitro-*N*-(4-ethoxyphenyl)benzene sulfonamide				
	FUS		38.9	445.2	DSC	[2014PER/KAZ]
$C_{14}H_{14}N_4O_2$	[3837-55-6]	3-nitro-4′-(*N*,*N*-dimethylamino)-azobenzene				
	SUB	(388–412)	133.9 ± 3.8	400	ME	[1967GRE/JON]
	SUB	(392–410)	133.1 ± 3.8	401	TE	[1967GRE/JON, 1987STE/MAL]
$C_{14}H_{14}N_4O_2$	[2491-74-9]	4-nitro-4′-(*N*,*N*-dimethylamino)-azobenzene				
	SUB	(413–425)	134.3 ± 7.5	419	ME	[1967GRE/JON, 1966JON/KRA]
	SUB	(414–428)	135.1 ± 0.9	421	TE	[1967GRE/JON, 1987STE/MAL]
	SUB		134.3		ME	[1956MAJ2, 1991HOR]
$C_{14}H_{14}O$	[103-50-4]	Dibenzyl ether				
	V	(275–417)	45.6	290	A	[1987STE/MAL]
	V	(413–461)	59.4	428	A	[1987STE/MAL]
$C_{14}H_{14}O$	[59502-28-2]	Isopropyl 2-naphthyl ketone				
	V	(406–586)	75.9	421	A	[1987STE/MAL, 1947STU]
$C_{14}H_{14}O$	[52857-29-1]	2-(1-phenylethyl)phenol				
	V	(443–521)	82.8	458	A	[1987STE/MAL]
	V	(442–523)	72.8	482		[1947GOL/MAR]
$C_{14}H_{14}O$	[1988-89-2]	4-(1-phenylethyl)phenol				
	V	(447–517)	90.8	462	A	[1987STE/MAL]
	V	(447–523)	75.4	485		[1947GOL/MAR]
$C_{14}H_{14}O$	[599-67-7]	1,1-diphenylethanol				
	FUS		26.49	357.9	DSC	[1998VER3]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(318–348)	102.9 ± 0.8	333	GS	[1998VER3]
	SUB	(318–348)	105.0 ± 0.8	298	GS	[1998VER3]
$C_{14}H_{14}OS$	[26905-24-8]	4-methoxyphenyl benzyl sulfide				
	SUB		112.5 ± 2.7	298	C	[2006MUL/MOZ]
$C_{14}H_{14}O_2$	[655-48-1]	(*dl*)-1,2-diphenyl-1,2-dihydroxyethane				
	FUS		31.38	393	DSC	[1976LEC/COL]
$C_{14}H_{14}O_2$		(*d*)-1,2-diphenyl-1,2-dihydroxyethane				
	FUS		34.31	420.5	DSC	[1976LEC/COL]
$C_{14}H_{14}O_2$	[7501-02-2]	2-(2-biphenyloxy)ethanol				
	V	(410–608)	71.9	425	A	[1987STE/MAL]
$C_{14}H_{14}O_2$	[2081-08-5]	4,4′-ethylidenebis(phenol)				
	FUS		27.9	399.3	DSC	[2014COS/DAV]
	SUB	(370–394)	137.4 ± 0.7	298	ME	[2014DAV/HER, 2014COS/DAV]
$C_{14}H_{14}O_2S$	[620-32-6]	Dibenzyl sulfone				
	SUB		125.5 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_{14}H_{14}O_2S$	[599-66-6]	di-*p*-tolyl sulfone				
	SUB		109.6 ± 2.9			[UR/MAC, 1970COX/PIL]
$C_{14}H_{14}O_3$	[22204-53-1]	*S*-(+)-6-methoxy-α-methyl-2-naphthaleneacetic acid (naproxen)				
	FUS		35.30	429.2	DSC	[2015GAU/VAN]
	FUS		29.0	426.7	DSC	[2014SAI/MUR]
	FUS		32.0	432.1	DSC	[2012ELK/ASH]
	FUS		30.3	428.7	DSC	[2012MAX/CHI]
	FUS		31.7	429.4	DSC	[2011BRA/ARD]
	FUS		33.0	428.8	DSC	[2011CAS/RIB]
	FUS		32.4	431.4	DSC	[2011ZHO/SHI]
	FUS		24.3	427.7	DSC	[2009GAS/CEN]
	FUS		28.0	429.2	DSC	[2007VIP/WAN]
	FUS		34.2	428.8	DSC	[2006WAS/HOL]
	FUS		32.76	429.6	DSC	[2005MUR/BET]
	FUS		32.24	429.8	DSC	[2002MUR/GRA]
	FUS		32.2	429.9	DSC	[1999BET/SOR, 1998SOR/NEG]
	FUS		31.73	429.3	DSC	[1998BUS/PEN2]
	FUS		31.5	428.5		[1997NEA/BHA]
	FUS		31.5	431.9	DSC	[1994WEB/MEY]
	FUS		29.41	439.2	DSC	[1993CON/VIA]
	SUB		155.2	298	V+F	[2012MAX/CHI]
	SUB	(341–397)	128.3 ± 0.5		GS	[2004PER/KUR]
	SUB	(341–397)	132.1 ± 1.8	298	GS	[2004PER/KUR, 2012MAX/CHI]
	V	(473–503)	131.7 ± 6.7	298	CGC	[2012MAX/CHI]
$C_{14}H_{14}O_3$	[23981-80-8]	(*RS*)-naproxen				
	FUS		33.2	429.0	DSC	[2011BRA/ARD]
$C_{14}H_{14}O_3$	[83-26-1]	2-pivaloylindan-1,3-dione (pindone)				
	FUS		25.99	381.5	DSC	[1991ACR, 1990DON/DRE]
$C_{14}H_{14}O_5$	[111171-30-3]	8-(hydroxymethyl)-6-methyl-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	TRS		2.96	415.6		
	FUS		29.58	429.8	DSC	[1992HUA/ZHO2]
$C_{14}H_{14}O_6$	[111171-31-4]	8-(hydroxymethyl)-6-methoxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	FUS		36.42	431.9	DSC	[1992HUA/ZHO2]
$C_{14}H_{14}O_8$	[3451-02-3]	1,2,3,4-tetracarbomethoxybenzene				
	FUS		40.4	404.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{14}H_{14}O_8$	[3034-97-7]	1,2,3,5-tetracarbomethoxybenzene				
	FUS		32.6	389.2	DSC	[1993ACR, 1978DOZ/FUJ]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{14}O_8$	[635-10-9]	1,2,4,5-tetramethoxycarbonylbenzene				
	FUS		35.7	416.7	DSC	[1993ACR, 1978DOZ/FUJ]
	SUB	(371–391)	140.4 ± 0.8	381	ME	[1995JIM/MEN]
	SUB	(371–391)	143.3 ± 0.8	298	ME	[1995JIM/MEN]
	SUB		135.9 ± 1.3	298		[1967TUR2, 1995JIM/MEN]
$C_{14}H_{14}S$	[538-74-9]	Dibenzyl sulfide				
	SUB		93.3 ± 5		E	[1962MAC/MAY3, 1970COX/PIL]
$C_{14}H_{14}S_2$	[150-60-7]	Benzyl disulfide				
	FUS	(80-377)	44.7	341.7	AC	[2007WAN/TAN]
$C_{14}H_{15}F_3N_2S$	[1639369-05-3]	*N*-(3-thia-1-azabicyclo[3.3.1]non-2-ylidene)-4-(trifluoromethyl)aniline				
	FUS		20.2	364.3	DSC	[2014SUR/PRO]
	SUB	(315–340)	87.6 ± 0.9	327	GS	[2014SUR/PRO]
	SUB	(315-340)	89.0 ± 0.9	298	GS	[2014SUR/PRO]
$C_{14}H_{15}N$	[103-49-1]	Dibenzylamine				
	V	(391–573)	70.5	406	A	[1987STE/MAL, 1947STU]
$C_{14}H_{15}N$	[606-99-5]	*N*,*N*-diphenyl-*N*-ethylamine				
	V	(371–559)	63.2	386	A	[1987STE/MAL, 1947STU]
$C_{14}H_{15}NO$	[317820-05-6]	2-(4-ethoxyphenyl)-5-methylpyridine				
	FUS		21.0	364	DSC	[2000MOR/HAR]
$C_{14}H_{15}NO_2S$	[16939-27-8]	*N*-(2,6-dimethylphenyl)benzene sulfonamide				
	FUS (I)		38.3	424.7		
	FUS (II)		30.1	426.3	DSC	[2010SAN/SAR]
$C_{14}H_{15}N_3$	[60-11-7]	4-(*N*,*N*-dimethylamino)azobenzene				
	SUB	(368–383)	125.3	376	GC	[2002SAW/SHI]
	SUB	(346–354)	117.6 ± 1.7	350	ME	[1967GRE/JON]
	SUB	(352–354)	115.9 ± 1.3	353	TE	[1967GRE/JON]
	SUB		120.9 ± 1.7	373	ME	[1956MAJ, 1987STE/MAL]
	V	(393–413)	88.9	403	GC	[2002SAW/SHI]
$C_{14}H_{15}N_3$	[25548-37-2]	(*E*)-4-(*N*,*N*-dimethylamino)azobenzene				
	SUB		132 ± 8	381	TE	[1985CAM/FER]
$C_{14}H_{15}N_3$	[60-11-7]	*N*,*N*-dimethyl-4-phenylazoaniline				
	FUS		23.08	389.2		[1988BAU/PER]
$C_{14}H_{15}N_3$	[97-56-3]	2,3′-dimethyl-4′-aminoazobenzene				
	SUB		112.5		GS	[1987SHI/OHK, 1991HOR]
$C_{14}H_{15}N_3S$	[92663-16-6]	*N*-2-(4,6-lutidyl)-*N*′-phenylthiourea				
	FUS		50.9	489.7	DSC	[2002VAL/HER]
$C_{14}H_{15}N_3S$	[71196-80-0]	*N*-2-(6-picolyl)-*N*′-2-tolylthiourea				
	FUS		44.1	468.7	DSC	[2002HER/ACK]
$C_{14}H_{15}N_3S$	[476443-76-2]	*N*-2-(6-picolyl)-*N*′-3-tolylthiourea				
	FUS		33.2	460.7	DSC	[2002HER/ACK]
$C_{14}H_{15}N_3S$	[71196-81-1]	*N*-2-(6-picolyl)-*N*′-4-tolylthiourea				
	FUS		47.2	492.2	DSC	[2002HER/ACK]
$C_{14}H_{16}$	[2717-39-7]	1,4,5,8-tetramethylnaphthalene				
	SUB		99.8 ± 1.4	298	C	[1974MAN3, 1977PED/RYL]
$C_{14}H_{16}$	[59919-41-4]	2,6-diethylnaphthalene				
	FUS		22.36	322.0	DSC	[2016SAN/OLI]
	SUB	(305–321)	93.6 ± 0.1	298	Static	[2016SAN/OLI]
	V	(305–372)	73.4 ± 0.1	298	Static	[2016SAN/OLI]
$C_{14}H_{16}$	[17872-39-8]	Heptacyclo[6.6.$0^{2,6}$.$0^{3,13}$.$0^{4,11}$.$0^{5,9}$.$0^{8,1}$.$0^{10,14}$]tetradecane				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		14.67	355		
	FUS	(5–304)	5.57	440	AC	[1994KAB/KOZ]
	SUB		79.3 ± 0.4	298	C	[1994KAB/KOZ]
	SUB	(298–349)	83.8 ± 1.2	321	ME	[1994KAB/KOZ]
	SUB	(298–349)	84.6 ± 1.2	298	ME	[1994KAB/KOZ]
$C_{14}H_{16}ClN_3O$	[67129-08-2]	2-chloro-*N*-(2,6-dimethylphenyl)-*N*-(1*H*-pyrazol-1-ylmethyl)acetamide (metazachlor)				
	FUS (I)		19.7	356.2		
	FUS (II)		23	353.2		
	FUS (III)		26.6	349.2	DSC	[2004GRI/WEI]
$C_{14}H_{16}ClN_3O_2$	[43121-43-3]	{1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)}butanone (triadimefon)				
	SUB	(298–343)	111.1 ± 2.2	303	GS	[1997DAS/DAS]
$C_{14}H_{16}ClN_3O_2$	[43121-43-3]	1-(4-chlorophenoxy)-3,3-dimethyl-(1*H*,1,2,4-triazol-1-yl)-2-butanone				
	FUS		22.87	351.4	DSC	[1990DON/DRE]
$C_{14}H_{16}F_3N_3O_4$	[26399-36-0]	*N*-(cyclopropylmethyl)-2,6-dmitro-*N*-propyl-4-(trifluoromethyl)benzenamine				
	FUS		22.51	305.8	DSC	[1990DON/DRE]
$C_{14}H_{16}N_2O_2$	[2778-42-9]	1,3-bis(1-isocyanato-1-methylethyl)benzene				
	V	(298–426)	65.2	361	HSA,T,DTA	[1986ACH/HAS]
$C_{14}H_{16}N_2O_2$	[2778-41-8]	1,4-bis(1-isocyanato-1-methylethyl)benzene				
	V	(373–428)	74.0	400	HSA,T,DTA	[1986ACH/HAS]
$C_{14}H_{16}N_2O_2S$	[108929-67-5]	4-amino-*N*-(4-ethylphenyl)benzenesulfonamide				
	FUS		36.3	436.2	DSC	[2009PER/TKA, 2014PER/KAZ]
	SUB		143.6 ± 0.9	298	GS	[2009PER/TKA]
	V		118.8	298	S–F	[2009PER/TKA]
$C_{14}H_{16}N_2O_3$	[946568-73-6]	2-*tert*-butyoxycarbonyl-3-methylquinoxaline *N*-oxide				
	SUB		140.8 ± 3.1	298	C	[2012VIV/FRE]
$C_{14}H_{16}N_2O_4$	[793716-72-0]	2-*tert*-butyoxycarbonyl-3-methylquinoxaline *N*,*N*′-dioxide				
	SUB		164.1 ± 1.8	298	C	[2007GOM/SOU]
$C_{14}H_{16}N_2O_7$	[152672-90-7]	2-methylpropanoic acid 2,3-dihydro-7-(1-methylethoxy)-3-[2-(nitrooxy)-ethyl]-4-oxo-2*H*-1,3-benzoxazin-7-yl ester				
	FUS		26	345.7	DSC	[1996FON/ROS]
$C_{14}H_{16}O_5$	[20666-86-8]	Benzoyl (3-cyclohexyloxy)carbonyl peroxide				
	SUB	(293–313)	96.2 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]
$C_{14}H_{17}ClN_2S$	[1583299-22-2]	(3-chloro-4-methylphenyl)-[3-thia-1-azabicyclo[3.3.1]non-2-ylidene]amine				
	FUS		22.7	406.6	DSC	[2014BLO/OLK]
	SUB	(376–396)	146.2 ± 1.8	386	GS	[2014BLO/OLK]
	SUB	(376–396)	150.5 ± 1.8	298	GS	[2014BLO/OLK]
$C_{14}H_{17}ClNO_4PS_2$	[10311-84-9]	*S*-[2-chloro-1-(1,3-dihydro-1,3-dioxo-2*H*-isomdol-2-yl)ethyl] *O*,*O*-diethylphosphorodithioate				
	FUS		25.27	340	DSC	[1990DON/DRE]
$C_{14}H_{17}Cl_2N_3O$	[79983-71-4]	α-butyl-α-(2,4-dichlorophenyl)-1*H*-1,2,4-triazole-1-ethanol (±)-hexaconazole				
	SUB	(318–358)	160.1	338	ME	[1997GOO]
$C_{14}H_{17}Cl_3O_3$	[2630-13-9]	Hexyl 2,4,5-trichlorophenoxyacetate				
	V	(460–573)	85.3	475	A	[1987STE/MAL]
	V	(460–573)	81.1	516		[1966JEN/SCH]
$C_{14}H_{17}N$		*N*-ethyl-1,2,3,4-tetrahydrocarbazole				
	FUS		12.41	282.4	DSC	[2016STA/KEI]
	V	(308–371)	82.8 ± 0.4	298	GS	[2015STA/EME]
$C_{14}H_{17}NO_2$	[91-44-1]	4-methyl-7-diethylaminocoumarin				
	FUS		17.88	343.8	DSC	[1996DOM/HEA, 1989ZHA/HUA]
$C_{14}H_{17}N_5O_3$	[51940-44-4]	8-ethyl-5,8-dihydro-5-oxo-2-(1-piperazinyl)pyrido[2,3-d]-pyrimidine-6-carboxylic acid (pipemidic acid)				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		32.85	529.9		[2004ROM/BUS2]
$C_{14}H_{18}$	[1079-71-6]	1,2,3,4,5,6,7,8-octahydroanthracene				
	TRS		2.51	331.4		
	FUS		18.34	345.4		[1996DOM/HEA]
	V	(437–498)	45.6	452	A	[1987STE/MAL]
	V	(348–433)	NA		IPM	[1982GAM/CAL]
$C_{14}H_{18}$	[5325-97-3]	1,2,3,4,5,6,7,8-octahydrophenanthrene				
	V	(402–570)	55.8	417	A	[1987STE/MAL]
$C_{14}H_{18}ClN_3O_2$	[70585-35-2]	(1RS,2SR)-1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)-butan-2-ol (erythro triadimenol)				
	FUS (I)		32	411.2		
	FUS (II)		33.1	406.2		
	FUS (III)		25.1	385.2	DSC	[2000BUR/VAN]
$C_{14}H_{18}ClN_3O_2$	[70585-37-4]	(1RR,2SS)-1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)-butan-2-ol (threo triadimenol)				
	FUS		33.2	406.2	DSC	[2000BUR/VAN]
$C_{14}H_{18}ClN_3O_2$	[55219-65-3]	β-(4-chlorophenoxy)-α-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol				
	FUS		24.47	377.8	DSC	[1990DON/DRE]
$C_{14}H_{18}Cl_2O_3$	[1917-95-9]	Hexyl 2,4-dichlorophenoxyacetate				
	V	(444–573)	81.3	459	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(444–573)	76.3	508	GC	[1966JEN/SCH]
$C_{14}H_{18}Cl_2O_3$	[1917-93-7]	Isohexyl 2,4-dichlorophenoxyacetate				
	V	(460–573)	69.1	475	A,GC	[1987STE/MAL, 1999DYK/SVO, 1966JEN/SCH]
	V	(460–573)	72.0	516	GC	[1966JEN/SCH]
$C_{14}H_{18}N_2$	[10075-69-1]	1,5-*N*,*N*,*N*′,*N*′-tetramethyldiaminonaphthalene				
	SUB	(318–356)	98.6 ± 0.4	298	GS	[2007VER/GEO]
$C_{14}H_{18}N_2$	[20734-58-1]	1,8-*N*,*N*,*N*′,*N*′-tetramethyldiaminonaphthalene				
	SUB	(324–364)	94.7 ± 0.8	298	GS	[2007VER/GEO]
	V	(324–364)	76.7 ± 0.4	298	GS	[2007VER/GEO]
$C_{14}H_{18}N_2O_3$	[3625-25-0]	5-bicyclo[3.2.1]oct-2-en-3-yl-5-ethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione (reposal)				
	FUS		22.7		DSC	[1982TRE/VAU]
$C_{14}H_{18}N_2O_5$	[81-14-1]	2,6-dimethyl-3,5-dmitro-4-*tert*-butylacetophenone				
	FUS		23.81	408.5	DSC	[2004QU/BAI]
	SUB	(293–353)	107.9	323	ME	[1953SER/VOI, 1960JON]
$C_{14}H_{18}N_2S$	[1583299-19-7]	(3-methylphenyl)-[3-thia-1-azabicyclo[3.3.1]non-2-ylidene]amine				
	FUS		26.5	398.5	DSC	[2014BLO/OLK]
	SUB	(353–376)	128.2 ± 1.0	365	GS	[2014BLO/OLK]
	SUB	(353–376)	131.0 ± 1.0	298	GS	[2014BLO/OLK]
$C_{14}H_{18}N_2S$	[1639369-07-5]	4-methyl-*N*-(3-thia-1-azabicyclo[3.3.1]non-2-ylidene)aniline				
	FUS		20.5	347.6	DSC	[2014SUR/PRO]
	SUB	(327–347)	99.2 ± 0.6	337	GS	[2014SUR/PRO]
	SUB	(327–347)	101.1 ± 0.6	298	GS	[2014SUR/PRO]
$C_{14}H_{18}N_4O_3$	[738-70-5]	5-[(3,4,5-trimethoxyphenyl)methyl]-2,4-pyrimidinediamine (trimethoprim)				
	FUS		47.44	475.0	DSC	[2015MAD/SWA]
	FUS		38.5	471.2	DSC	[2013AGA/MOS]
	FUS		48.4	477.4	DSC	[2012ELS/HAN]
	FUS		49.8	472.9	DSC	[2006WAS/HOL]
	FUS		53.65	474	DSC	[1998ISS/ELA]
	FUS		46.55			[1990TIM/CRA, 1985CHA]
$C_{14}H_{18}O$	[122-40-7]	α-pentylcinnamaldehyde				
	V	(282–333)	75.3	297	A,ME	[1987STE/MAL, 1955SER/VOI]
$C_{14}H_{18}O$	[30545-23-4]	Diamantanone				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		103.1 ± .62	320	TSGC	[1980CLA/KNO]
$C_{14}H_{18}O_2$	[180988-52-7]	6,6-dimethyl-1-phenyl-4,8-dioxaspiro[2.5] octane				
	FUS		27.2	351.2		[1998VER/PEN]
	SUB		97.5 ± 0.3	298		[1998VER/PEN]
$C_{14}H_{18}O_3$	[49763-96-4]	(1,*N*,*E*)-4,4-dimethyl-1-(3,4-methylenedioxyphenyl)-1-penten-3-ol (stiripentol)				
	FUS		29.0	348.2	DSC	[1991CEO/DUG]
$C_{14}H_{18}O_4$	[131-16-8]	Dipropyl phthalate				
	V	(403–578)	73.2	418	A	[1987STE/MAL]
	V		88.7			[1948SMA/SMA]
$C_{14}H_{18}O_4$	[605-45-8]	Diisopropyl phthalate				
	V	(409–482)	66.9	474	BG	[1988KAT]
	V	(409–482)	69.0	456	BG	[1988KAT]
	V	(409–482)	74.8	430	BG	[1988KAT]
	V	(409–482)	84.0	409	BG	[1988KAT]
$C_{14}H_{18}O_4$	[53188-07-1]	6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid				
	FUS	(260–475)	38.7	465.5	DSC	[2014BER/SIM]
	SUB		133.8 ± 2.5	398	C	[2014BER/SIM]
	SUB		136.9 ± 2.5	298	C	[2014BER/SIM]
$C_{14}H_{19}Cl_2NO_2$	[305-03-3]	4-[*p*-[bis(2-chloroethyl)amino]benzene]butanoic acid				
	FUS		29.18	338.9	DSC	[1990DON/DRE]
$C_{14}H_{19}NO$	[36713-33-4]	2-(dimethylamino)-1,2-diphenylethanone				
	FUS		22.38	334.2		[1994WEL/VER]
$C_{14}H_{19}NO$	[18494-61-6]	Hexahydro-1-(phenylacetyl)-1*H*-azepine				
	V	(370–418)	53.9	385	A	[1987STE/MAL, 1969DAV/MAK, 1968DAV/BAT]
	V	(371–420)	49.4	396		[1969DAV/MAK]
$C_{14}H_{19}NO_2S$	[166276-24-0]	*N*-benzoylthiocarbamic *O*-hexyl ester				
	SUB		139.7 ± 2.4	298	C	[2004RIB/SAN2]
$C_{14}H_{19}N_5O_3$	[157891-99-1]	6-*tert*-butyl-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-*a*]pyrine				
	FUS		37.95	478.5	DSC	[1999ZIE/GOL]
$C_{14}H_{20}$	[4413-16-5]	1-cyclohexyl-1-phenylethane				
	V	(359–400)	70.8	374	A,MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{20}$	[1603-61-8]	1-cyclohexyl-2-phenylethane				
	V	(372–406)	60.7	387	A,MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{20}$	[2883-12-7]	1-cyclopentyl-3-phenylpropane				
	V	(373–540)	61.3	388	A,MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{20}$	[1540-80-3]	1,8-cyclotetradecadiyne				
	FUS		22.6	370		[1974AUG/BOR]
	SUB	(315–364)	87.6 ± 1.0	338	HSA	[1998CHI/HES]
	SUB		94.3	298	CGC–DSC	[1998CHI/HES]
	SUB	(317–332)	166.0 ± 3.2	325	ME	[1964FRI/BAU, 1970COX/PIL]
$C_{14}H_{20}$	[1079-71-6]	1,2,3,4,5,6,7,8-octahydroanthracene (octhracene)				
	SUB	(438–499)	82.3 ± 1.2	298	BG	[1971BOY/SAN, 1977PED/RYL]
$C_{14}H_{20}$	[2292-79-7]	Pentacyclo[7.3.1.1^{4,7}.0^{2,7}.0^{6,11}]tetradecane (diadamantane)				
	TRS	(300–540)	4.44	407.2		
	TRS	(300–540)	8.95	440.4		
	FUS	(300–540)	8.66	517.9	AC	[1996DOM/HEA, 1978SPI/AND]
[Note: Westrum *et al.* [1978WES/MCK] report a very small thermal anomaly at 35.7 K as determined by adiabatic calorimetric measurements.]						
	SUB	(305–333)	96.0 ± 0.8	319	TSGC	[1975CLA/KNO]
	SUB		117.2 ± 8		B	[1971CAR/LAY]
$C_{14}H_{20}ClNO_2$	[15972-60-8]	2-chloro-*N*-(2,6-diethylphenyl)-*N*-(methoxymethyl)acetamide				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		26.7	317.7	DSC	[2005SBI/VEC]
	FUS		25.31	315.9	DSC	[1990DON/DRE]
	V		85 ± 1	436	TGA	[2007VEC]
$C_{14}H_{20}Cl_2$		1,2-dichloro-3,4,5,6-tetraethylbenzene				
	V	(378–575)	66.2	393	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_{14}H_{20}C_{12}$		1,4-dichloro-2,3,5,6-tetraethylbenzene				
	V	(364–570)	60.8	379	A	[1987STE/MAL, 1947STU, 1970DYK/VAN]
$C_{14}H_{20}N_2O$	[27262-40-4]	*N*-(2,6-dimethylphenyl)-2-piperidinecarboxamide				
	FUS		24.19	403.2	DSC	[1997NEM/ACS]
$C_{14}H_{20}N_2OS$	[90473-84-0]	*N*-(diethylaminothiocarbonyl)benzimido ethyl ester				
	SUB		135.6 ± 2.6	298	C	[2006RIB/SAN3]
$C_{14}H_{20}N_2O_2$	[26328-11-0]	(−)-1-(1*H*-indol-4-yloxy)-3-(isopropylamino)-2-propanol (pindolol)				
	FUS		25.69	365.7	DSC	[1999LI/ZEL, 1993NEA/SHI]
$C_{14}H_{20}N_2O_2$	[13523-86-9]	(±)-1-(1*H*-indol-4-yloxy)-3-(isopropylamino)-2-propanol (pindolol)				
	FUS		58.0	442.9	DSC	[2010CAN/CAS]
	FUS		60.6	423.6	DSC	[2007PER/VOL]
	FUS		58.0	443.8		[2004NUN/EUS]
	FUS		57.9	442.9	DSC	[1999LI/ZEL, 1993NEA/SHI]
	SUB	(355–427)	146.0 ± 1.2	298	GS	[2007PER/VOL]
$C_{14}H_{20}N_3O_5PS$	[13457-18-6]	*O*-6-ethoxycarbonyl-5-methylpyrazolo[1,5-*a*]pyrimidin-2-yl *O*,*O*-diethyl phosphorothioate				
	FUS		27.32	324.4	DSC	[1990DON/DRE]
$C_{14}H_{20}O$	[61812-55-3]	(1-cyclohexyloxyethyl)benzene				
	V	(286–338)	69.8 ± 0.5	298	GS	[2002KRA/VAS, 2002VER/HEI]
$C_{14}H_{20}O$	[30545-14-3]	Diamantan-1-ol				
	TRS		18.0	395		
	TRS		4.9	408		
	FUS		9.6	573	DSC	[1974CLA/MCK]
	SUB	(319–349)	118. ± 0.6	334		[1980CLA/KNO, 1975CLA/KNO]
$C_{14}H_{20}O$	[30545-24-5]	Diamantan-3-ol				
	SUB	(323–354)	116.1 ± 4.4	338		[1980CLA/KNO, 1975CLA/KNO]
$C_{14}H_{20}O$	[30651-03-7]	Diamantan-4-ol				
	TRS		9.77	448		
	FUS		16.4	484	DSC	[1974CLA/MCK]
	SUB	(322–353)	117.8 ± 0.2	337		[1980CLA/KNO, 1975CLA/KNO]
$C_{14}H_{20}O_2$	[3383-21-9]	3,5-di-*tert*-butyl-*o*-benzoquinone				
	FUS		26.21	388.5	DSC	[2016PAS/ABA]
	FUS		26.53	387.9	DSC	[2005FAT/KAS]
	SUB		106.1 ± 1.3	298	C	[2005FAT/KAS]
$C_{14}H_{20}O_2$	[34105-76-5]	3,6-di-*tert*-butyl-*o*-benzoquinone				
	FUS		27.98	475.3	DSC	[2016PAS/ABA]
$C_{14}H_{20}O_2$	[38350-87-7]	4-heptylbenzoic acid				
	SUB	(353–369)	130.0 ± 0.9	298	ME	[2004MON/ALM]
$C_{14}H_{20}O_2$	[950-99-2]	2,2,5,7,8-pentamethylchroman-6-ol				
	FUS	(260–380)	27.0	367.5	DSC	[2014BER/SIM]
	SUB	(331–352)	105.8 ± 1.6	341	ME	[2014BER/SIM]
	SUB	(331–352)	107.3 ± 1.6	298	ME	[2014BER/SIM]
	SUB		105.9 ± 0.9	341	C	[2014BER/SIM]
	SUB		107.4 ± 0.9	298	C	[2014BER/SIM]
$C_{14}H_{20}O_2$	[6290-37-5]	Phenethyl hexanoate				
	V		78.8 ± 1.5	298	CGC	[2015KOZ/GOB]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{20}O_3$		2-(4-*tert*-butylphenoxy)ethyl acetate				
	V	(391–578)	78.8	406	A	[1987STE/MAL, 1947STU]
$C_{14}H_{20}O_3$	[15872-42-1]	4-heptyloxybenzoic acid				
	SUB	(355–361)	155.1 ± 1.0	358	ME	[2010FON/SAN]
	SUB	(355–361)	157.2 ± 1.2	298	ME	[2010FON/SAN]
$C_{14}H_{20}O_4$	[58608-07-4]	2,5-dibutoxy-1,4-benzoquinone				
	TRS		4.7	328.3		
	TRS		2.3	364.5		
	FUS		31.5	473.3	DSC	[1996KEE/VAN]
$C_{14}H_{20}O_5$	[14098-44-3]	benzo-15-crown-5				
	FUS		28.3	351.2	DSC	[2000NIC/ORF]
	SUB		128.1 ± 10.8	298	CGC–DSC	[2000NIC/ORF]
	V		98.9 ± 1.3	298	CGC	[2000NIC/ORF]
$C_{14}H_{21}F_3N_2O_4$	[2768-49-2]	Proline, 1-[*N*-(trifluoroacetyl)-(l)-leucyl]methyl ester				
	SUB	(313–366)	121.3	328	A	[1987STE/MAL, 1960WEY/KLI]
	V	(366–453)	105.8	381	A	[1987STE/MAL, 1960WEY/KLI]
$C_{14}H_{21}F_9O$	[1240205-63-3]	1-[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]octane				
	FUS		19.65	237.8	DSC	[2010ZAG/CON]
$C_{14}H_{21}N$	[861622-66-4]	*N*-ethyloctahydrocarbazole				
	FUS		20.58	316.0	DSC	[2016STA/KEI]
	V	(324–366)	81.9 ± 0.5	298	GS	[2015STA/EME]
$C_{14}H_{21}NO$	[121678-88-4]	4-isopropylbenzylidene *tert*-butylamine *N*-oxide				
	SUB		101.8 ± 4.1	298	C	[1989ACR/KIR]
$C_{14}H_{21}N_3O_3S$	[1156-19-0]	*N*-[(azepan-1-ylamino)carbonyl]-4-methylbenzenesulfonamide (tolazamide)				
	FUS (I)		38.4	444		
	FUS (II)		37.9	444	DSC	[2015BOL/ARK]
	FUS		43.44	445	DSC	[2010BAI/VAN]
$C_{14}H_{21}N_3O_4$	[33629-47-9]	4-(1,1-dimethylethyl)-*N*-(1-methylpropyl)-2,6-dinitrobenzeneamine				
	FUS		20.84	338.8	DSC	[1990DON/DRE]
$C_{14}H_{21}N_3S$	[90473-92-0]	*N*-(diethylaminothiocarbony)-*N*-monoethylbenzamide				
	SUB		141.2 ± 1.2	298	C	[2006RIB/SAN3]
$C_{14}H_{22}$	[1012-72-2]	1,4-di-*tert*-butylbenzene				
	TRS		14.4	350.7	AC, DSC	[2009CHI/STE]
	FUS		8.2	350.8	AC, DSC	[2009CHI/STE]
	FUS		22.48	341.5		[1997STE/CHI3]
	SUB	(288–333)	82.1 ± 0.4	310	GS	[1998VER]
	SUB		82.8 ± 0.4	298		[1998VER]
	SUB	(285–325)	82.8	305	ME	[1951HOP/SEA, 1987STE/MAL]
	V	(319–559)	63.0 ± 0.1	298	EB,IPM	[2009CHI/STE]
	V	(319–559)	55.8 ± 0.1	360	EB,IPM	[2009CHI/STE]
	V	(319–559)	54.6 ± 0.1	400	EB,IPM	[2009CHI/STE]
	V	(319–559)	61.4 ± 0.1	440	EB,IPM	[2009CHI/STE]
	V	(319–559)	46.4 ± 0.2	480	EB,IPM	[2009CHI/STE]
	V	(319–559)	44.6 ± 0.3	520	EB,IPM	[2009CHI/STE]
	V	(354–382)	61.4 ± 0.3	298	GS	[2008VER/KOZ2]
	V	(387–559)	63.0 ± 0.6	298	EB	[1997STE/CHI3]
$C_{14}H_{22}$	[1014-60-4]	1,3-di-*tert*-butylbenzene				
	V	(288–333)	58.9 ± 0.5	310	GS	[1998VER]
	V		59.6 ± 0.5	298		[1998VER]
	V	(346–374)	58.0	360	A	[1987STE/MAL]
$C_{14}H_{22}$	[2189-60-8]	Octylbenzene				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		29.96	234.2		[1996DOM/HEA, 1948TSC]
	V	(293–462)	67.4	308		[1993KAS/MOK]
	V	(368–400)	63.1	383	A	[1987STE/MAL]
	V	(316–399)	66.2	336	GS	[1986ALL/JOS]
$C_{14}H_{22}$	[777-22-0]	2-phenyloctane				
	V	(361–392)	61.6	376	A	[1987STE/MAL]
	V		70.0	298		[1971WIL/ZWO]
$C_{14}H_{22}$	[642-32-0]	1,2,3,4-tetraethylbenzene				
	V	(423–525)	62.6	438	A	[1987STE/MAL]
$C_{14}H_{22}$	[38842-05-6]	1,2,3,5-tetraethylbenzene				
	V	(413–521)	64.8	428	A	[1987STE/MAL]
$C_{14}H_{22}$	[635-81-4]	1,2,4,5-tetraethylbenzene				
	V	(338–521)	54.5	353	A	[1987STE/MAL]
$C_{14}H_{22}N_2O$	[137-58-6]	2-(diethylamino)-*N*-(2,6-dimethylphenyl)acetamide (lidocaine)				
	FUS		15.5	343.1	DSC	[2013MAH/MAN]
	FUS		16.7	341	DSC	[2010BAI/VAN]
	FUS		16.9	341.8	DSC	[2010COR/NEG]
	FUS		16.4	340.7	DSC	[2010LAZ/RIE]
	FUS		18.8	341	DSC	[2008WAS/HOL]
	FUS		16.78	341.5	DSC	[2007RAM]
$C_{14}H_{22}N_2O_2S$	[451472-11-0]	*N*,*N*-diisobutyl-*N*′-furoylthiourea				
	SUB		141.7 ± 5.6	298	C	[2002RIB/RIB]
$C_{14}H_{22}N_2O_3$	[56715-13-0]	(+)-4-[2′-hydroxy-3′-(isopropylamino)propoxy]-phenylacetamide (atenolol)				
	FUS		36.77	420.3	DSC	[1999LI/ZEL]
$C_{14}H_{22}N_2O_3$	[29122-68-7]	(±)-4-[2′-hydroxy-3′-(isopropylamino)propoxy]-phenylacetamide (atenolol)				
	FUS		37.6	425.9	DSC	[2014SAI/MUR]
	FUS		37.5	426	DSC	[2010BAI/VAN]
	FUS		36.6	424.5	DSC	[2010DOM/POB]
	FUS		36.5	427.9	DSC	[2010CAN/CAS]
	FUS		38.7	426.1	DSC	[2007PER/VOL]
	FUS		35.66	423.4	DSC	[1999LI/ZEL]
	SUB	(396–418)	140.0 ± 3.7	298	GS	[2007PER/VOL]
$C_{14}H_{22}N_4O_2$	[35873-43-9]	8-heptyltheophylline				
	FUS		33	472.7	DSC	[1991ACR, 1989GON/KRA]
$C_{14}H_{22}N_4O_6$	[74734-25-1]	*N*,*N*′-bis(2-oxo-3-oxazolidm-3-ylcarbonyl)-1,6-hexandiamine				
	FUS		8.9	400.8	DSC	[1990SHI/HAY]
$C_{14}H_{22}N_4O_6S$	[19044-94-1]	4-(dipropylammo)-*N*,*N*-dimethyl-3,5-dinitrobenzenesulfonamide				
	FUS		32.57	413.6	DSC	[1990DON/DRE]
$C_{14}H_{22}O$	[96-76-4]	2,4-di-*tert*-butylphenol				
	SUB	(288–327)	86.1 ± 0.3	308	GS	[1999VER2]
	SUB	(288–327)	86.7 ± 0.3	298	GS	[1999VER2]
	SUB		92.9 ± 2.8	298	C	[1999RIB/MAT2]
	V	(333–368)	69.2 ± 0.5	350	GS	[1999VER2]
	V	(333–368)	72.4 ± 0.5	298	GS	[1999VER2]
	V	(403–537)	60.1	418	A	[1987STE/MAL]
$C_{14}H_{22}O$	[128-39-2]	2,6-di-*tert*-butylphenol				
	FUS		16.57	310.7	DTA	[1972INO/LIA]
	SUB		84.6 ± 0.5	298	GS	[1999VER]
	SUB		81.5 ± 2.3	298	C	[1999RIB/MAT2]
	SUB		U110.9	298	C	[1971BER/GIR, 1999VER]
	V	(313–368)	63.5 ± 0.2	341	GS	[1999VER]
	V		66.0 ± 0.2	298		[1999VER]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(386–530)	60.4	401	A	[1987STE/MAL]
$C_{14}H_{22}O$	[1138-52-9]	3,5-di-*tert*-butylphenol				
	SUB		97.7 ± 3.7	298	C	[2001RIB/MAT]
	SUB	(302–325)	68.2	313.5	A	[1987STE/MAL]
$C_{14}H_{22}O$	[63264-81-3]	4-(1,1-diethylbutyl)phenol				
	V	(404–549)	69.5	419	A	[1987STE/MAL]
$C_{14}H_{22}O$	[65152-07-0]	2,4-diisobutylphenol				
	V	(448–598)	65.0	463	A	[1987STE/MAL]
$C_{14}H_{22}O$	[59048-99-6]	4-[(1,2-dimethyl-1-ethyl)butyl]phenol				
	V	(415–578)	64.7	430	A	[1987STE/MAL]
$C_{14}H_{22}O$	[855412-93-0]	4-[(1,3-dimethyl-1-ethyl)butyl]phenol				
	V	(409–571)	60.9	424	A	[1987STE/MAL]
$C_{14}H_{22}O$		4-[(2,2-dimethyl-1-ethyl)butyl]phenol				
	V	(413–553)	67.0	428	A	[1987STE/MAL]
$C_{14}H_{22}O$	[79-70-9]	β-irone				
	V	(288–333)	72.1	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[127-51-5]	α-isomethylionone				
	V	(288–333)	69.5	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[1988-35-8]	4-(1-methyl-1-ethyl)pentyl]phenol				
	V	(413–578)	62.8	428	A	[1987STE/MAL]
$C_{14}H_{22}O$	[127-42-4]	α-methylionone				
	V	(288–333)	70.1	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[127-43-5]	β-methylionone				
	V	(288–333)	70.3	303	A	[1987STE/MAL]
$C_{14}H_{22}O$	[140-66-9]	4-(1,1,3,3-tetramethylbutyl)phenol				
	V	(309–350)	68.8 ± 0.3	329	GS	[1999VER2]
	V		70.7 ± 0.3	298	GS	[1999VER2]
	V	(381–563)	72.4	396	A	[1987STE/MAL, 1959MCD/SHR, 1984BOU/FRI]
$C_{14}H_{22}O$	[124765-79-3]	4-*tert*-octylphenol				
	SUB	(297–351)	96.3 ± 0.9	324	GS	[1999VER2]
	SUB	(297–351)	97.9 ± 0.9	298	GS	[1999VER2]
$C_{11}H_{22}O_2$	[1020-31-1]	3,5-di-*tert*-butyl-1,2-dihydroxybenzene				
	FUS		24.1	372.8		[2000VER/SCH]
	SUB		103.7 ± 0.5	330	GS	[2000VER/SCH]
	SUB		104.7 ± 0.5	298	GS	[2000VER/SCH]
	SUB		100.1 ± 0.6	298	C	[1984CAR]
$C_{14}H_{22}O_2$	[88-58-4]	2,5-di-*tert*-butyl-1,4-dihydroxybenzene				
	FUS		44.44	494.05	DSC	[2015ZHA/LIU]
	FUS		43.85	496.5	DSC	[1999VER7]
	SUB	(333–368)	108.8 ± 1.7	351	GS	[1999VER7]
	SUB	(333–368)	122.4 ± 1.7	298	GS	[1999VER7]
$C_{14}H_{22}O_4$	[620-82-6]	Dicyclohexyl oxalate				
	V	(333–360)	92.1 ± 0.7	298	GS	[2008LIP/KRA]
$C_{14}H_{22}O_6$	[1561-49-5]	Dicyclohexyl peroxydicarbonate				
	SUB		100.4 ± 4.2			[1971KIP/RAB, 1977STE/WAT]
	SUB	(293–313)	100.4 ± 8.3	303	ME	[1962RAB/TEL, 1970COX/PIL]
$C_{14}H_{22}O_{11}$	[5334-84-9]	Diethylenelglycol, *O*,*O*-dicarboxylic acid, di[1-(methoxycarbonyl)-ethyl] ester				
	V	(403–493)	98.2	418	A	[1987STE/MAL, 1949REH/DIX]
$C_{14}H_{23}N$	[29772-98-3]	*N*,*N*-dimethyl-2,3-dimethyl-3-phenyl-2-butanamine				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(280–335)	65.8 ± 1.3	308	GS	[1998VER/BEC]
	V	(280–335)	66.4 ± 1.3	298	GS	[1998VER/BEC]
$C_{14}H_{23}NO_2$	[3578-07-2]	Decyl-α-cyanoacrylate				
	FUS	(10–330)	41.8	294.5	AC	[1993BYK/KIP]
$C_{14}H_{24}$	[5743-97-5]	Perhydrophenanthrene				
	V	(455–551)	55.7	470	EB	[2000ROH/CEN]
$C_{14}H_{24}$	[28071-99-0]	*trans-anti-trans*-perhydroanthracene				
	SUB	(269–313)	66.1	284	A	[1987STE/MAL]
	SUB	(275–313)	72.7 ± 3.3	294	ME	[1963MAR/FRI, 1970COX/PIL]
$C_{14}H_{24}$	[1755-19-7]	*trans-syn-trans*-perhydroanthracene				
	SUB	(293–335)	88.1	308	A	[1987STE/MAL]
	SUB	(335–393)	87.4 ± 2.4	365	ME	[1963MAR/FRI, 1970COX/PIL]
$C_{14}H_{24}$	[1687-36-1]	1,3,5,7-tetramethyladamantane				
	SUB	(310–350)	83.7 ± 1.3	298	BG	[1977STE/WAT]
	SUB	(295–315)	81.1 ± 10.9	305	TSGC	[1975CLA/KNO]
$C_{14}H_{24}$	[27389-73-7]	*cis-anti-trans*-perhydrophenanthrene				
	FUS		11.16	313		[1996DOM/HEA, 1982NUZ]
$C_{14}H_{24}$	[27425-35-0]	*cis-syn-trans*-perhydrophenanthrene				
	FUS		10.48	273		[1996DOM/HEA, 1982NUZ]
$C_{14}H_{24}$	[2108-89-6]	*trans-anti-trans*-perhydrophenanthrene				
	FUS		11.83	283		[1996DOM/HEA, 1982NUZ]
$C_{14}H_{24}$	[1687-36-1]	1,3,5,7-tetramethyladamantane				
	TRS		0.23	183.3		
	FUS		9.82	337.2	DSC	[1977CLA/KNO]
	SUB		81.1 ± 0.9	298		[1979CLA/KNO]
$C_{14}H_{24}NO_4PS_3$	[741-58-2]	*O*,*O*-diisopropyl *S*-2-phenylsulfonylaminoethylphosphorodithioate				
	FUS		30.61	310.4	DSC	[1990DON/DRE]
$C_{14}H_{24}N_2$	[101-96-2]	*N*,*N*′-di-*sec*-butyl-1,4-phenylenedianmine				
	V	(370–507)	70.3	385	A	[1987STE/MAL]
$C_{14}H_{24}N_2$	[7735-44-6]	Tetradecanedinitrile				
	TRS		1.77	261.1		
	FUS		40.17	309.6	DSC	[2007BAD/BLA]
$C_{14}H_{24}O$	[53131-20-7]	2,2,5,9-tretamethyl-4,8-decanedienal				
	V	(353–416)	66.4	368	A	[1987STE/MAL, 1974VOI/SHC]
$C_{14}H_{14}O_2$	[13109-70-1]	Borneol butyrate				
	V	(347–520)	59.6	362	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O_2$	[24717-86-0]	(*dl*)-borneol isobutyrate				
	V	(343–516)	58.8	358	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O_2$	[106-29-6]	Geraniol butyrate				
	V	(369–531)	68.6	384	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O_2$	[2345-26-8]	Geraniol isobutyrate				
	V	(363–524)	67.8	378	A	[1987STE/MAL, 1947STU]
$C_{14}H_{24}O_2$	[38300-49-1]	1,8-cyclotetradecanedione				
	FUS		27.53	417.2		[1972ALV/BOR]
$C_{14}H_{24}O_4$		1,6-cyclodecanedione bis(ethylene ketal)				
	FUS		32.68	450.2		[1972ALV/BOR]
$C_{14}H_{24}O_6$	[3272-32-0]	1,1,1-tris(ethoxy carbonyl)pentane				
	V	(298–343)	81.4 ± 0.4		GS	[1995RAK/VER]
$C_{14}H_{25}N$	[146900-30-3]	*N*-ethyl-dodecahydrocarbazole				
	V		68.4 ± 0.5	298	GS	[2012VER/EME3]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{26}$	[638-60-8]	2-tetradecyne				
	V	(458–491)	57.1	473		[1986ELV/KUD]
$C_{14}H_{26}$	[60212-32-0]	3-tetradecyne				
	V	(455–494)	56.3	470		[1986ELV/KUD]
$C_{14}H_{26}$	[60212-32-0]	5-tetradecyne				
	V	(453–490)	55.5	468		[1986ELV/KUD]
$C_{14}H_{26}$	[3730-08-3]	6-tetradecyne				
	V	(461–484)	55.6	473		[1986ELV/KUD]
$C_{14}H_{26}$	[35216-11-6]	7-tetradecyne				
	V	(478–505)	53.6	491		[1986ELV/KUD]
$C_{14}H_{26}$	[2883-07-0]	1-cyclohexyl-3-cyclopentylpropane				
	V	(371–403)	64.5	386	A	[1987STE/MAL]
$C_{14}H_{26}$	[2319-61-1]	1,1-dicyclohexylethane				
	V	(370–402)	62.1	385	A	[1987STE/MAL]
$C_{14}H_{26}$	[3321-50-4]	1,2-dicyclohexylethane				
	V	(371–402)	65.4	386	A	[1987STE/MAL]
$C_{14}H_{26}N_2$	[42032-30-4]	1-decyl-2-methylimidazole				
	V	(343–383)	91.8 ± 0.4	298	GS	[2011EME/POR2]
$C_{14}H_{26}O$	[53965-17-6]	*cis*-2,2,5,9-tetramethyl-4,8-decadiene-1-ol				
	V	(363–393)	94.0	378	A	[1987STE/MAL, 1974VOI/SHC]
$C_{14}H_{26}O$	[53965-18-7]	*trans*-2,2,5,9-tetramethyl-4,8-decadiene-1-ol				
	V	(363–393)	86.3	378	A	[1987STE/MAL, 1974VOI/SHC]
$C_{14}H_{26}O$	[3021-89-4]	2-pentyl-2-nonenal				
	V	(384–553)	65.7	399		[1987MIL/FEN2]
$C_{14}H_{26}O$	[142628-55-5]	(*Z*)-2-tetradecenal				
	V	(353–393)	82.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[51534-36-2]	(*E*)-2-tetradecenal				
	V	(353–393)	82.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-51-2]	(*Z*)-3-tetradecenal				
	V	(353–393)	79.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-50-1]	(*E*)-3-tetradecenal				
	V	(353–393)	80.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[115018-49-0]	(*Z*)-4-tetradecenal				
	V	(353–393)	79.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[115018-39-8]	(*E*)-4-tetradecenal				
	V	(353–393)	79.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[63851-42-3]	(*Z*)-5-tetradecenal				
	V	(353–393)	78.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-52-3]	(*E*)-5-tetradecenal				
	V	(353–393)	79.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-53-4]	(*Z*)-6-tetradecenal				
	V	(353–393)	78.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-54-5]	(*E*)-6-tetradecenal				
	V	(353–393)	79.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[65128-96-3]	(*Z*)-7-tetradecenal				
	V	(353–393)	78.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[37011-96-4]	(*E*)-7-tetradecenal				
	V	(353–393)	79.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[169054-69-7]	(*Z*)-8-tetradecenal				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(353–393)	78.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-55-6]	(*E*)-8-tetradecenal				
	V	(353–393)	79.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[53939-27-8]	(*Z*)-9-tetradecenal				
	V	(353–393)	79.1	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[71377-13-4]	(*E*)-9-tetradecenal				
	V	(353–393)	79.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[144525-16-6]	(*Z*)-10-tetradecenal				
	V	(353–393)	79.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[148238-39-5]	(*E*)-10-tetradecenal				
	V	(353–393)	79.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[35237-64-0]	(*Z*)-11-tetradecenal				
	V	(353–393)	80.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[35746-21-5]	(*E*)-11-tetradecenal				
	V	(353–393)	80.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[174155-56-7]	(*Z*)-12-tetradecenal				
	V	(353–393)	80.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[124499-92-9]	(*E*)-12-tetradecenal				
	V	(353–393)	80.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O$	[99914-84-8]	2-(1,2-dimethylpropyl)-5,6-dimethylheptenal				
	V	(385–535)	60.0	400	EB	[1987MIL/FEN2]
$C_{14}H_{26}O$	[3021-89-4]	2-pentyl-2-nonenal				
	V	(385–553)	65.0	409	EB	[1987MIL/FEN2]
$C_{14}H_{26}O$	[295-17-0]	Cyclotetradecanone				
	SUB		80.75			[1938WOL/WEG, 1960JON]
$C_{14}H_{26}O$	[37608-02-9]	4,4,8,8-tetramethylcyclodecanone				
	FUS		16.32	378.2		[1976BOR/DAL]
$C_{14}H_{26}O_2$	[3179-47-3]	Decyl methacrylate				
	FUS		30.55	250.7	AC	[1996DOM/HEA, 1985KAR/ABD]
	V	(350–541)	62.7	365	A	[1987STE/MAL]
$C_{14}H_{26}O_2$	[84801-15-0]	(*Z*)-2-dodecenyl acetate				
	V	(333–378)	79.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[84801-16-1]	(*E*)-2-dodecenyl acetate				
	V	(333–378)	81.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-24-5]	(*Z*)-3-dodecenyl acetate				
	V	(333–378)	79.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[56218-63-4]	(*E*)-3-dodecenyl acetate				
	V	(333–378)	79.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-25-6]	(*Z*)-4-dodecenyl acetate				
	V	(333–378)	78.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-26-7]	(*E*)-4-dodecenyl acetate				
	V	(333–378)	79.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16676-96-3]	(*Z*)-5-dodecenyl acetate				
	V	(333–378)	79.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16676-97-4]	(*E*)-5-dodecenyl acetate				
	V	(333–378)	80.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16974-12-2]	(*Z*)-6-dodecenyl acetate				
	V	(333–378)	79.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{26}O_2$	[29868-16-4]	(*E*)-6-dodecenyl acetate				
	V	(333–378)	80.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[14959-86-5]	(*Z*)-7-dodecenyl acetate				
	V	(333–378)	79.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(303–317)	77.5	310	GC	[1983OLS/JON]
$C_{14}H_{26}O_2$	[16695-41-3]	(*E*)-7-dodecenyl acetate				
	V	(333–378)	80.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[28079-04-1]	(*Z*)-8-dodecenyl acetate				
	V		79.3 ± 5.4	298	CGC	[2016GOO/HAS]
	V	(333–378)	80.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[38363-29-0]	(*E*)-8-dodecenyl acetate				
	V	(333–378)	80.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[16974-11-1]	(*Z*)-9-dodecenyl acetate				
	V	(333–378)	80.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[35148-19-7]	(*E*)-9-dodecenyl acetate				
	V	(333–378)	81	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[35148-20-0]	(*Z*)-10-dodecenyl acetate				
	V	(333–378)	81.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_2$	[35153-09-4]	(*E*)-10-dodecenyl acetate				
	V	(333–378)	81.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{14}H_{26}O_3$	[5963-13-3]	1,7-dioxa-8-cyclohexadecanone				
	V	(403–453)	73.3	418	A	[1987STE/MAL]
$C_{14}H_{26}O_3$	[23144-23-2]	3-heptyl-4-acetoxytetrahydro-2*H*-pyran				
	V	(383–453)	74.4	398	A	[1987STE/MAL]
$C_{14}H_{26}O_3$	[872803-07-1]	Nonyl levulinate				
	V	(423–571)	69.4	438	A	[1987STE/MAL]
	V		68.4	516		[1933COW/SCH]
$C_{14}H_{26}O_4$	[821-38-5]	1,14-tetradecanedioic acid				
	FUS + TRS		56.9	398	DSC	[2006VEN/MET]
	FUS		56.5	397.3	DSC	[2005ROU/TEM]
	V	(424–503)	127.4 ± 2.3	298	CGC	[2005ROU/TEM]
$C_{14}H_{26}O_4$	[105-99-7]	Dibutyl adipate				
	V	(314–373)	84.2	349	GS	[2011LIP/KRA]
	V	(314–373)	88.5 ± 0.5	298	GS	[2011LIP/KRA]
	V	(435–563)	68.7	450	A	[1987STE/MAL]
	V	(435–563)	96.9	298		[1987STE/MAL, 2011LIP/KRA]
$C_{14}H_{26}O_4$	[20270-53-5]	di-*tert*-butyl adipate				
	V	(323–366)	74.3 ± 0.3	298	GS	[2011POR/KRA]
$C_{14}H_{26}O_4$		Diethyl ethyl(isopentyl)malonate				
	V	(388–526)	75.3	403	A	[1987STE/MAL]
$C_{14}H_{26}O_4$	[77-24-7]	2-methylheptane-5,5-dicarboxylic acid, diethyl ester				
	V	(394–427)	70.1	409	A	[1987STE/MAL]
$C_{14}H_{26}O_4$	[110-40-7]	Diethyl decanedioate				
	V	(398–579)	74.1	413	A	[1987STE/MAL, 1947STU]
$C_{14}H_{26}O_5$		Ethyl[1-(1-octyloxycarbonyl)ethyl]carbonate				
	V	(413–513)	74.0	428	A	[1987STE/MAL, 1950REH/DIX2]
$C_{14}H_{26}O_5$	[902261-33-0]	Hexyl[1-(1-butoxycarbonyl)ethyl]carbonate				
	V	(357–501)	72.1	372	A	[1987STE/MAL, 1950REH/DIX2]
$C_{14}H_{26}O_6S$	[5423-27-8]	Dibutyl 3,3′-sulfonyldipropionate				
	FUS		31.4	344	DSC	[1994WAN/KUO]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{27}N$	[629-63-0]	Myristonitrile				
	V	(327–369)	84.2 ± 0.2	298	GS	[2005EME/VER]
	V	(391–580)	71.4	406	A	[1987STE/MAL]
	V		85.3 ± 0.5	298	C	[1977STRI/SUN]
$C_{14}H_{27}NO_3$	[7596-88-5]	*N*-dodecanoylglycine				
	TRS + FUS		32.7	388.8	DSC	[2014RED/KRO]
	FUS		48.4	393.1	DSC	[1986MIY/MAT]
$C_{14}H_{27}NO_3$	[14379-35-2]	*N*-octanoyl-(*L*)-leucine				
	TRS		7.6	357.1		
	FUS		29.3	398.1	DSC	[1986MIY/MAT]
$C_{14}H_{27}NO_3$	[107396-11-2]	*N*-octanoyl-(*DL*)-leucine				
	TRS		6.8	353.6		
	FUS		27.2	367.1	DSC	[1986MIY/MAT]
$C_{14}H_{28}$	[295-17-0]	Cyclotetradecane				
	TRS		16.5	321.9		
	FUS		9.3	329.3	DSC	[1987DRO/MOL, 1987DRO/ROT, 1987DRO/EME]
	FUS		28.7	328		[1970BOR/DAL]
	SUB		95.6	298	CGC–DSC	[1998CHI/HES]
	SUB	(300–321)	97.9 ± 1.7	310	HSA	[1992CHI/HES]
	SUB	(295–307)	134.8 ± 1.5	301	ME	[1964FRI/BAU, 1970COX/PIL]
	SUB	(285–290)	89.3 ± 0.4	287	TM	[1955ENG]
	V		62.3 ± 0.2	343		[1992CHI/HES]
	V		65.3 ± 0.2	298		[1992CHI/HES]
$C_{14}H_{28}$		3-*tert*-butyl-1-methyl-4-isopropylcyclohexane				
	V	(329–505)	53.8	344	A	[1987STE/MAL]
$C_{14}H_{28}$	[2883-05-8]	(1-methylheptyl)cyclohexane				
	V	(364–397)	60.4	379	A	[1987STE/MAL]
$C_{14}H_{28}$	[1795-15-9]	Octylcyclohexane				
	V	(367–399)	62.7	382	A	[1987STE/MAL]
	V		69.8	298		[1971WIL/ZWO]
$C_{14}H_{28}$	[2882-98-6]	Nonylcyclopentane				
	V		70.7	298		[1971WIL/ZWO]
$C_{14}H_{28}$	[1120-36-1]	1-tetradecene				
	V		70.2	298		[1971WIL/ZWO]
	V	(430–527)	56.5	445	A	[1987STE/MAL, 1955CAM/ROS]
$C_{14}H_{28}$	[54845-26-0]	2,2,3,5,5,6,6-heptamethyl-3-heptene				
	V	(303–355)	51.2	318	A,MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{28}$	[4789-35-9]	*trans*-1,4-di-*tert*-butylcyclohexane				
	FUS		17.15	363.2		[1968VAN/HOE]
$C_{14}H_{28}$	[4789-34-8]	*cis*-1,4-di-*tert*-butylcyclohexane				
	FUS		8.79	293.2		[1968VAN/HOE]
$C_{14}H_{28}N_2O_2$	[163678-36-2]	Tetrapropyloxamide				
	FUS		21.0	317.2	TGA,DSC	[2003CLO/JAN]
	V		67.0	489	TGA, DSC	[2003CLO/JAN]
$C_{14}H_{28}N_2O_2$	[61382-93-2]	Tetradecandiamide				
	FUS		77.45	469.3	DSC	[2006BAD/DEL]
$C_{14}H_{28}O$	[5770-04-7]	1-octylcyclohexanol				
	V	(373–403)	105.6	388	A	[1987STE/MAL]
$C_{14}H_{28}O$	[75039-85-9]	(*Z*)-2-tetradecen-1-ol				
	V	(353–393)	101.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{28}O$	[75039-86-0]	(*E*)-2-tetradecen-1-ol				
	V	(353–393)	101.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[68892-27-3]	(*Z*)-3-tetradecen-1-ol				
	V	(353–393)	99.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[68900-86-7]	(*E*)-3-tetradecen-1-ol				
	V	(353–393)	99.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[40642-41-9]	(*Z*)-4-tetradecen-1-ol				
	V	(353–393)	100.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[59101-24-5]	(*E*)-4-tetradecen-1-ol				
	V	(353–393)	100.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[40642-42-0]	(*Z*)-5-tetradecen-1-ol				
	V	(353–393)	100.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[62936-14-5]	(*E*)-5-tetradecen-1-ol				
	V	(353–393)	100.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[68760-63-4]	(*Z*)-6-tetradecen-1-ol				
	V	(353–393)	100	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[68760-62-3]	(*E*)-6-tetradecen-1-ol				
	V	(353–393)	100.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[40642-43-1]	(*Z*)-7-tetradecen-1-ol				
	V	(353–393)	99.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[37011-95-3]	(*E*)-7-tetradecen-1-ol				
	V	(353–393)	100.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[64470-32-2]	(*Z*)-8-tetradecen-1-ol				
	V	(353–393)	100.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[64437-34-9]	(*E*)-8-tetradecen-1-ol				
	V	(353–393)	101.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[35153-15-2]	(*Z*)-9-tetradecen-1-ol				
	V	(353–393)	100.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[52957-16-1]	(*E*)-9-tetradecen-1-ol				
	V	(353–393)	101	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[57393-02-9]	(*Z*)-10-tetradecen-1-ol				
	V	(353–393)	101.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[64437-35-0]	(*E*)-10-tetradecen-1-ol				
	V	(353–393)	101.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[34010-15-6]	(*Z*)-11-tetradecen-1-ol				
	V	(353–393)	101.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[35153-18-5]	(*E*)-11-tetradecen-1-ol				
	V	(353–393)	101.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[70711-48-7]	(*Z*)-12-tetradecen-1-ol				
	V	(353–393)	102.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[70711-49-8]	(*E*)-12-tetradecen-1-ol				
	V	(353–393)	102.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{14}H_{28}O$	[2345-27-9]	2-tetradecanone				
	FUS		49.12	306.7	DSC	[1996DOM/HEA, 1979SUN/SVE2]
	SUB		130.9 ± 0.5	298	C	[1979SUN/SVE2]
	V	(411–560)	65.6	426	A	[1987STE/MAL]
	V	(549–643)	55.6	564	A	[1987STE/MAL]
	V		82.1 ± 0.6	298	S–F	[1979SUN/SVE2]
	V	(412–643)	51.6	556		[1975AMB/ELL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(372–551)	64.4	387	A	[1987STE/MAL, 1947STU]
$C_{14}H_{28}O$	[6137-34-4]	7-tetradecanone				
	V	(438–462)	66.9	450	A, ME	[1987STE/MAL, 1938UBB]
$C_{14}H_{28}O$	[124-25-4]	Tetradecanal				
	V	(334–370)	77.4 ± 0.4	298	GS	[2003VER/KRA2]
	V	(343–383)	80.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	V	(372–571)	63.4	387	A	[1987STE/MAL, 1947STU]
$C_{14}H_{28}O$	[112-66-3]	Dodecyl acetate				
	V	(289–333)	79.6 ± 0.3	298	GS	[2006KRA/VER]
	V	(333–378)	81.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(398–540)	70.5	413	A	[1987STE/MAL]
$C_{14}H_{28}O_2$	[106-33-2]	Ethyl dodecanoate				
	FUS		36.07	273.2	DSC	[2014ROB/BAR]
	FUS		9.31	271.5		[1996DOM/HEA, 1934KIN/GAR]
	FUS		40.4	271.5	Cryst	[1934KIN/GAR]
	V	(313–462)	68.0 ± 0.9	388	Static	[2011BEN/KHI]
	V	(313–462)	79.3 ± 0.9	298	Static	[2011BEN/KHI]
	V	(420–464)	59.2	464	DSC	[2011SIL/FAL]
	V	(423–483)	80.0	298	GC	[1997KRO/VEL]
	V	(386–435)	67.2	401	A	[1987STE/MAL]
$C_{14}H_{28}O_2$	[1731-88-0]	Methyl tridecanoate				
	V		74.0	350	CE	[2002VAN/VAN]
	V		72.3 ± 0.1	368	CE	[2002VAN/VAN]
	V		80.0 ± 0.5	298	CE	[2002VAN/VAN]
	V		81.3 ± 0.7	298	GC, C	[1980FUC/PEA]
	V		82.7 ± 0.8	298	C	[1977MAN/SEL]
	V	(377-504)	72.6	392	A,E	[1987STE/MAL, 1963ROS/SCH]
$C_{14}H_{28}O_2$	[245658-44-0]	2,2-dimethylpropanoic acid, 1,1,5-trimethylhexyl ester				
	V	(333–378)	61.3	298	CGC	[1999VER/HEI]
$C_{14}H_{28}O_2$	[544-63-8]	Tetradecanoic acid (myristic acid)				
	FUS		43.95	328.9	DSC	[2015CAR/CON]
	FUS+TRS		43.8	328.1	DSC	[2014MAX/CAR]
[Note: Value includes the enthalpy for the transition that occurred at 321.7 K.]						
	FUS		43.4	325.3	DSC	[2013HUA/LU]
	FUS		45.1	327.1	DSC	[2011DAN/JIN]
	FUS		45.1	327.6	DSC	[2010SAR/BIC]
	FUS		45.75	326.2	DSC	[2010HON/HUA]
	FUS		48.35	328.9	DSC	[2009COS/SAR]
	TRS		1.8	315		
	TRS		6.4	325.3		
	FUS		45.0	326.5	DSC	[2007MOR/COR]
	FUS		40.1	326.6	DSC	[2007MIS/MIS]
	FUS		45.2	327.5	DSC	[2004INO/HIS]
	FUS	(90–340)	45.1	327	AC	[1996DOM/HEA, 1982SCH/VAN]
	FUS		42.3	325.9	DSC	[1975BER/LEO]
	FUS		44.7	327.4		[1964ADR/DEK]
	FUS		36.28	317		[1996DOM/HEA, 1885STO/WIL]
	SUB		168.6 ± 9	298	TPD	[2008CAP/LOV]
	SUB	(272–288)	125.6	280	TPTD	[2005CHA/ZIE]
	SUB	(282–305)	174	293	TPTD	[2001CHA/TOB]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						
	SUB	(312–325)	139.7 ± 3.8	318	ME	[1961DAV/MAL, 1970COX/PIL]
	V		110.7 ± 6.1	298	CGC	[2015WIL/GOB]
	V		111.2 ± 8.0	298	CGC	[2013WIL/CHI]
	V	(383–459)	100.4	398	A	[1987STE/MAL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(423–599)	91.6	438	A	[1987STE/MAL]
	V	(339–358)	104.1 ± 2.0	349	ME, TE	[1982DEK/SCH]
	V		88.9	455	I	[1943CRA]
$C_{14}H_{28}O_3$		Decyl 3-methoxypropionate				
	V	(403–513)	68.9	418	A	[1987STE/MAL]
$C_{14}H_{28}O_3$	[19816-73-0]	Peroxytetradecanoic acid				
	SUB	(293–303)	156.0 ± 4.1		ME	[1980SWA/KWA]
$C_{14}H_{28}O_4$	[56444-61-2]	2,2,9,9-tetramethyl-1,3,8,10-tetraoxacyclotetradecane				
	FUS		30.5	409.4		[1975BOR]
$C_{14}H_{28}O_4$	[55208-76-9]	3,3,6,6-tetrapropyl-1,2,4,5-tetraoxacyclohexane				
	V	(403–473)	65.1	298	CGC	[2007CAN/EYL]
$C_{14}H_{28}O_6$	[125590-73-0]	2-ethylhexyl α-*D*-glucoside				
	TRS		33.47	341.2		
	FUS		3.56	387.2	DSC	[1998NIL/SOE]
$C_{14}H_{28}O_6$	[125590-74-1]	2-ethylhexyl β-*D*-glucoside				
	FUS		10.88	330.2	DSC	[1998NIL/SOE]
$C_{14}H_{29}Br$	[112-71-0]	1-bromotetradecane				
	V	(437–645)	67.1	452	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{14}H_{29}Cl$	[2425-54-9]	1-chlorotetradecane				
	V		86.6	298		[2006BOL/NER2]
	V	(313–373)	80.2	313	GC	[1980JON/MAT]
	V	(313–373)	78.0	333	GC	[1980JON/MAT]
	V	(313–373)	74.4	353	GC	[1980JON/MAT]
	V	(313–373)	72.9	373	GC	[1980JON/MAT]
	V	(414–570)	68.7	429	A, DTA	[1987STE/MAL, 1969KEM/KRE]
$C_{14}H_{29}F$	[593-33-9]	1-fluorotetradecane				
	V	(288–335)	73.5 ± 0.4	298	GS	[1997SCH/VER]
	V	(400–593)	61.4	415	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{14}H_{29}I$	[19218-94-1]	1-iodotetradecane				
	V	(452–672)	90.0	298	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(452–672)	68.6	467	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{14}H_{29}NO$	[638-58-4]	Tetradecanamide				
	SUB	(248–375)	167.4 ± 2.5	352	ME	[1959DAV/JON2, 1987STE/MAL]
$C_{14}H_{30}$	[629-59-4]	Tetradecane				
	FUS		43.3	279.1	DSC	[2005HUA/SIM]
	FUS		42.7	278.3	DSC	[2004MON/RAJ]
	FUS		42,8	278.3	DSC	[1999MET/RAJ]
	FUS		45.07	279.0		[1996DOM/HEA, 1954FIN/GRO2]
	TRS		0.18	194.0		
	FUS		44.27	288.7		[1996DOM/HEA, 1934PAR/LIG]
	SUB		117.6	298	B	[1972MOR3]
	V	(303–462)	68.5	325	Static	[2013BEN/KHI2]
	V	(283–313)	71.6 ± 1.3	298	GS	[2009LEG/BAC]
	V		72.1	298	GS	[2001PUR/CHI]
	V		72.0 ± 2.4	298	CGC	[2000NIC/ORF]
	V		69.0	324	C	[1996VIT/CHA]
	V		68.6	329	C	[1996VIT/CHA]
	V		67.9	334	C	[1996VIT/CHA]
	V		66.8	344	C	[1996VIT/CHA]
	V		65.7	359	C	[1996VIT/CHA]
	V	(423–473)	71.2	298	CGC	[1995CHI/HOS]
	V	(363–413)	71.4	298	CGC	[1995CHI/HOS]
	V		71.7	298		[1994RUZ/MAJ]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(313–433)	67.8	328	A	[1987STE/MAL]
	V	(343–395)	64.1	361	GS	[1986ALL/JOS]
	V		70.1	313	C	[1979SUN/SVE]
	V		68.9	328	C	[1979SUN/SVE]
	V		71.8 ± 0.6	298	C	[1979SUN/SVE]
	V		71.1 ± 0.4	298	C	[1972MOR2]
	V		71.7	298		[1971WIL/ZWO]
	V		68.7 ± 0.2	298	C	[1963MOR/SUN]
	V	(432–529)	57.1	447	A	[1987STE/MAL, 1955CAM/ROS]
	V	(429–468)	57.8	449	ME	[1938UBB]
$C_{14}H_{30}$	[1560-96-9]	2-methyltridecane				
	V	(388-530)	56.3	403	A	[1987STE/MAL]
$C_{14}H_{30}$	[6418-41-3]	3-methyltridecane				
	V	(389–521)	55.1	404	A	[1987STE/MAL]
$C_{14}H_{30}$	[26730-12-1]	4-methyltridecane				
	V	(386–520)	54.2	401	A	[1987STE/MAL]
$C_{14}H_{30}$	[25117-31-1]	5-methyltridecane				
	V	(385–518)	53.8	400	A	[1987STE/MAL]
$C_{14}H_{30}$	[26730-14-3]	7-methyltridecane				
	V	(357–389)	59.0	372	A	[1987STE/MAL]
$C_{14}H_{30}$	[6117-98-2]	2,3-dimethyldodecane				
	V	(385–519)	53.4	400	A	[1987STE/MAL]
$C_{14}H_{30}$	[6117-99-3]	2,4-dimethyldodecane				
	V	(379–509)	54.0	394	A	[1987STE/MAL]
$C_{14}H_{30}$	[107771-01-7]	2,4,6-trimethylundecane				
	V	(368–491)	53.2	383	A	[1987STE/MAL]
$C_{14}H_{30}$	[5171-86-8]	2,2,3,4,6,6-heptamethylheptane				
	V	(313–366)	54.5	366	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{14}H_{30}$	[5171-86-8]	Hexaethylethane (3,3,4,4-tetraethylhexane)				
	V	(298–307)	63.9 ± 1.2	298	GS	[1997VER/NOL]
	V	(283–302)	65.7 ± 1.2	292	GS	[1973BEC/RUC, 1995CHI/HES]
	V		65.0 ± 1.2	298		[1973BEC/RUC]
$C_{14}H_{30}$	[65149-84-0]	2,2,3,3,4,4,5,5-octamethylhexane				
	V	(288–325)	56.9 ± 0.7	298	GS	[1997VER/NOL]
$C_{14}H_{30}N_2O$	[842173-55-1]	1-tridecyl urea				
	TRS		1.5	261.6		
	TRS		2.8	306.5		
	FUS		46.0	384.6	DSC	[2005HAS/TAJ]
$C_{14}H_{30}O$	[629-64-1]	Diheptyl ether				
	V	(360–547)	63.1	375	A	[1987STE/MAL]
$C_{14}H_{30}O$		4-methylpentyl *tert*-octyl ether				
	V		57.5	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{14}H_{30}O$		3-methylpentyl *tert*-octyl ether				
	V		58.0	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{14}H_{30}O$		3,3-dimethylbutyl *tert*-octyl ether				
	V		56.4	298	CGC	[UR/VER, 2002VER, 2003VER/KRA]
$C_{14}H_{30}O$	[508181-44-0]	Hexyl *tert*-octyl ether				
	V	(296–326)	59.8 ± 0.6	298	GS	[2003VER/KRA]
	V		59.2	298		[UR/VER, 2002VER]
$C_{14}H_{30}O$	[112-72-1]	1-tetradecanol				
	FUS		45.81	311.1	DSC	[2015CAR/CON]
	FUS		25.9	311.2	DSC	[2014CAR/DOS]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS + TRS		47.6	311.4	DSC	[2014MAX/CAR]
[Note: Value includes the enthalpy for the transition that occurred at 310.5 K.]						
	FUS		44.4	310.2	DSC	[2011ZUO/LI]
	FUS		47.8	309.9	DSC	[2011ZUO/LI]
	FUS		47.29	308.1	DSC	[2009ZEN/CAO]
	FUS		45.66	311.15	DSC	[1978ECK/MUL]
	FUS + TRS		47.01	311.2		
	FUS (α)		25.1	310.8		
	TRS (β to γ)		1.8	306		
	TRS (γ to α)		23.81	311		
	TRS (γ to α)		22.01	311.6		
	FUS + TRS		49.51	311	AC	[1974MOS/MOU]
	SUB		126.0 ± 0.6			[1977MAN/SEL]
	SUB	(293–307)	143.9	300	ME	[1965DAV/KYB]
	V	(479–520)	65.9	494	EB	[2010CEN/ROH]
	V		98.9 ± 2.5	298	CGC	[2006NIC/KWE]
	V	(312–346)	93.6	328	GS	[2001KUL/VER2]
	V	(312–346)	98.7	298	GS	[2001KUL/VER2]
	V	(333–438)	81.8	386		[1992NGU/KAS]
	V	(317–358)	109	332	A	[1987STE/MAL]
	V		102.2 ± 2.3	298	C	[1977MAN/SEL]
	V	(313–358)	106.4	328		[1973WIL/ZWO]
	V	(424–569)	76.6	439	A	[1987STE/MAL, 1969KEM/KRE]
	V	(313–326)	104.2	320	ME	[1965DAV/KYB]
$C_{14}H_{30}O$	[4706-81-4]	2-tetradecanol				
	V	(313–428)	95.7	328		[1999NGU/BER]
$C_{14}H_{30}O_2$	[4536-30-5]	2-(dodecyloxy)ethanol				
	V	(414–467)	71.5	429	A	[1987STE/MAL, 1974NAK/EDA]
$C_{14}H_{30}O_2$	[19812-64-7]	1,14-tetradecanediol				
	FUS		63.5	359.2	DSC	[2014BAD/NOW]
	FUS		61.9	360.4	DSC	[1999OGA/NAK]
	V		149.7 ± 2.4	298	CGC	[2006UMN/KWE]
	V		128.1 ± 5.8	386		[1993PIA/FER, 2006UMN/KWE]
	V		141.7 ± 6.2	298		[1993PIA/FER, 2006UMN/KWE]
$C_{14}H_{30}O_2S$	[126835-75-4]	3-(undecylthio)-1,2-propanediol				
	TRS		2.5	280.2		
	TRS		4.9	289.1		
	TRS		4.6	295.2		
	FUS		18.3	317.4	DSC	[1993ACR, 1990VAN/VAN]
$C_{14}H_{30}O_3$	[10430-98-5]	3-(undecyloxy)-1,2-propanediol				
	FUS		43.1	311.7	DSC	[1993ACR, 1990VAN/VAN]
$C_{14}H_{30}O_4S_2$		2-deoxy-(*D*)-glucose dibutyl dithioacetal				
	FUS		60.3	409.5	DSC	[1989VAN/VAN]
$C_{14}H_{30}O_4S_2$		(*L*)-rhamnose dibutyl dithioacetal				
	FUS		37.9	389.9	DSC	[1989VAN/VAN]
[Note: The authors report that there are several transitions prior to melting.]						
$C_{14}H_{30}O_5S_2$	[115395-52-3]	(*D*)-glucose dibutyl dithioacetal				
	FUS		50.2	399	DSC	[1989VAN/VAN]
$C_{14}H_{30}O_5S_2$	[68747-93-3]	(*D*)-galactose dibutyl dithioacetal				
	FUS		46.4	399.2	DSC	[1989VAN/VAN]
$C_{14}H_{30}S$	[2079-95-0]	1-tetradecanethiol				
	V	(446–614)	67.3	461		[1999DYK/SVO]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{14}H_{30}S_2$	[10496-16-9]	Diheptyl disulfide				
	V	(458–630)	69.8	473		[1999DYK/SVO]
$C_{14}H_{31}N$	[2470-68-0]	Diheptylamine				
	V		81.2 ± 7.1	298	CGC	[2014THO/GOB]
	V	(435–605)	60.0	450	A	[1987STE/MAL]
	V	(435–605)	81.7 ± 2.6	298	A	[1987STE/MAL]
$C_{14}H_{31}N$	[112-18-5]	*N*,*N*-dimethyldodecylamine				
	V	(283–324)	69.5	299		[2004FUL/RUZ]
	V	(380–604)	64.4	395	A	[1987STE/MAL]
$C_{14}H_{31}N$	[2016-42-4]	Tetradecylamine				
	V		85.5 ± 2.8	298	CGC	[2013GOB/RAT]
	V	(471–577)	62.4	486	A,E	[1987STE/MAL, 1956MAN2]
$C_{14}H_{31}NO_2$	[126835-66-3]	3-(undecylamino)-1,2-propanediol				
	FUS		58.2	348.8	DSC	[1993ACR, 1990VAN/VAN]
$C_{14}H_{31}O_2P$	[3011-76-5]	Diheptylphosphinic acid				
	V	(482–664)	64.1	573		[1971NAK/SMI]
$C_{15}F_{32}$	[2264-03-1]	Perfluoropentadecane				
	FUS		35.1	388.1	DSC	[2012HAS/DRA]
	SUB	(312–368)	109.4 ± 0.4	298	GS	[2012HAS/DRA]
	V		82.7 ± 3.9	298	CGC	[2012HAS/DRA]
$C_{15}F_{33}N$	[338-84-1]	tris(perfluoropentyl)amine				
	V	(471–491)	49.9	481		[1995CIA/DU]
$C_{15}H_8C_{13}NO_2$	[77765-38-9]	2,2,4-trichloro-5-(2-naphthaleneylamino)-4-cyclopentene-1,3-dione				
	V	(453–483)	91.4	468	GC	[1980SHA/SAD]
$C_{15}H_9N$	[1210-12-4]	9-cyanoanthracene				
	FUS		25.19	445.2	DSC	[1970GUA/SAR]
$C_{15}H_9N_3$	[217-88-9]	Pyrido[2,3-f] [1,7]phenanthroline				
	V	(648–707)	65.1	663	A	[1987STE/MAL, 1962JOH/MCE]
$C_{15}H_9N_3$	[217-81-2]	Pyrido[3,2-f] [1,7]phenanthroline				
	V	(648–706)	67.4	663	A,I	[1987STE/MAL, 1962JOH/MCE]
$C_{15}H_{10}$	[203-64-5]	4*H*-cyclopenta[def]phenanthrene				
	V		83.4 ± 0.7	298	CGC	[2008HAN/NUT]
$C_{15}H_{10}ClFN_2O$	[2886-65-9]	7-chloro-1,3-dihydro-5-(2′-fluorophenyl)-2*H*-1,4-benzodiazapin-2-one (desalkylflurazepam)				
	FUS		30.7	481.2	DSC	[2008WAS/HOL]
$C_{15}H_{10}Cl_2N_2O_2$	[50264-69-2]	1-[(2,4-dichlorophenyl)methyl]-1*H*-indazole-3-carboxylic acid				
	FUS		45.92	480.2	DSC	[1998PAL/WEH]
$C_{15}H_{10}Cl_2N_2O_2$	[846-49-1]	7-chloro-5-(2-chlorophenyl)-1,3-dihydro-3-hydroxy-2*H*-1,4-benzodiazepin-2-one ((±)lorazepam)				
	FUS		75.2	453.2	DSC	[2008WAS/HOL]
	FUS		92.57	446.5	DSC	[2001VER/AUG]
$C_{15}H_{10}N_2O_2$	[2536-05-2]	2,2′-diisocyanatodiphenylmethane				
	V	(343–413)	90.1	358	A	[1987STE/MAL]
$C_{15}H_{10}N_2O_2$	[5873-54-1]	2,4′-diisocyanatodiphenylmethane				
	V	(343–413)	89.3	358	A	[1987STE/MAL]
$C_{15}H_{10}N_2O_2$	[101-68-8]	4,4′-diisocyanatodiphenylmethane				
	FUS		27.3	313.6		[1996DOM/HEA, 1977LEB/EVS]
	V	(343–413)	90.5	358	A	[1987STE/MAL]
	V	(442–530)	93.8	457	A	[1987STE/MAL]
	V	(442–530)	90.6	483	A	[1966ZAL/STR]
$C_{15}H_{10}O$	[886-38-4]	Diphenylcyclopropenone				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(353–378)	119.7 ± 8	365	HSA	[1985STE/GAN]
	SUB	(323–343)	141 ± 4	333	ME	[1976HOP/BOS, 1987STE/MAL]
$C_{15}H_{10}O$	[642-31-9]	9-anthraldehyde				
	FUS		17.9	379.4	DSC	[2010GOL/KUL]
	FUS		17.61	377.2	DSC	[1970GUA/SAR]
	SUB	(329–363)	100.6 ± 3.9	346	ME	[2008GOL/SUU]
$C_{15}H_{10}O_2$	[613-08-1]	2-anthracenecarboxylic acid				
	FUS		36.9	559.1	DSC	[2010GOL/KUL]
	SUB	(401–421)	134.8 ± 3.4	411	ME	[2008GOL/SUU]
$C_{15}H_{10}O_2$	[723-62-6]	9-anthracenecarboxylic acid				
	FUS		34.7	495.6	DSC	[2010GOL/KUL]
	SUB	(403–423)	134.9 ± 0.9	413	ME	[2011RIB/SAN]
	SUB	(403–423)	139.4 ± 0.9	298	ME	[2011RIB/SAN]
	SUB	(385–420)	120.1 ± 3.8	402	ME	[2008GOL/SUU]
	SUB	(385–420)	125.5 ± 3.8	298	ME	[2008GOL/SUU, 2011RIB/SAN]
$C_{15}H_{10}O_2$	[525-82-6]	2-phenyl-4*H*-1-benzopyran-4-one (flavone)				
	FUS		20.32	369.9	DSC	[2009SOU/MAT]
	SUB		108.2 ± 1.7	298	C	[2009SOU/MAT]
$C_{15}H_{10}O_3$	[82-39-3]	1-methoxy-9,10-anthraquinone				
	SUB		128		GS	[1987SHI/OHK, 1991HOR]
	SUB		106.6	385	HSA	[1956BEY/NIC]
$C_{15}H_{10}O_3$	[3274-20-2]	2-methoxy-9,10-anthraquinone				
	SUB		124.7		GS	[1987SHI/OHK, 1991HOR]
	SUB		118.4 ± 0.4	419	HSA	[1956BEY/NIC]
$C_{15}H_{10}O_3$	[60466-75-3]	9-methoxy-1,4-anthraquinone				
	SUB	(363–386)	130.5 ± 2.3	375	ME	[2002JIM/ROU]
	SUB	(363–386)	131.5 ± 2.3	298	ME	[2002JIM/ROU]
$C_{15}H_{10}O_3$	[13057-72-2]	7-hydroxyisoflavone				
	FUS (I)		24.6	487.3		
	FUS (II)		30.1	488.0	DSC	[2016GON/ZHA]
$C_{15}H_{10}O_4$	[480-40-0]	5,7-dihydroxy-2-phenyl-4*H*-1-benzoyran-4-one (chrysin)				
	FUS		39.2	558.2	DSC	[2007CHE/HUM]
$C_{15}H_{10}O_4$	[486-66-8]	7-hydroxy-3-(4-hydroxyphenyl)chromen-4-one (daidzein)				
	FUS		35.05	588.8	DSC	[2014ZEN/PAN]
$C_{15}H_{10}O_4$	[56973-60-5]	3-benzoyloxyphthalide				
	SUB	(343–388)	U 125.3	366		[1989ROR/RUT]
$C_{15}H_{10}O_7$	[117-39-5]	2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one (quercetin)				
	TRS		4.88	381.6		
	FUS		51.08	587.8	DSC	[2010BOG/GON]
	FUS		41.5	595.2	DSC	[2007CHE/HUM]
$C_{15}H_{11}C1F_3NO_4$	[42874-03-3]	2-chloro-1-(3-ethoxy-4-nitrophenoxy)-4-(trifluoromethyl)benzene				
	FUS		30.07	358.8	DSC	[1991ACR, 1990DON/DRE]
$C_{15}H_{11}C1N_2O$	[1088-11-5]	7-chloro-1,3-dihydro-5-phenyl-2*H*-1,4-benzodiazepin-2-one (nordazepam)				
	FUS (I)		24.45	494.5		
	FUS (II)		34	489.9		
	FUS (III)		27.4	489.2		
	FUS (IV)		33.62	487.4	TGA	[1996DOM/HEA, 1992CHA/MOU]
$C_{15}H_{11}ClN_2O_2$	[604-75-1]	7-chloro-1,3-dihydroxy-5-phenyl-2*H*-1,4-benzodiazepin-2-one ((±)-oxazepam)				
	FUS		86.4	478.8	DSC	[2008WAS/HOL]
	FUS		84.11	467.5	DSC	[2001VER/AUG]
$C_{15}H_{11}F_3O_3$	[3119-86-6]	2-hydroxy-2′-trifluoromethyl-4-methoxybenzophenone				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(323–363)	U 13.3	338	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{15}H_{11}F_3O_3$	[7396-89-6]	2-hydroxy-3′-trifluoromethyl-4-methoxybenzophenone				
	SUB	(313–323)	103.8	318	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{15}H_{11}F_3O_3$	[7396-90-9]	2-hydroxy-4′-trifluoromethyl-4-methoxybenzophenone				
	SUB	(313–333)	91.0	323	EV	[1987STE/MAL, 1966GRA/BUR]
$C_{15}H_{11}N$	[612-96-4]	2-phenylquinoline				
	SUB	(337–351)	103.1 ± 0.8	344	ME	[1997RIB/MAT3]
	SUB	(337–351)	105.4 ± 0.9	298	ME	[1997RIB/MAT3]
$C_{15}H_{11}NO_2$	[82-38-2]	1-methylamino-9,10-anthraquinone				
	FUS		28.81	443.2		[1991BAU/WEB]
	SUB		112.6			[1984KAR/KRU]
	SUB	(363–383)	115.9 ± 3.5	373		[1984KRI]
	SUB	(384–405)	123.8 ± 3.3	395	ME	[1960BRA/BIR, 1987STE/MAL]
	SUB		123.8		ME	[1964JON/SED, 1991HOR, 1966JON/KRA]
	SUB		115.5 ± 0.4	461	HSA	[1956BEY/NIC]
	SUB		114.7 ± 3	406	HSA	[1956BEY/NIC]
	V	(433–493)	103.5	448	A	[1987STE/MAL]
$C_{15}H_{11}NO_2$	[82-28-0]	l-amino-2-methyl-9,10-anthraquinone				
	SUB	(360–388)	124.6 ± 7.3	374		[1984KRI]
$C_{15}H_{11}NO_3S$	[313057-09-9]	4-(2-propenyloxy)phenyl 5-cyano-2-thiophene carboxylate				
	FUS		103.8	361.5	DSC	[2000WU/WAN]
$C_{15}H_{11}NO_4$	[2379-90-0]	l-amino-2-methoxy-4-hydroxy-9,10-anthraquinone				
	SUB		132			[1984KAR/KRU]
$C_{15}H_{11}N_3O_2$	[6407-80-3]	4-hydroxy-3-(phenylazo)-2(1*H*)-quinolinone (Disperse Yellow 4)				
	SUB		127.2			[1968TSU/KOJ, 1988BAU/PER]
$C_{15}H_{12}$	[610-48-0]	l-methylanthracene				
	V		87.0 ± 1.0	298	CGC	[2008HAN/NUT]
$C_{15}H_{12}$	[613-12-7]	2-methylanthracene				
	V		84.5 ± 2.7	298	CGC	[2008HAN/NUT]
	V	(413–473)	84.4 ± 1.2	298	GC	[2006HAF/PAR]
	V	(323–473)	76. 1	398	GC	[2002LEI/CHA]
$C_{15}H_{12}$	[779-02-2]	9-methylanthracene				
	SUB	(329–345)	99.8 ± 1.0	337	ME	[2006RIB/AMA2]
	SUB	(329–345)	101.8 ± 1.0	298	ME	[2006RIB/AMA2]
	SUB		99.4 ± 1.0			[1985KIS/VEI]
	SUB		98.9		RG	[1958KLO]
	V		88. 1 ± 1 .0	298	CGC	[2008HAN/NUT]
	V	(354–402)	98.9	369	A	[1987STE/MAL]
	V	(423–587)	58.5	465		[1983SIV/KOB]
	V	(423–587)	58.1	515		[1983SIV/KOB]
	V	(423–587)	56.5	555		[1983SIV/KOB]
$C_{15}H_{12}$	[832-69-9]	1-methylphenanthrene				
	V		84.5 ± 1.4	298	CGC	[2008HAN/NUT]
	V	(323–473)	76.3	398	GC	[2002LEI/CHA]
$C_{15}H_{12}$	[832-64-4]	4-methylphenanthrene				
	TRS	(12–445)	0.02	182		
	TRS	(12–445)	0.03	295		
	FUS	(12–445)	14.04	324.9	AC	[1996DOM/HEA, 1989CHI/HOS]
	V	(368–647)	74.4 ± 0.2	380	EB,IPM	[1989CHI/HOS]
	V	(368–647)	71.8 ± 0.1	420	EB,IPM	[1989CHI/HOS]
	V	(368–647)	69.2 ± 0.1	460	EB,IPM	[1989CHI/HOS]
	V	(368–647)	66.7 ± 0.1	500	EB,IPM	[1989CHI/HOS]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(368–647)	64.2 ± 0.1	540	EB,IPM	[1989CHI/HOS]
	V	(368–647)	61.6 ± 0.1	580	EB,IPM	[1989CHI/HOS]
$C_{15}H_{12}$	[4505-48-0]	2-phenylindene				
	V		84.3 ± 0.7	298	CGC	[2008HAN/NUT]
$C_{15}H_{12}Br_4O_2$	[79-94-7]	2,2′,6,6′-tetrabromo-4,4-isopropylidenediphenol				
	FUS		29.1	451.5	DSC	[2008KUR/KAW]
	SUB		153 ± 3		ME	[2008KUR/KAW]
$C_{15}H_{12}ClN_5O_4$		5-[(4-chloro-2-nitrophenylazo]-1-ethyl-1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinecarbonitrile				
	FUS		35.16	500.2		[1991BAU/WEB]
$C_{15}H_{12}N_2$	[668-94-0]	4.5-diphenylimidazole				
	FUS		32.34	505	DSC	[2007SIF/AIT]
$C_{15}H_{12}N_2O$	[298-46-4]	5*H*-dibenz[*b*,*f*]azepme-5-carboxamide (carbamazepine)				
	FUS (I)		29.1	449.2		
	FUS (III)		26.2	465.2	DSC	[2014RAG]
	FUS		U37.1	465.0	DSC	[2012JEG/PRA]
	FUS		25.54	465	DSC	[2010BAI/VAN]
	FUS		25.6	465.3	DSC	[2009GOO/ROD]
	FUS (I)		27.1	452.4		
	FUS (III)		26.3	463.7	DSC	[2007DEF/RAN]
	FUS		25.7	464.3	DSC	[2004MCG/SAU]
	FUS (I)		25.52	466.7		
	FUS (II)		26.82	464.4		
	FUS (III)		24.89	464.7	DSC	[2003GRZ/LAN]
	FUS		23.63	464.4	DSC	[2001NAI/SIR]
	FUS		24.5	464.5	DSC	[2001EDW/SKE]
	FUS		24.5			[1984KAN/YAM, 2001EDW/SKE]
$C_{15}H_{12}N_2O_2$	[1220-94-6]	1-amino-4-(*N*-methylamino)anthra-9,10-quinone				
	SUB		140.6		GS	[1967DAT/KAN, 1991HOR]
$C_{15}H_{12}N_2O_2$	[57-41-0]	5,5-diphenyl-2,4-imidazolidinedione (phenytoin)				
	FUS		38.85	576.2	DSC	[2016LED/CAM]
	FUS		38.50	571.2	DSC	[2015GAU/VAN]
	FUS		40.1	568.8	DSC	[2006WAS/HOL, 2008WAS/HOL]
	FUS		47.08	570.8	DSC	[2003NOK/BOL]
	FUS		36.29	574		[1985OHM/LIP]
$C_{15}H_{12}N_2O_2$	[52955-48-3]	*N*-(*N*′-methylanilino)phthalamide				
	TRS		3.6	374		
	FUS		21.7	399	DSC	[1998BOT/ELL]
$C_{15}H_{12}N_2O_2$	[28721-07-5]	10,11-dihydro-10-oxo-5*H*-dibenz[*b*,*f*]azepine-5-carboxamide (oxcarbazepine)				
	FUS (I)		40.3	495.6	DSC	
	FUS (II)		33.3	491.4	DSC	
	FUS (III)		26.07	486.2	DSC	[2010LUT/MAT]
[Note: All three polymorphic forms decomposed on melting.]						
$C_{15}H_{12}N_2O_3$	[2872-48-2]	1,4-diamino-2-methoxyanthra-9,10-quinone				
	FUS		35.29	515.2		[1988BAU/PER]
	SUB		147.0			[1984KAR/KRU]
	SUB		151.9		GS	[1967DAT/KAN, 1991HOR]
$C_{15}H_{12}N_4$	[7385-99-1]	2-quinolinylhydrazone-(2-pyridinecarboxaldehyde)				
	FUS		38	475.4	DSC	[2013PER/KAZ]
$C_{15}H_{12}N_4O_2$	[340820-68-0]	4-phenyl-5-(2-pyridinyl)-4*H*-1,2,4-triazole-3-carboxylic acid, methyl ester				
	FUS		24.4	465.2	DSC	[2005SIK/MOD]
$C_{15}H_{12}O$	[1210-35-1]	Dibenzosuberone				
	FUS		17.15	305.5	DSC	[1998VER4]
	SUB		109.3 ± 1.5	298		[1998VER4]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(314–338)	90.0 ± 1.5	326	GS	[1998VER4]
$C_{15}H_{12}O$	[2395-96-2]	9-methoxyanthracene				
	SUB		110.6 ± 1.5			[1985KIS/VEI]
$C_{15}H_{12}O$	[1139-82-8]	5,7-dihydro-6*H*-dibenzo[*a*,*c*]cyclohepten-6-one				
	FUS		18.16	350.3	DSC	[1998VER4]
	SUB	(323–347)	95.6 ± 0.8	298	GS	[1998VER4]
$C_{15}H_{12}OS$	[1215-43-6]	monthiodibenzoylmethane				
	SUB		125.5 ± 4.9	298	C	[2004RIB/SAN3]
$C_{15}H_{12}O_2$	[120-46-7]	Dibenzoylmethane				
	SUB		113.3 ± 4.8	298	C	[2004RIB/SAN3]
	SUB	(339–348)	114.4 ± 0.9	343	ME	[1992RIB/MON]
	SUB	(339–348)	115.7 ± 0.9	298	ME	[1992RIB/MON]
$C_{15}H_{12}O_2$	[120-46-7]	1,3-diphenyl-1,3-propanedione				
	V	(368–383)	60.1	375	A	[1987STE/MAL]
$C_{15}H_{12}O_2$	[487-26-3]	2,3-dihydro-2-phenyl-4*H*-1-benzopyran-4-one (flavanone)				
	FUS		21.04	349.5	DSC	[2009SOU/MAT]
	SUB		107.2 ± 2.3	298	C	[2009SOU/MAT]
$C_{15}H_{12}O_5$	[480-41-1]	2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one (naringenin)				
	FUS		39.8	523.2	DSC	[2007CHE/HUM]
$C_{15}H_{12}O_8$	[27200-12-0]	Dihydromyricetin				
	FUS		30.11	525.2	DSC	[2015ZHA/CAI]
$C_{15}H_{13}ClN_2O_2$	[107485-57-4]	1-(2-methylbenzoyl)-3-(4-chlorophenyl)urea				
	FUS		35.2	474	DSC	[2014OZA/NAK]
$C_{15}H_{13}ClN_2O_2$	[1634626-34-8]	1-(4-methylbenzoyl)-3-(4-chlorophenyl)urea				
	FUS		38.9	511	DSC	[2014OZA/NAK]
$C_{15}H_{13}ClN_2O_3$	[107485-58-5]	1-(2-methoxybenzoyl)-3-(4-chlorophenyl)urea				
	FUS		26.0	438	DSC	[2014OZA/NAK]
$C_{15}H_{13}ClN_2O_5$	[1562-85-2]	Gallocyanine (C. I. Disperse Blue 95)				
	SUB	(433–493)	88.2	448	A	[1987STE/MAL]
$C_{15}H_{13}ClN_2S$	[688319-94-0]	*N*-(2-methyl-4-chlorophenyl)-4*H*-3,1-benzothiazin-2-amine				
	FUS		17.5	495.8	DSC	[2004GON/KOS]
$C_{15}H_{13}Cl_2NO_2$	[117-27-1]	1,1-(di-*p*-chlorophenyl)-2-nitropropane				
	FUS		21.39	354.3	DSC	[1990DON/DRE]
$C_{15}H_{13}FO_2$	[5104-49-4]	2-fluoro-α-methyl[1,1′-biphenyl]-4-acetic acid (*R*,*S* flurbiprofen)				
	FUS		28.2	387.1	DSC	[2012UMN/HAS]
	FUS		27.41	388	DSC	[2010BAI/VAN]
	FUS		27.8	387.0	DSC	[2009GAS/CEN]
	FUS		28.0	387.9	DSC	[2007VIP/WAN]
	FUS		27.9	386.7	DAC	[1999HEN/KUH]
	SUB		110.2 ± 0.5	298		[2008KUR/PER, 2012UMN/HAS]
	SUB	(342–378)	108.4 ± 0.5	360	GS	[2003PER/KUR]
	V		127.5 ± 5.5	298	CGC	[2012UMN/HAS]
$C_{15}H_{13}FO_2$	[51543-40-9]	2-fluoro-α-methyl[1,1′-biphenyl]-4-acetic acid (*R* flurbiprofen)				
	FUS		23.3	380.6	DSC	[2012UMN/HAS]
[Note: The above enthalpy of fusion includes two solid–solid phase transition enthalpies totaling 0.5 kJ/mol.]						
	V		127.4 ± 4.7	298	CGC	[2012UMN/HAS]
$C_{15}H_{13}NO$	[3558-24-5]	1-methyl-2-phenylindole				
	SUB	(331–353)	109.5 ± 0.7	342	ME	[2015CAR/AMA]
	SUB	(331–353)	111.1 ± 0.7	298	ME	[2015CAR/AMA]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_{13}NO$	[68347-34-2]	2,10-dimethylacridin-9(10*H*)-one				
	FUS		22.4	426	DSC	[2003STO/KRZ]
	SUB		119		DSC	[2003STO/KRZ]
$C_{15}H_{13}NO$	[2207-41-2]	10-ethylacridin-9(10*H*)-one				
	FUS		27.5	434	DSC	[2003STO/KRZ]
	SUB		117		DSC	[2003STO/KRZ]
$C_{15}H_{13}NO_2$	[23825-32-3]	*N*-benzoyl-*N*-methylbenzamide				
	SUB	(246–269)	116.8 ± 0.4	256	ME	[1997ROU/JIM]
	SUB	(246–269)	120.1 ± 0.4	298	ME	[1997ROU/JIM]
$C_{15}H_{13}NO_3$	[74103-06-3]	5-benzoyl-2,3-dihydro-1*H*-pyrrolizine-1-carboxylic acid (ketorolac)				
	FUS (I)		28.62	431.2	DSC	
	FUS (II)		171.74	430.2	DSC	
[Note: The value for (II) seems much too large in comparison with fusion enthalpies of the other two crystalline forms.]						
	FUS (III)		25.42	426.2	DSC	[2004SOH/SEO]
$C_{15}H_{13}N_3O_4S$	[36322-90-4]	2*H*-1,2-benzothiazine-3-carboxyamide-4-hydroxy-2-methyl-*N*-2-pyridinyl-1,1-dioxide (piroxicam)				
	FUS		35.85	473.7	DSC	[2013SOT/HOL]
	FUS		34.4	473.4	DSC	[2010LAV/PIR]
	FUS		36.3	473.4	DSC	[2006WAS/HOL, 2008WAS/HOL]
	FUS		35.0	473.9	DSC	[2006DRE/SHA]
	FUS		35.0	474.5		[1998GIO/GAZ]
	FUS		34.5	473	DSC	[1998BUS/PEN]
$C_{15}H_{13}N_5$	[120356-41-4]	[1-(2-pyridinyl)ethylidene]hydrazone-(4-(1*H*)-quinazolinone)				
	FUS		42	484.7	DSC	[2013PER/KAZ]
$C_{15}H_{14}$	[833-48-7]	10,11-dihydro-5*H*-dibenzo[*a*,*d*]cycloheptene (dibenzosuberane)				
	FUS		23.33	348.0	DSC	[2011MIR/MAT]
	SUB		103.6 ± 2.0	298	C	[2011MIR/MAT]
$C_{15}H_{14}ClN$	[113788-74-2]	4-chlorobenzylidene-4′-ethylaniline				
	FUS		17.21	358.4	DSC	[1999GAL/COL]
$C_{15}H_{14}Cl_2N_4O_3$	[6232-56-0]	4-(*N*-methyl-*N*-2-hydroxyethylamino)-4′-nitro-2′,6′-dichloroazobenzene				
	SUB		135.1			[1968TSU/KOJ, 1988BAU/PER]
$C_{15}H_{14}Cl_3O_2PS$	[57875-65-7]	(chloromethyl)thiophosphnic acid, *O*,*O*-bis(2-chloro-4-methylphenyl) ester				
	V	(343–365)	93.2	354	A	[1987STE/MAL, 1999DYK/SVO]
$C_{15}H_{14}F_3N_3$	[6232-56-0]	*N*,*N*-dimethyl-4-[[4-(trifluoromethyl)phenyl]azo]benzenamine				
	SUB		95.8		UV	[1984KAR/ROD]
$C_{15}H_{14}F_3N_3O$	[1494-75-3]	*N*,*N*-dimethyl-4-[[4-(trifluoromethoxy)phenyl]azo]benzenamine				
	SUB		96.8		UV	[1984KAR/ROD]
$C_{15}H_{14}F_3N_3S$	[1494-77-5]	*N*,*N*-dimethyl-4-[[4-[(trifluoromethyl)thio]phenyl]azo]benzenamine				
	SUB		100.8		UV	[1984KAR/ROD]
$C_{15}H_{14}N_2$	[3295-59-8]	*N*,*N*-dimethyl-9-acridinamine				
	SUB		86.0	510	TGA	[1998STO/KRZ]
$C_{15}H_{14}N_2$	[213623-43-9]	*N*-methyl-10-methylacridinimine				
	SUB		72.0	480	TGA	[1998STO/KRZ]
$C_{15}H_{14}N_2OS$	[109768-68-5]	*N*-(4-methoxyphenyl)-4*H*-3,1-benzothiazin-2-amine				
	FUS		16.1	436.2	DSC	[2004GON/KOS]
$C_{15}H_{14}N_2S$	[109768-67-4]	*N*-(4-methylphenyl)-4*H*-3,1-benzothiazin-2-amine				
	FUS		19.9	448.4	DSC	[2004GON/KOS]
$C_{15}H_{14}N_4O$	[129618-40-2]	11-cyclopropyl-5,11-dihydro-4-methyl-6*H*-dipyrido[3,2-*b*:2′,3′-e][1,4]diazepin-6-one (nevirapine)				
	FUS (O)		27.03	518.3		
	FUS (I)		19.50	515.9		

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (II)		22.89	514.3	DSC	[2013CHA/ARO]
$C_{15}H_{14}O$	[102-04-5]	1,3-diphenylacetone				
	FUS		27.0	307.2	S–V	[2010LIM/SOU]
	FUS		20.2	307.2	DSC	[1993ACR, 1991CHI/BRA]
	SUB		111.6 ± 2.3	298	C	[2010LIM/SOU]
	SUB		89.1 ± 5			[1954SPR/WHI, 1977PED/RYL, 1970COX/PIL]
	V		84.6 ± 2.5	298	C	[2010LIM/SOU]
	V	(398–604)	65.7	413	A	[1987STE/MAL, 1947STU]
$C_{15}H_{14}O$	[10435-68-4]	4,5,6-trimethylbenzoxalene				
	SUB		139.7 ± 2.5			[1966GEI/QUI, 1970COX/PIL]
$C_{15}H_{14}O$	[1210-34-0]	5*H*-10,11-dihydrodibenzo[*a*,*d*]cyclohexane-5-ol				
	FUS		19.0	365.2	DSC	[2005PER/BAN]
$C_{15}H_{14}O$	[2571-39-3]	3,4-dimethylbenzophenone				
	SUB		107.9 ± 0.8	298	C	[2008GOM/AMA]
$C_{15}H_{14}O_2$	[4359-34-6]	2,2-diphenyl-1,3-dioxolane				
	FUS		15.9	328.1		[1998VER/PEN]
	SUB		99.7 ± 1.1	298		[1998VER/PEN]
	V	(331–370)	84.6 ± 0.6	298	GS	[2002VER]
	V	(331–370)	81.2 ± 0.6		GS	[1998VER/PEN]
$C_{15}H_{14}O_2$	[7144-65-2] or [4698-96-8]	1-biphenyloxy-2,3-epoxypropane				
	V	(408–613)	80.0	423	A	[1987STE/MAL]
$C_{15}H_{14}O_2$	[2929-45-5]	(2-hydroxy-4,6-dimethylphenyl)phenylmethanone				
	FUS		0.67	405.2	DTA	[1989SAL/ABA]
[Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent.]						
$C_{15}H_{14}O_2$	[72108-22-6]	4,4′-dihydroxy-α-methylstilbene				
	FUS		20.82	465.2	DSC	[2000PUN]
[Note: DSC thermogram showed an un-quantified transition between 373 and 393 K.]						
$C_{15}H_{14}O_2$	[5558-66-7]	2,2-diphenylacetic acid				
	FUS		33.1	446.1	DSC	[2011MON/SOU]
	SUB	(366–386)	125.8 ± 0.5	376	ME	[2011MON/SOU]
	SUB	(366–386)	129.0 ± 0.5	298	ME	[2011MON/SOU]
$C_{15}H_{14}O_2$	[606-83-7]	3,3-diphenylacetic acid				
	FUS		30.4	428.5	DSC	[2011MON/SOU]
	SUB	(366–386)	128.9 ± 0.4	376	ME	[2011MON/SOU]
	SUB	(366–386)	132.3 ± 0.4	298	ME	[2011MON/SOU]
$C_{15}H_{14}O_2S$	[54897-33-5]	(*Z*)-1-methyl-4-(2-phenylethenyl)sulfonyl benzene				
	SUB		116.3 ± 3.8		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{15}H_{14}O_2S$	[16212-08-1]	(*E*)-1-methyl-4-(2-phenylethenyl)sulfonyl benzene				
	SUB		108.4 ± 2.5		B	[1969MAC/MCN, 1969MAC/MCN2, 1977PED/RYL]
$C_{15}H_{14}O_3$	[15889-70-0]	2-hydroxy-4-ethoxybenzophenone				
	V	(373–433)	90.7	403	ME	[1984SUR]
$C_{15}H_{14}O_3$	[6547-53-1]	4-(phenylmethoxy)benzeneacetic acid				
	FUS		29.3	396.1	DSC	[2006KUR/PER]
	SUB	(378–387)	107.3 ± 3.0	383	GS	[2006KUR/PER]
$C_{15}H_{14}O_3$	[3459-92-5]	Dibenzyl carbonate				
	V	(342–373)	96.7 ± 0.7	298	GS	[2008KOZ/EME]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_{14}O_4$	[6131-38-0]	2-hydroxy-4,4′-dimethoxybenzophenone				
	FUS		37.6	390.4	DSC	[1999PRI/HAW]
	SUB		121.1		B	[1999PRI/HAW]
	V		83.5		TGA	[1999PRI/HAW]
$C_{15}H_{14}O_4S$	[313057-13-5]	4-(2-propenyloxy)phenyl 5-methoxy-2-thiophene carboxylate				
	FUS		66.94	336.9	DSC	[2000WU/WAN]
$C_{15}H_{14}O_5$	[131-54-4]	2,2′-dihydroxy-4,4′-dimethoxybenzophenone				
	FUS		33.2	412.3	DSC	[1999PRI/HAW]
	SUB		130.2		B	[1999PRI/HAW]
	V		96.9		TGA	[1999PRI/HAW]
	V	(406–497)	77.4	423	A,UV	[1987STE/MAL, 1960SCH/HIR]
$C_{15}H_{14}O_6$	[490-46-0]	(2*R*-*cis*)-2-(3,4-dihydroxyphenyl)-3,4-dihydro-2*H*-1-benzopyran-3,5,7-triol (epicatechin)				
	FUS		56.72	525.0	DSC	[2010PAR/LEE]
$C_{15}H_{15}Cl$	[13389-70-3]	Chloro-di-4-tolylmethane				
	V	(406–453)	75.2	421	A	[1987STE/MAL]
$C_{15}H_{15}ClN_2O_2$	[1982-47-4]	3-[4-[4-chlorophenoxy]phenyl]-1,1-dimethylurea				
	FUS		34.87	425.8	DSC	[1991ACR, 1990DON/DRE]
$C_{15}H_{15}ClN_2O_2$	[556836-79-4]	4-chloro-2′-hydroxy-4′-propoxyazobenzene				
	FUS		29.8	371	DSC	[2003PAJ/ROS]
$C_{15}H_{15}ClO_5$	[111171-33-6]	8-(hydroxymethyl)-6-chloro-5,7-dimethyl-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	TRS		3.59	446.5		
	FUS		25.08	456.4	DSC	[1992HUA/ZHO2]
$C_{15}H_{15}F_{17}O$	[1240205-61-1]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-(pentyloxy)decane				
	FUS		36.82	253.8	DSC	[2010ZAG/CON]
$C_{15}H_{15}N$	[1484-10-2]	*N*-propylcarbazole				
	FUS		19.57	320.4	DSC	[2016STA/KEI]
	V	(324–371)	87.8 ± 0.4	298	GS	[2015EME/VAR]
$C_{15}H_{15}N$	[1484-09-9]	*N*-isopropylcarbazole				
	FUS		18.26	393.9	DSC	[2016STA/KEI]
	TRS		0.64	137.5	DSC	[1986BER/COL]
	TRS		0.38	180		
	FUS		17.73	395.2	DSC	[1991ACR, 1990KAL/DRE]
	SUB	(340–375)	97.7 ± 1.0	298	GS	[2015EME/VAR]
$C_{15}H_{15}NO$	[954-21-2]	*N*-methyldiphenylacetamide				
	FUS		30.23	439.8	DSC	[1990DON/DRE]
$C_{15}H_{15}NO$	[1404112-28-2]	*N*-(4′-methylbiphenyl-3-yl)acetamide				
	FUS		29.0	422.4	DSC	[2015OWU/CHE]
$C_{15}H_{15}NO$	[1215-21-0]	*N*-(4′-methylbiphenyl-4-yl)acetamide				
	FUS		28.9	498.3	DSC	[2015OWU/CHE]
$C_{15}H_{15}NO_2$	[61-68-7]	2-[(2,3-dimethylphenyl)amino]benzoic acid (mefenamic acid)				
	FUS		41.5	503.2	DSC	[2015GAU/VAN]
	FUS		U71.2	503.1	DSC	[2010DOM/POB]
	FUS		38.24	502.0	DSC	[2010AVU/ALE]
	FUS		38.7	503.5	DSC	[2009SUR/TER, 2010SUR/PER, 2015SUR/SIM]
	TRS		18.1	463.2		
	FUS		38.25	503.6	DSC	[2004ROM/BUS]
	FUS		38.2	503.6	DSC	[1999ROM/ESC]
	SUB	(357–398)	132.7 ± 0.8	377	GS	[2009SUR/TER]
	SUB	(357–398)	136.3 ± 0.8	298	GS	[2009SUR/TER, 2009SUR/PER]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_{15}NO_3$	[24033-07-6]	2-methoxy-4-[[(4-methoxyphenyl)imino]methyl]phenol				
	FUS		18.53	408	DSC	[2008SIN/DAS]
$C_{15}H_{15}N_3O_2$	[2832-40-8]	*N*-[4-[(2-hydroxy-5-methylphenyl)azo]phenyl]acetamide (Disperse Yellow 3)				
	SUB	(403–465)	107	434	GS	[1989NIS/AND]
	SUB		140.6			[1968TSU/KOJ, 1988BAU/PER]
$C_{15}H_{15}N_3O_3$	[191979-02-9]	6-(acetylamino)-2-cyano-l(2*H*)-quinolinecarboxylic acid, ethyl ester				
	FUS		35.02	441.2	DSC	[2005LIZ/ZAB]
$C_{15}H_{15}N_3O_4$	[191979-19-8]	2-cyano-6-nitro-l(2*H*)-quinolinecarboxylic acid, butyl ester				
	FUS		25.16	359.1	DSC	[2005LIZ/ZAB]
$C_{15}H_{15}N_3O_4$	[191979-23-4]	2-cyano-6-nitro-l(2*H*)-quinolinecarboxylic acid, 2-methylpropyl ester				
	FUS		28.26	388.8	DSC	[2005LIZ/ZAB]
$C_{15}H_{16}$	[1335-47-3]	Ditolylmethane				
	V	(573–673)	51.8	588		[1964MAN]
	V		63.0			[1958MAT/GEL]
$C_{15}H_{16}$	[1530-03-6]	1,1-diphenylpropane				
	V	(298–343)	71.4 ± 0.4	321	GS	[1999VER5]
	V	(298–343)	72.8 ± 0.4	298	GS	[1999VER5]
$C_{15}H_{16}$	[1081-75-0]	1,3-diphenylpropane				
	V	(342–577)	61.5	357	A	[1987STE/MAL, 1959GIL/TOM]
$C_{15}H_{16}$	[20282-30-8]	3-isopropylbiphenyl				
	V		74.3 ± 0.4	323	C	[2015PAS/MIR]
	V		73.2 ± 0.5	333	C	[2015PAS/MIR]
	V		72.4 ± 0.5	343	C	[2015PAS/MIR]
	V		71.6 ± 0.5	353	C	[2015PAS/MIR]
	V		70.3 ± 0.5	363	C	[2015PAS/MIR]
	V		69.5 ± 0.5	373	C	[2015PAS/MIR]
	V	(434–574)	79.0 ± 0.1	298	EB	[2012NAZ/NES]
	V	(303–358)	76.4 ± 0.8	298	GS	[2012NAZ/NES]
	V	(323–372)	76.6 ± 0.5	298	C	[2012NAZ/NES]
$C_{15}H_{16}N_2O$	[611-92-7]	*N*,*N*′-dimethyl-*N*,*N*′-diphenylurea (methyl centralite)				
	FUS		33.47	395.05	DSC	[2010MEK/KHI, 2013TRA/KHI]
$C_{15}H_{16}N_2O_2$	[12771-68-5]	α-cyclopropyl-α-(4-methoxyphenyl)-5-pyrimidinemethanol				
	FUS		26.63	383.1	DSC	[1990DON/DRE]
$C_{15}H_{16}N_2O_2$	[191979-21-2]	2-cyano′-1(2*H*)-quinolinecarboxylic acid, isobutyl ester				
	FUS		22.5	347.5	DSC	[2005LIZ/ZAB]
$C_{15}H_{16}N_2O_2S$	[6601-00-9]	*N*,*N*′-bis(3-methoxyphenyl)thiourea				
	FUS		43.83	405.2	DSC	[2002ABB/WOH]
$C_{15}H_{16}N_2O_3$	[16460-28-9]	*N*,*N*′-bis(3-methoxyphenyl)urea				
	FUS		36.76	443.2	DSC	[2002ABB/WOH]
$C_{15}H_{16}N2O_2$	[191979-07-4]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, propyl ester				
	FUS		15.6	339.9	DSC	[2005LIZ/ZAB]
$C_{15}H_{16}N_4O$	[1632026-76-6]	4-phenyl-1-(1,1-dimethylethyl)-6,7-dihydro-1*H*-pyrazol[3,4*d*]pyridazin-7-one				
	FUS		26.3	446	DSC	[2013FRI/VIL]
$C_{15}H_{16}N_4O_2$	[4313-14-8]	3-methyl-3′-nitro-4,*N*,*N*-dimethylaminoazobenzene				
	SUB	(368–393)	101.7 ± 1.7	381	ME	[1967GRE/JON]
	SUB	(370–388)	98.7 ± 2.5	379	TE	[1967GRE/JON]
	V	(370–388)	98.6	379	A	[1987STE/MAL]
$C_{15}H_{16}N_4O_2$	[92114-99-3]	3-methyl-4′-nitro-4-*N*,*N*-dimethylaminoazobenzene				
	SUB	(369–392)	125.5 ± 1.3	381	TE	[1967GRE/JON, 1987STE/MAL]
	SUB	(371–390)	126.4 ± 3.8	381	ME	[1967GRE/JON]
$C_{15}H_{16}N_4O_6$	[74734-24-0]	2,4-bis(2-oxo-3-oxazolidin-3-ylcarbonylamino)toluene				
	FUS		5.2	479.5	DSC	[1990SHI/HAY]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_{16}O$	[885-77-8]	di-(4-tolyl)methanol				
	V	(413–478)	81.7	428	A	[1987STE/MAL]
$C_{15}H_{16}O$	[26370-27-4]	1′-isovaleronaphthone				
	V	(409–593)	76.2	424	A	[1987STE/MAL, 1947STU]
$C_{15}H_{16}O$	[599-64-4]	4-(1-methyl-1-phenylmethyl)phenol (*p*-α-cumylphenol)				
	FUS		22.8	346.2	DSC	[1998JAM/PAL]
	FUS		21.68	346.4	AC	[1996DOM/HEA, 1957MAS]
$C_{15}H_{16}O_2$	[80-05-7]	2,2-bis(4-hydroxyphenyl)propane (bisphenol A)				
	FUS		31.6	431.2	DSC	[2014COS/DAV]
	FUS		30.1	433		[1996DOM/HEA, 1985NOV/TSV]
	SUB	(370–394)	137.9 ± 0.7	298	ME	[2014DAV/HER, 2014COS/DAV]
	V	(466–634)	102.2	481	A	[1987STE/MAL, 1947STU]
$C_{15}H_{16}O_2$	[2235-01-0]	Dimethoxydiphenylmethane				
	FUS		27.8	380	DSC	[1998VER/PEN]
	SUB		103.9 ± 1.7	298		[1998VER/PEN]
$C_{15}H_{16}O_3$		Methyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		28.1	367.7	DSC	[1994WEB/MEY]
$C_{15}H_{16}S_2$	[14252-46-1]	2,2-bis(phenylthio)propane				
	FUS		24.4	329		[1997STE/CHI]
$C_{15}H_{17}Br_2NO_2$	[1689-99-2]	3,5-dibromo-4-hydroxybenzonitrile octanoyl ester				
	FUS		26.49	318.3	DSC	[1990DON/DRE]
$C_{15}H_{17}ClN_2O_2$	[33083-17-9]	(*RS*)-1-(4-chlorophenoxy)-1-imidazol-1-yl-3,3-dimethyl-2-butanone				
	FUS		29.0	372.0	DSC	[2014KIM/LIM]
$C_{15}H_{17}ClN_4$	[88671-89-0]	α-butyl-α-(4-chlorophenyl)-1*H*-1,2,4-triazole-l-propanenitrile (myclobutanil)				
	FUS		30.93	348.8		[2005SUN/LIU2]
$C_{15}H_{17}NO_2$	[16112-55-3]	*N*-(2-hydroxy-3-phenoxypropyl)phenylamine				
	SUB	(323–333)	113.9	328	A,ME	[1987STE/MAL, 1976KUZ/MIR]
	SUB		113.8 ± 2.1		ME	[1976KUZ/MIR]
	V	(343–373)	99.9	358	A,ME	[1987STE/MAL, 1976KUZ/MIR]
$C_{15}H_{17}NO_2S$	[923767-70-8]	*N*-(2,6-dimethylphenyl)-3-methylbenzenesulfonamide				
	FUS (I)		15.91	394.0		
	FUS (II)		25.79	397.5	DSC	[2010SAN/SAR]
$C_{15}H_{18}$	[86-89-5]	1-pentylnaphthalene				
	V	(415–535)	62.7	430	A	[1987STE/MAL]
$C_{15}H_{18}Cl_2N_2O_3$	[19666-30-9]	3-[2,4-dichloro-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3*H*)-one				
	FUS		26.39	360.6	DSC	[1990DON/DRE]
$C_{15}H_{18}N_2$	[101-72-4]	4-isopropylaminodiphenylamine				
	SUB	(323–348)	120.7	335	GS	[1971FEL/KUZ]
$C_{15}H_{18}N_2O$	[102518-79-6]	5-amino-11-ethylidene-5,6,9,10-tetrahydro-7-methyl-5,9-methanocycloocta[*b*]pyridin-2(l,*H*)-one				
	FUS (II)		19.5	505.6		
	FUS (III)		22.3	497.8	DSC	[2013ZHA/LU]
$C_{15}H_{18}N_2O_6$	[485-31-4]	2-*sec*-butyl-4,6-dinitrophenyl 3-methylcrotonate				
	FUS		18.89	341.3	DSC	[1990DON/DRE]
$C_{15}H_{18}O$	[20490-22-6]	2,4,6-triallylphenol				
	V	(423–571)	61.0	438	A	[1987STE/MAL]
$C_{15}H_{18}O$	[5737-13-3]	4*H*-cyclopenta[def]phenanthren-4-one				
	FUS		16.3	443.9	DSC	[2010KES/AUC]
$C_{15}H_{19}BrN_2S$	[1383254-31-6]	*N*-(4-bromophenyl)-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		44.3	448.3	DSC	[2012BLO/OLK]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(374–411)	139.9 ± 1.6	392	GS	[2012OLK/SHA]
	V		112.1	298	Sub–Fus	[2012OLK/SHA]
$C_{15}H_{19}ClN_2S$	[1383254-32-7]	*N*-(4-chlorophenyl)-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		41.9	435.7	DSC	[2012BLO/OLK]
	SUB	(369–403)	137.3 ± 1.5	436	GS	[2012OLK/SHA]
	V		113.0	298	Sub–Fus	[2012OLK/SHA]
$C_{15}H_{19}Cl_3O_3$	[1928-41-2]	2,4,5-trichlorophenoxyacetic acid, heptyl ester				
	V	(460–573)	92.3	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{15}H_{19}N_3O_8$	[53848-88-7]	Octyl 2,4,6-trinitrobenzoate				
	TRS		2.07	312		
	FUS		29.16	396.7	DSC	[1974WAR/WIL]
$C_{15}H_{20}Cl_2O_3$	[1917-96-0]	2,4-dichlorophenoxyacetic acid, heptyl ester				
	V	(460–573)	88.3	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(460–573)	81.9	516	GC	[1966JEN/SCH]
$C_{15}H_{20}Cl_2O_3$	[1917-94-8]	2,4-dichlorophenoxyacetic acid, 1-propylbutyl ester				
	V	(460–573)	77.3	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(460–573)	75.9	516	GC	[1966JEN/SCH]
$C_{15}H_{20}Cl_2O_4$	[3966-11-8]	2,4-dichlorophenoxyacetic acid,(1-methyl-2-butoxy)ethyl ester				
	V	(443–573)	82.5	458	A	[1987STE/MAL]
$C_{15}H_{20}N_2O_4S$	[968-81-0]	4-acetyl-*N*-[(cyclohexylamino)carbonyl]benzene sulfonamide (acetohexamide)				
	FUS		41.08	457	DSC	[1982MAR/MIR]
$C_{15}H_{20}N_2S$	[1383254-23-6]	*N*-phenyl-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		21.6	386.5	DSC	[2012BLO/OLK, 2012OLK/SHA]
	SUB	(342–369)	123.2 ± 2.0	356	GS	[2012OLK/SHA]
	V		109.2	298	Sub–Fus	[2012OLK/SHA]
$C_{15}H_{20}N_2S$	[1583299-20-0]	(4-ethylphenyl)-[3-thia-1-azabicyclo[3.3.1]non-2-ylidene]amine				
	FUS		16.4	394.6	DSC	[2014BLO/OLK]
	SUB	(359–389)	98.2 ± 1.0	374	GS	[2014BLO/OLK]
	SUB	(359–389)	101.9 ± 1.0	298	GS	[2014BLO/OLK]
$C_{15}H_{20}N_4O_4$	[31167-32-5]	1,1′-(1,5-pentanediyl)bisthymine				
	FUS		32.03	524	DSC	[2002ITA/KAM]
$C_{15}H_{20}O_2$	[546-43-0]	Helenine, alantolactone				
	V	(430–548)	112.7	445	A	[1987STE/MAL]
$C_{15}H_{21}NO$	[13430-30-3]	2-methyl-1-phenyl-2-*N*-piperidinyl-1-propanone				
	FUS		16.74	310.2		[1994BEC/RUE]
	SUB		94.8 ± 1.3		B	[1994WEL/VER]
$C_{15}H_{21}NO_2$	[57-42-1]	1-methyl-4-phenylpiperidine-4-carboxylic acid ethyl ester (meperidine)				
	FUS		24.6	308.2	DSC	[1988ROY/FLY]
$C_{15}H_{21}NO_4$	[57837-19-1]	Methyl *N*-(2-methoxyacetyl)-*n*-(2,6-xylyl)-(*dl*)-alaninate				
	FUS		26.46	345.5	DSC	[1990DON/DRE]
$C_{15}H_{21}N_3O_3S$	[21187-98-4]	*N*-(4-methylbenzenesulfonyl)-*N*′-[3-azabicyclo(3,3,0)oct-3-yl]urea (gliclazide)				
	FUS		44.2	444.6	DSC	[2006WAS/HOL]
$C_{15}H_{22}$	[26460-76-4]	1-methyldiamantane				
	SUB	(310–333)	80.7 ± 0.4	321	TSGC	[1975CLA/KNO]
$C_{15}H_{22}$	[30545-28-9]	3-methyldiamantane				
	SUB	(305–327)	103.1 ± 1.0	316	TSGC	[1975CLA/KNO]
$C_{15}H_{22}$	[28375-86-2]	4-methyldiamantane				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(310–333)	79.4 ± 1.25	321	TSGC	[1975CLA/KNO]
$C_{15}H_{22}ClNO_2$	[51218-45-2]	2-chloro-*N*-(2-ethyl-6-methylphenyl)-*N*-(2-methoxy-1-methylethyl)acetamide				
	FUS		17.0	299	DSC	[2005SBI/VEC]
	V		70 ± 1	436	TGA	[2007VEC]
$C_{15}H_{22}N_2O$	[24358-84-7]	*N*-(2,6-dimethylphenyl)-1-methyl-2-piperidinecarboxamide				
	FUS		17.77	426.2	DSC	[1997NEM/ACS]
$C_{15}H_{22}N_2O_2$	[5124-30-1]	Dicyclohexylmethane-4,4′-diisocyanate				
	V	(326–404)	80.4	341	A	[1987STE/MAL]
$C_{15}H_{22}N_2O_4$	[92700-71-5]	Octyl *N*-(4-nitrophenyl) carbamate				
	FUS		38.85	383.6	DSC	[1993TIE/FRA]
$C_{15}H_{22}N_2O_5$	[138517-11-0]	(4-nitrophenyl)-8-hydroxyoctyl carbamate				
	FUS		44.07	386.9	DSC	[1993TIE/FRA]
$C_{15}H_{22}O_2$	[16225-26-6]	3,5-di-*tert*-butylbenzoic acid				
	SUB	(339–357)	108.4 ± 4.2	348	ME	[1974ROU/TUR, 1987STE/MAL, 1977PED/RYL]
$C_{15}H_{22}O_2$	[37942-07-7]	3,5-di-*tert*-butyl-2-hydroxybenzaldehyde				
	SUB	(296–312)	95.7 ± 0.5	304	ME	[2010RIB/GON]
	SUB	(296–312)	96.0 ± 0.5	298	ME	[2010RIB/GON]
$C_{15}H_{22}O_2$	[3575-31-3]	4-octylbenzoic acid				
	SUB (I)	(357–365)	134.7 ± 1.5	298	ME	[2004MON/ALM]
	SUB (II)	(367–372)	135.4 ± 1.3	298	ME	[2004MON/ALM]
$C_{15}H_{22}O_3$	[79785-45-8]	3-octyloxybenzoic acid				
	FUS		33.12	347.1	DSC	[2001LAI/LEE]
$C_{15}H_{22}O_3$	[2493-84-7]	4-octyloxybenzoic acid				
	SUB	(363–372)	141.1 ± 0.9	368	ME	[2010FON/SAN]
	SUB (II)	(363–372)	161.4 ± 1.2	298	ME	[2010FON/SAN]
	SUB		163.0 ± 1.2	298		[2010RIB/FER3]
$C_{15}H_{22}O_3$	[19715-19-6]	3,5-di-*tert*-butylsalicylic acid				
	FUS		22.92	437.5	DSC	[2003YU/TAN]
	SUB		83.9 ± 2.6		DSC	[2003YU/TAN]
$C_{15}H_{22}O_5$	[63968-64-9]	Octahydro-3,6,9-trimethyl-3,12-epoxy-12*H*-pyrano[4,3-*j*]-1,2-benzodioxepin-10(3*H*)-one (artemisinine)				
	FUS (orthorhombic)		21.0	424.6		
	FUS (triclinic)		19.9	427.1	DSC	[2014HOR/SEI]
	FUS (I)		22.8	428.2		
	FUS (II)		23.41	428.1	DSC	[1997CHA/YUE]
$C_{15}H_{23}NO_2$	[23846-72-2]	(+)-1-(*o*-allylphenoxy)-3-(isopropylamino)-2-propanol (alprenolol)				
	FUS		23.78	298.5	DSC	[1999LI/ZEL]
$C_{15}H_{23}NO_2$	[13655-52-2]	(±)-1-(*o*-allylphenoxy)-3-(isopropylamino)-2-propanol (alprenolol)				
	FUS		35.61	331.2	DSC	[1999LI/ZEL]
$C_{15}H_{23}N_3O_2$	[135742-55-1]	*N*-capryl-pyrazinamide				
	FUS		50.58	360.5	DSC	[1991LIU/GUO]
$C_{15}H_{23}N_3O_4S$	[23672-07-3]	(−)-*N*-1-(ethylpyrrolidm-2-ylmethyl)-2-methoxy-5-sulfamoylbenzamide (sulpiride)				
	FUS		42.01	459.5		[1999LI/ZEL, 1987PIT/VAL]
$C_{15}H_{23}N_3O_4S$	[15676-16-1]	(±)-*N*-1-(ethylpyrrolidin-2-ylmethyl)-2-methoxy-5-sulfamoylbenzamide (sulpiride)				
	FUS		46.15	451	DSC	[1999LI/ZEL, 1987PIT/VAL]
$C_{15}H_{24}$	[1081-77-2]	Nonylbenzene				
	V	(304–466)	74.1 ± 0.5	298	MM	[1998MOK/RAU, 2006VER/KOZ]
	V	(316–415)	69.7	331	GS	[1986ALL/JOS]
	V		74.8	298		[1971WIL/ZWO]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_{24}$	[717-74-8]	1,3,5-triisopropylbenzene				
	V	(283–323)	64.3 ± 0.3	303	GS	[1998VER7]
	V	(283–323)	64.6 ± 0.6	298	GS	[1998VER7]
	V	(282–388)	67.4	297		[1993KAS/MOK]
$C_{15}H_{24}$	[15181-11-0]	1,3-di-*tert*-butyl-5-methylbenzene				
	SUB	(275–301)	82.4 ± 0.5	288	T	[1998VER]
	SUB	(275–301)	81.8 ± 0.5	298	T	[1998VER]
	V	(309–338)	61.8 ± 0.9	310	GS	[1998VER]
	V	(309–338)	63.3 ± 0.9	298	GS	[1998VER]
$C_{15}H_{24}$	[18794-84-8]	(*E*)-β-farnesene				
	V	(363–473)	72.5	298	GC	[2005HOS/GRY]
$C_{15}H_{24}$	[87-44-5]	β-caryophyllene				
	V	(363–463)	65.5	298	GC	[2005HOS/GRY]
$C_{15}H_{24}N_2O_3$	[490-98-2]	4-(butylamino)-2-hydroxybenzoic acid, 2-(dimethylamino)ethyl ester (salicaine)				
	FUS		26.8	319.4	DSC	[2006SCH/SCH]
$C_{15}H_{24}O$	[497-39-2]	2,4-di-*tert*-butyl-5-methylphenol				
	V	(376–555)	67.0	391	A	[1987STE/MAL, 1947STU]
$C_{15}H_{24}O$	[616-55-7]	2,4-di-*tert*-butyl-6-methylphenol				
	V	(359–543)	59.8	374	A	[1987STE/MAL]
$C_{15}H_{24}O$	[128-37-0]	2,6-di-*tert*-butyl-4-methylphenol				
	FUS		19.08	345.0	DSC	[2010PAR/LEE]
	FUS		19.85	341.7	DSC	[1999VER]
	FUS		23.85	343.7	DTA	[1972INO/LIA]
	SUB		91.9 ± 3.2	298	C	[2001RIB/MAT]
	SUB	(298–338)	86.8 ± 0.8	319	GS	[1999VER]
	SUB	(298–338)	88.0 ± 0.8	298	GS	[1999VER]
	SUB	(303–343)	87.8	318	GS	[1987STE/MAL, 1971FEL/KUZ]
	SUB		U117.3	298	C	[1971BER/GIR, 1999VER]
	V	(303–343)	87.8	318	A	[1987STE/MAL]
	V	(358–536)	61.5	373	A	[1987STE/MAL, 1947STU]
$C_{15}H_{24}O$	[2219-84-3]	2-methyl-4-(1,1,3,3-tetramethylbutyl)phenol				
	V	(447–683)	67.1	462	A	[1987STE/MAL]
$C_{15}H_{24}O$	[2219-84-3]	3-methyl-4-(1,1,3,3-tetramethylbutyl)phenol				
	V	(436–549)	65.5	451	A	[1987STE/MAL]
$C_{15}H_{24}O$	[4979-46-8]	4-methyl-2-(1,1,3,3-tetramethylbutyl)phenol				
	V	(415–545)	65.0	430	A	[1987STE/MAL]
$C_{15}H_{24}O$	[406944-31-8]	4-(3,6-dimethylheptan-3-yl)phenol				
	V		89.4	298	ME	[2001LAL/SCH]
$C_{15}H_{24}O$	[104-40-5]	4-nonylphenol				
	V	(487–595)	65.0	502	A,EB	[1987STE/MAL, 1976HON/SIN]
$C_{15}H_{24}O$	[115-71-9]	α-santalol				
	V	(293–450)	58.3	308	A	[1987STE/MAL]
$C_{15}H_{24}O_2$	[1991-52-2]	2,5-di-*tert*-butyl-4-methoxyphenol				
	FUS		26.9	374.4		[1972ALV/BOR]
	V	(423–453)	64.4	438	A	[1987STE/MAL]
$C_{15}H_{24}O_2$	[6121-64-8]	1,3-dimethoxy-5-heptylbenzene				
	V	(419–488)	75.5	434	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_{15}H_{24}O_2$	[41442-51-7]	1,3-dimethoxy-5-methyl-2-hexylbenzene				
	V	(410–475)	72.3	425	A,GC	[1987STE/MAL, 1975KUN/LIL]
$C_{15}H_{24}O_4$	[1152-57-4]	Dicyclohexyl malonate				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(324–353)	93.7 ± 1.1	298	GS	[2008LIP/KRA]
$C_{15}H_{24}O_6$	[64617-28-3]	Aconitic acid, tripropyl ester				
	V	(359–500)	72.3	374	A	[1987STE/MAL, 1953MAG/MOD]
$C_{15}H_{26}O$	[489-86-1]	Guaiol				
	V	(373–561)	62.2	388	A	[1987STE/MAL]
$C_{15}H_{26}O_6$		Camphorenic acid, triethyl ester				
	V	(423–574)	69.0	438	A	[1987STE/MAL, 1947STU]
$C_{15}H_{26}O_6$	[5333-54-0]	Tripropyl 1,2,3-propanetricarboxylate				
	V	(360–460)	76.5	375	A	[1987STE/MAL, 1953MAG/MOD]
$C_{15}H_{26}O_6$	[60-01-5]	Tributyrin				
	V	(324–354)	98.5 ± 0.4	298	GS	[2010MAS/KRA]
	V		83.5	308	TGA	[1990KIS/SHO]
	V		84.9 ± 2.5	298	TGA	[1990KIS/SHO]
	V	(318–364)	81.4	333	A	[1987STE/MAL, 1949PER/WEB2]
	V		107.1 ± 1.0	298	C	[1986NIL/WAD]
	V	(318–364)	88.2	298	T	[2010MAS/KRA, 1949PER/WEB2]
$C_{15}H_{26}O_6$	[14295-64-8]	Glycerol tri(2-methypropanoate)				
	V	(329–371)	95.3 ± 0.6	298	GS	[2010MAS/KRA]
$C_{15}H_{28}Cl_4$	[3922-32-5]	1,1,1,15-tetrachloropentadecane				
	V	(340–392)	103.5	355	A	[1987STE/MAL, 1960MAL/MAL]
$C_{15}H_{28}O$	[1604-35-9]	3,7,11-trimethyl-1-dodecyn-3-ol				
	V	(401–524)	43.2 ± 1.1	463	Static	[1988BAG/GUR, 1986WHI]
$C_{15}H_{28}O$	[502-72-7]	Cyclopentadecanone				
	FUS		8.8	338.4	DSC	[1997JIM/ROU]
	SUB	(296–315)	86.0 ± 0.6	305	ME	[1938WOL/WEG, 1960JON] [1997JIM/ROU]
	SUB		77.4 ± 0.8			[1970COX/PIL]
$C_{15}H_{28}O_2$	[2156-97-0]	Dodecyl acrylate				
	V	(432–573)	64.6	447	A	[1987STE/MAL]
$C_{15}H_{28}O_2$	[106-02-5]	1,15-pentadecanolide				
	FUS		7.0	309.5	DSC	[2011EME/VER]
	SUB		85.9 ± 0.5	298	V + F	[2011EME/VER]
	SUB	(290–310)	81.3	300	ME	[1987STE/MAL, 1960JON, 1954SER/VOI]
	V	(318–378)	77.3	318	GS	[2011EME/VER]
	V	(318–378)	74.6	348	GS	[2011EME/VER]
	V	(318–378)	73.2	363	GS	[2011EME/VER]
	V	(318–378)	71.8	378	GS	[2011EME/VER]
	V	(318–378)	79.1 ± 0.5	298	GS	[2011EME/VER]
	V	(363–443)	78.2	378	A	[1987STE/MAL]
	V	(310–320)	74.2	315	A,ME	[1987STE/MAL, 1954SER/VOI]
$C_{15}H_{28}O_2$	[65954-19-0]	(*Z*)-4-tridecenyl acetate				
	V		82.7 ± 5.5	298	CGC	[2016GOO/HAS]
$C_{15}H_{28}O_2$	[34270-22-9]	(*Z*)-7-tridecenyl acetate				
	V	(343–388)	84.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[56577-30-1]	(*E*)-7-tridecenyl acetate				
	V	(343–388)	84.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[35835-78-0]	(*Z*)-9-tridecenyl acetate				
	V	(343–388)	85.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[52957-19-4]	(*E*)-9-tridecenyl acetate				
	V	(343–388)	85.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[33951-95-0]	(*Z*)-11-tridecenyl acetate				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(343–388)	86.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[56195-36-9]	(*E*)-11-tridecenyl acetate				
	V	(343–388)	86.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{28}O_2$	[56219-06-8]	Methyl Z 9-tetradecenoate				
	V		87.1 ± 0.7	298	CGC	[2007LIP/KAP]
$C_{15}H_{28}O_2$	[106-02-5]	Pentadecanolactone				
	TRS		27.3	283		
	FUS	(10–370)	6.99	308.5	AC	[1984DOM/EVA, 1981LEB/YEV]
$C_{15}H_{28}O_3$	[37826-51-0]	Decyl levulinate				
	V	(423–580)	76.1	438	A	[1987STE/MAL]
	V		72.0	524		[1933COW/SCH]
$C_{15}H_{28}O_3$	[6707-60-4]	1,6-dioxa-7-cycloheptadecanone				
	V	(403–463)	75.9	418	A	[1987STE/MAL]
$C_{15}H_{28}O_5$	[1085702-05-1]	Decyl[1-(methoxycarbonyl)ethyl]carbonate				
	V	(411–592)	73.8	426	A	[1987STE/MAL, 1950REH/DIX2]
$C_{15}H_{29}N$	[2570-26-5]	Pentadecanenitrile				
	V	(336–372)	88.1 ± 0.3	298	GS	[2005EME/VER]
	V	(403–596)	75.5	418	A	[1987STE/MAL]
$C_{15}H_{29}NO_3$		2-[2-ethyl(hexanoyloxy)]propionic acid, butylamide				
	V	(378–433)	81.0	393	A	[1987STE/MAL]
$C_{15}H_{29}NO_3$	[22220-07-1]	*N*-decanoyl-(*L*)-valine				
	TRS		21.3	378.1		
	FUS		15.4	380.6	DSC	[1986MIY/MAT]
$C_{15}H_{29}NO_3$	[83871-16-3]	*N*-decanoyl-(*DL*)-valine				
	FUS		63.1	358.1	DSC	[1986MIY/MAT]
$C_{15}H_{29}NO_3$		*N*-dodecanoyl-(*L*)-alanine				
	FUS		37.6	356.1	DSC	[1986MIY/MAT]
$C_{15}H_{29}NO_3$	[19184-57-7]	*N*-(1-oxotridecyl)glycine				
	TRS + FUS		35.9	390.5	DSC	[2014RED/KRO]
$C_{15}H_{30}$	[1795-21-7]	Decylcyclopentane				
	FUS	(11–321)	33.14	251	AC	[1996DOM/HEA, 1965MES/TOD]
	V	(358–411)	71.1	373	A	[1987STE/MAL]
	V		75.7	298		[1971WIL/ZWO]
	V	(453–553)	59.7	468	A,MM	[1987STE/MAL, 1954CAM/FOR]
$C_{15}H_{30}$	[2883-02-5]	Nonylcyclohexane				
	V		74.7	298		[1971WIL/ZWO]
$C_{15}H_{30}$	[13360-61-7]	1-pentadecene				
	V	(375–407)	65.2	390	A	[1987STE/MAL]
	V	(423–658)	53.2	570		[1975AMB/ELL]
	V		75.1	298		[1971WIL/ZWO]
	V	(443–543)	59.3	458	A	[1987STE/MAL, 1955CAM/ROS]
$C_{15}H_{30}$	[295-48-7]	Cyclopentadecane				
	TRS		8.5	210.1		
	FUS		8.5	336.6	DSC	[1987DRO/MOL, 1987DRO/EME]
	SUB		74.6 ± 0.4			[1957VAN, 1970COX/PIL]
$C_{15}H_{30}N_3PS_6$	[69267-80-7]	Phosphorus-tris(*N*,*N*-diethyldithiocarbamate)				
	SUB		143 ± 2	298		[1987AIR/DES]
$C_{15}H_{30}O$	[56218-94-1]	(*Z*)-9-pentadecen-1-ol				
	V	(363–403)	105.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[64437-40-7]	(*E*)-9-pentadecen-1-ol				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(363–403)	105.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[64437-42-9]	(*Z*)-10-pentadecen-1-ol				
	V	(363–403)	105.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[64437-44-1]	(*E*)-10-pentadecen-1-ol				
	V	(363–403)	106.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[69282-63-9]	(*Z*)-11-pentadecen-1-ol				
	V	(363–403)	106.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[69222-14-6]	(*E*)-11-pentadecen-1-ol				
	V	(363–403)	106.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[158906-50-4]	(*Z*)-12-pentadecen-1-ol				
	V	(363–403)	106.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[69222-15-7]	(*E*)-12-pentadecen-1-ol				
	V	(363–403)	107	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[158906-51-5]	(*Z*)-13-pentadecen-1-ol				
	V	(363–403)	107.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[158906-52-6]	(*E*)-13-pentadecen-1-ol				
	V	(363–403)	107.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{15}H_{30}O$	[2345-28-0]	2-pentadecanone				
	FUS		54.39	312.2	DSC	[1996DOM/HEA, 1979SUN/SVE2]
	SUB		139.3 ± 1.6	298	C	[1979SUN/SVE2]
	V	(422–575)	67.8	437	A	[1987STE/MAL]
	V	(559–658)	57.9	574	A	[1987STE/MAL]
	V		85.4 ± 1.7	298	S–F	[1979SUN/SVE2]
$C_{15}H_{30}O$	[818-23-5]	8-pentadecanone				
	V	(443–568)	65.3	458	A	[1987STE/MAL]
	V	(443–589)	65.4	458	A	[1987STE/MAL, 1975AMB/ELL]
	V	(444–590)	53.0	567		[1975AMB/ELL]
	V	(438–462)	61.9	450	A,ME	[1987STE/MAL, 1938UBB]
$C_{15}H_{30}O_2$	[124-10-7]	Methyl tetradecanoate (methyl myristate)				
	FUS		45.72	293.9	DSC	[2016LIS/FAR]
	FUS		50.21	291.6	DSC	[1993ACR, 1991CHI/BRA]
	SUB		137.7 ± 2.1	281	ME	[1965DAV/KYB]
	V	(333–462)	75.9 ± 0.4	398	Static	[2011BEN/KHI]
	V	(333–462)	90.1 ± 0.4	298	Static	[2011BEN/KHI]
	V		79.8	350	CE	[2002VAN/VAN]
	V		76.0 ± 0.2	382	CE	[2002VAN/VAN]
	V		85.9 ± 0.8	298	CE	[2002VAN/VAN]
	V	(393–473)	86.6	298	GC	[1997KRO/VEL]
	V	(453–543)	65.3	498	GC	[1993HUS/SAR]
	V		86.2 ± 1.0	298	GC,C	[1980FUC/PEA]
	V		87.0 ± 0.9	298	C	[1977MAN/SEL]
	V	(389–519)	75.6	404	A	[1987STE/MAL, 1963ROS/SCH]
	V	(364–417)	77.4	379	MG, OM	[1952SCO/MAC]
$C_{15}H_{30}O_2$	[28267-29-0]	Ethyl tridecanoate				
	FUS		40.7	272.4	AC	[2005VAN/OON]
$C_{15}H_{30}O_2$	[10233-13-3]	Isopropyl dodecanoate				
	V	(305–452)	81.5	320		[2001BUR/JOS]
	V	(390–469)	66.1	405	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{15}H_{30}O_2$	[3681-78-5]	Propyl dodecanoate				
	V	(423–483)	84.7	298	GC	[1997KRO/VEL]
	V	(396–479)	66.9	411	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_{30}O_2$	[1072-33-9]	Tridecyl acetate				
	V	(313–358)	87.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{15}H_{30}O_2$	[245658-47-3]	3,3-dimethylbutanoic acid, 1,1,5-trimethylhexyl ester				
	V	(333–378)	67.4	298	CGC	[1999VER/HEI]
$C_{15}H_{30}O_2$	[1002-84-2]	Pentadecanoic acid				
	TRS		8.7	319.6		
	FUS		44.8	325	DSC	[2011EGO/MAR]
	TRS		8.2	321.9		
	FUS		40.4	325.5	DSC	[2007GBA/NEG, 2008GBA/NEG, 2009GBA/NEG]
	TRS	(90–345)	8.12	318.7		
	FUS	(90–345)	41.52	325.7	AC	[1996DOM/HEA, 1982SCH/VAN2]
	FUS		46.1	324.9		[1976BER/BER, 1975BER/LEO]
	TRS		7.3	319.3		
	FUS		42.7	325.9		[1964ADR/DEK]
	SUB	(275–293)	144.3		TPTD	[2005CHA/ZIE]
	SUB	(283–305)	178		TPTD	[2001CHA/TOB]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						
	V		116.6 ± 9.2	298	CGC	[2013WIL/CHI]
	V	(431–613)	94	446	A	[1987STE/MAL]
	V	(347–367)	108.5 ± 2.0	357	ME,TE	[1982DEK/SCH]
$C_{15}H_{30}O_3$	[4617-33-8]	15-hydroxypentadecanoic acid				
	SUB	(294–316)	103		TPTD	[2005CHA/ZIE]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						
$C_{15}H_{30}O_3$	[6283-92-7]	Dodecyl lactate				
	V	(367–583)	80.5	382	A	[1987STE/MAL, 1950REH/DIX]
$C_{15}H_{30}O_3$	[70160-09-7]	Decyl 2-ethoxypropionate				
	V	(423–523)	69.8	438	A	[1987STE/MAL, 1948DIX/REH]
$C_{15}H_{30}O_6$	[63364-38-5]	3,3,6,6,9,9-tetraethyl-1,2,4,5,7,8-hexaoxacyclononane				
	V	(403–473)	63.6	298	CGC	[2007CAN/EYL]
$C_{15}H_{31}Br$	[629-72-1]	1-bromopentadecane				
	V	(450–661)	69.5	465	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}Cl$	[4862-03-7]	1-chloropentadecane				
	V		92.6	298		[2006BOL/NER2]
	V	(439–645)	55.4	454	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}F$	[1555-17-5]	1-fluoropentadecane				
	V	(413–593)	63.8	428	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}I$	[35599-78-1]	1-iodopentadecane				
	V	(464–673)	94.6	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(464–673)	70.6	479	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{15}H_{31}NO$	[7438-09-7]	*N*-methyl tetradecanamide				
	SUB	(332–347)	130.4 ± 0.8	340	ME	[1959DAV/JON, 1987STE/MAL]
$C_{15}H_{31}NO_2$	[5468-40-6]	*N*,*N*-dihexyl lactamide				
	V	(418–453)	79.4	433	A	[1987STE/MAL, 1953FEI/FIL]
$C_{15}H_{31}NO_2$	[5422-41-3]	*N*-dodecyl lactamide				
	V	(408–476)	103.9	423	A	[1987STE/MAL, 1950RAT]
$C_{15}H_{32}$	[629-62-9]	Pentadecane				
	TRS		8.88	269.3		
	FUS		34.62	282.3	DSC	[2015VEL/ORT]
	TRS		9.37	270.5		
	FUS		36.8	282.8	DSC	[2005HUA/SIM]
	TRS		8.7	270.3		

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		34.2	282.7	DSC	[2004MON/RAJ]
	TRS		9.17	270.9		
	FUS		34.2	282.7	DSC	[1999MET/RAJ]
	TRS		9.17	270.9		
	FUS		34.6	283.1		[1996DOM/HEA, 1954FIN/GRO2]
	SUB		107.8	298	B	[1972MOR3]
	V		72.9	334	C	[1996VIT/CHA]
	V		71.8	344	C	[1996VIT/CHA]
	V	(453–503)	75.7	298	CGC	[1995CHI/HOS]
	V	(423–473)	76.2	298	CGC	[1995CHI/HOS]
	V	(363–413)	76.4	298	CGC	[1995CHI/HOS]
	V		76.8	298		[1994RUZ/MAJ]
	V	(366–409)	67.5	381	A	[1987STE/MAL]
	V	(333–409)	66.4	350	GS	[1986ALL/JOS]
	V		75.4 ± 1.2	298	C	[1979SUN/SVE]
	V		70.8	353	C	[1979SUN/SVE]
	V		68.8	373	C	[1979SUN/SVE]
	V		72.2 ± 1.2	333	C	[1979SUN/SVE]
	V		76.2 ± 0.4	298	C	[1972MOR2]
	V		76.2	298		[1971WIL/ZWO]
	V	(447–546)	59.6	462	A	[1987STE/MAL, 1955CAM/ROS]
	V	(430–464)	61.9	447	ME	[1938UBB]
$C_{15}H_{32}$	[1560-95-8]	2-methyltetradecane				
	V	(402–537)	58.8	417	A	[1987STE/MAL]
$C_{15}H_{32}$	[18435-22-8]	3-methyltetradecane				
	V	(403–538)	58.4	418	A	[1987STE/MAL]
$C_{15}H_{32}$	[25117-24-2]	4-methyltetradecane				
	V	(398–536)	55.9	413	A	[1987STE/MAL]
$C_{15}H_{32}$	[25117-32-2]	5-methyltetradecane				
	V	(398–535)	56.1	413	A	[1987STE/MAL]
$C_{15}H_{32}$	[18435-20-6]	2,3-dimethyltridecane				
	V	(399–537)	56.3	414	A	[1987STE/MAL]
$C_{15}H_{32}$	[61868-05-1]	2,4-dimethyltridecane				
	V	(393–523)	57.9	408	A	[1987STE/MAL]
$C_{15}H_{32}$	[103387-11-7]	2,4,6-trimethyldodecane				
	V	(382–508)	55.8	397	A	[1987STE/MAL]
$C_{15}H_{32}N_2O$	[32954-73-7]	1-tetradecyl urea				
	TRS		1.0	227.1		
	TRS		1.7	369.2		
	FUS		50.9	387.4	DSC	[2005HAS/TAJ]
$C_{15}H_{32}O$	[629-76-5]	1-pentadecanol				
	FUS		29.6	316.4	DSC	[2004VEN/CAL]
	FUS	(298–380)	53.62	316.9		[2003VAN/VAN]
[Note: The value of 53.62 includes both the enthalpy of fusion as well as the enthalpy of solid-to-solid transition that occurs at 315.4 K.]						
	TRS (β to α)		23.64	316		
	FUS (α)		30.35	316.9		
	FUS (β)		54.73	316.6	AC	[1974MOS/MOU]
	V		103.5 ± 3.3	298	CGC	[2006NIC/KWE]
	V	(319–358)	95.5	339	GS	[2001KUL/VER2]
	V	(319–358)	102.5	298	GS	[2001KUL/VER2]
	V	(353–393)	107.2	298	CGC	[1994KOU/HOS, 2000OVA/KOU]
	V	(343–393)	92.4	368		[1992NGU/KAS]
	V	(438–600)	75.0	453	A	[1987STE/MAL]
	V	(453–584)	72.4	468	A	[1987STE/MAL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_{32}O_2$	[14722-40-8]	1,15-pentadecanediol				
	TRS		38.3	349.0		
	FUS		27.0	361.2	DSC	[2014BAD/NOW]
	TRS		33.0	346.2		
	FUS		24.2	364.0	DSC	[2009EGO/MAR]
	TRS		35.1	349.4		
	FUS		23.6	361.4	DSC	[1999OGA/NAK]
	V		124.3 ± 3.8	390	TE	[1994PIA/FER, 2006UMN/KWE]
	V		139.2 ± 4.4	298	TE	[1994PIA/FER, 2006UMN/KWE]
$C_{15}H_{32}O_2S$	[18023-86-4]	3-(dodecylthio)-1,2-propanediol				
	TRS		18.1	299		
	FUS		20.3	325.5	DSC	[1993ACR, 1990VAN/VAN]
$C_{15}H_{32}O_3$	[1561-07-5]	3-(dodecyloxy)-1,2-propanediol				
	FUS		51.4	323	DSC	[1993ACR, 1990VAN/VAN]
$C_{15}H_{32}O_4$	[4161-34-6]	5,5′-[1,5-pentanediylbis(oxy)]bis-1-pentanol				
	FUS		35.66	302.7	DSC	[1991BED/BOO]
$C_{15}H_{32}O_5$		Tetrapropylene glycol monoisopropyl ether				
	V	(389-566)	71.5	404	A	[1987STE/MAL, 1947STU]
$C_{15}H_{32}O_5S_2$		(*L*)-arabinose dipentyl dithioacetal				
	FUS		37.3	368	DSC	[1989VAN/VAN]
$C_{15}H_{32}S$	[25276-70-4]	1-pentadecanethiol				
	V	(459–629)	69.8	474		[1999DYK/SVO]
$C_{15}H_{33}N$	[2570-26-5]	1-aminopentadecane				
	V	(400–594)	71.2	415	A,E	[1987STE/MAL, 1956MAN2]
$C_{15}H_{33}NO_2$	[821-91-0]	3-(dodecylamino)-1,2-propanediol				
	FUS		62.1	351.9	DSC	[1993ACR, 1990VAN/VAN]
$C_{15}H_{33}O_4$ P	[2528-38-3]	Tripentyl phosphate				
	V	(443–473)	92.3	298	CGC	[2007PAN/ANT2]
	V	(443–483)	90.7	298	CGC	[2007PAN/ANT2]
$C_{15}H_{33}O_4P$	[919-62-0]	Triisopentyl phosphate				
	V	(453–493)	86.6	298	CGC	[2007PAN/ANT2]
	V	(483–513)	86.5	298	CGC	[2007PAN/ANT2]
$C_{15}H_{33}O_4P$	[646521-37-1]	Tri-*sec*-pentyl phosphate				
	V	(463–493)	80.7	298	CGC	[2007PAN/ANT2]
	V	(453–493)	81.5	298	CGC	[2007PAN/ANT2]
$C_{15}H_{33}O_4P$	[45241-53-0]	Tri-(2-methylbutyl) phosphate				
	V	(463–493)	86.1	298	CGC	[2007PAN/ANT2]
	V	(493–523)	86.7	298	CGC	[2007PAN/ANT2]
$C_{16}F_{34}$	[355-49-7]	*n*-perfluorohexadecane				
	FUS		38.7	399.7	DSC	[2012HAS/DRA]
	FUS		37	401.8	DSC	[1999VIS/TER]
	TRS		3.2	174.6		
	TRS		1.5	183.9		
	FUS		37.3	400.0	DSC	[1994JIN/BOL]
	TRS	(5–320)	0.87	175.5		
	TRS	(5–320)	1.88	177.3		
	TRS	(5–320)	1.16	186.9	AC	[1994LEB/BYK]
	TRS	(5–320)	0.87	175.5		
	TRS	(5–320)	1.88	177.3	AC	[1993LEB/BYK]
	TRS		1.13	176.5		
	TRS		3.01	177.7		
	TRS		1.89	186.7		
	FUS		U 61.09	402.2	DSC	[1986STA]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(288–303)	104.6	295	ME	[1951BRA/WAG, 1987STE/MAL]
	V		88.4 ± 1.4	298	CGC	[2012HAS/DRA]
$C_{16}H_6Br_4N_2O_2$	[2475-31-2]	5,7-dibromo-2-(5,7-dibromo-1,3-dihydro-3-oxo-2*H*-indol-2-ylidene)-1,2-dihydro-3*H*-indol-3-one (C.I. Vat Blue 5)				
	SUB	(519–634)	129	577	GS	[1986NIS/AND]
$C_{16}H_6O_7$	[1823-59-2]	4,4′-oxydiphthalic anhydride				
	FUS		35.77	501.75	DSC	[2015LI/WAN]
$C_{16}H_9Br$	[1714-29-0]	1-bromopyrene				
	SUB	(321–368)	99.2 ± 4.4		ME	[2008GOL/SUU2]
$C_{16}H_9BrN_2O_2$	[6492-73-5]	5-bromo-2-(1,3-dihydro-3-oxo-2*H*-indol-2-ylidene)-1,2-dihydro-3*H*-indol-3-one(C.I. Vat Blue 3)				
	SUB	(519–634)	57.0	577	GS	[1986NIS/AND]
$C_{16}H_9Cl$	[34244-14-9]	1-chloropyrene				
	FUS		11.6	393.3	DSC	[2012FU/SUU]
	SUB	(333–384)	103.2 ± 2.9	358	ME	[2012FU/SUU]
$C_{16}H_9F_{25}$	[89109-69-3]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorohexadecane				
	TRS		0.7	147		
	TRS		1.4	314		
	FUS		21.0	349	DSC	[1991HOP/MOL, 1988HOP/PUG]
	TRS		1.4	312.2		
	FUS		20.9	349.2	DSC	[1986RUS/RAB]
$C_{16}H_9NO_2$	[5522-43-0]	1-nitropyrene				
	FUS		18.9	425.9	DSC	[2010KES/AUC]
	SUB	(379–408)	125.2 ± 3.8		ME	[2008GOL/SUU]
$C_{16}H_9NO_2$	[892-21-7]	3-nitrofluoranthene				
	FUS		22.6	435.0	DSC	[2010KES/AUC]
$C_{16}H_{10}$	[206-44-0]	Fluoranthene				
	FUS		19.4	382.5	DSC	[2012MON/NOT]
	FUS		18.2	382.5	DSC	[2011RIC/FU]
	FUS		18.87	381.0	DSC	[1973CAS/VEC]
	FUS	(5–450)	18.74	383.4	AC	[1996DOM/HEA, 1971WON/WES]
	SUB	(297–374)	105.7 ± 1.6	336	GS	[2014ABO/MOK]
	SUB	(297–374)	107.0 ± 3.4	298	GS	[2014ABO/MOK]
	SUB	(349–375)	99.8 ± 0.3	362	ME	[2012MON/NOT]
	SUB	(349–375)	101.5 ± 0.3	298	ME	[2012MON/NOT]
	SUB		96.3 ± 0.9	298	C	[2012MON/NOT]
	SUB	(308–338)	94.2 ± 0.9		ME	[2011RIC/FU]
	SUB	(327–359)	96.9 ± 2.8	343	ME	[2008GOL/SUU3]
	SUB	(313–453)	98.3	383	GS	[1995NAS/LEN]
	SUB	(283–323)	84.6 ± 0.9	303	GS	[1983SON/ZOL]
	SUB		99.2 ± 0.8	298	C	[1972MOR, 1977PED/RYL]
	SUB	(328–353)	102.1 ± 2	340	ME	[1965BOY/CHR, 1970COX/PIL]
	SUB	(298–358)	102.6	328		[1958HOY/PEP]
	V	(384–433)	75.8 ± 1.8	408	GS	[2014ABO/MOK]
	V	(384–433)	81.0 ± 2.1	298	GS	[2014ABO/MOK]
	V	(355–404)	79.7 ± 0.1	380	ME	[2012MON/NOT]
	V	(355–404)	88.4 ± 0.1	298	ME	[2012MON/NOT]
	V	(423–493)	86.8 ± 1.3	298	GC	[2005RIB/GOM]
	V	(323–473)	79.3	398	GC	[2002LEI/CHA]
	V	(343–453)	77.4	398	GC	[1990HIN/BID2]
	V	(503–658)	62.2	518	A	[1987STE/MAL, 1955TSY/YA]
$C_{16}H_{10}$	[129-00-0]	Pyrene				
	FUS		17.4	423.9	DSC	[2015SAN/OLI]
	FUS		16.18	424	DSC	[2010RIC/FU, 2011RIC/FU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		17.4	422.2	DSC	[2004GUP/SIN]
	FUS	(403–433)	16.7	422.4	DSC	[2003ROJ/ORO]
	FUS		17.28	425.4	DSC	[1980KRA/PIG]
	FUS		15.3		DSC	[1972WAU/GET]
	TRS		0.29	120.8		
	FUS	(5–479)	17.36	423.8	AC	[1996DOM/HEA, 1971WON/WES]
	SUB	(345–369)	98.3 ± 0.6	356	ME	[2015SAN/OLI]
	SUB	(345–369)	100.1 ± 0.6	298	ME	[2015SAN/OLI]
	SUB	(333–375)	97.1 ± 1.2		ME	[2011RIC/FU]
	SUB	(324–359)	93.1	341	ME	[2010FU/RIC]
	SUB	(315–378)	97.1	346	ME	[2010RIC/FU]
	SUB	(341–418)	103.3 ± 2.1	380	ME	[2009SID/SID]
	SUB	(341–418)	104.5	298	ME	[2009SID/SID]
	SUB	(322–381)	97.8 ± 3.3	352	ME	[2008GOL/SUU3]
	SUB		98.5 ± 1.0	298	DSC	[2003ROJ/ORO]
	SUB	(308–398)	103.1 ± 6.5	353	ME	[1998OJA/SUU]
	SUB	(313–453)	97.9	383	GS	[1995NAS/LEN]
	SUB	(369–383)	100.3 ± 0.3	353	PG	[1988SAS/JOS]
	SUB	(283–323)	91.2 ± 0.5	303	GS	[1983SON/ZOL]
	SUB	(398–423)	100.2 ± 0.4	410	IPM	[1980SMI/STE]
	SUB		101.0 ± 0.5		C	[1974MAL/BAR]
	SUB	(348–419)	100.8 ± 1.5		ME	[1974MAL/BAR]
	SUB		95.7		ME	[1953BRA/CLE2, 1977PED/RYL, 1970COX/PIL]
	SUB	(298–363)	100.5	330	ME	[1958HOY/PEP]
	SUB	(345–358)	100.1 ± 1.7	351	ME	[1952INO/SHI]
	V		92.4 ± 1.1	298	CGC	[2008HAN/NUT]
	V	(423–493)	87.2 ± 1.3	298	GC	[2006TEO/BAR]
	V		66.1	443	DSC	[2003ROJ/ORO]
	V	(343–453)	78.6	398	GC	[1990HIN/BID2]
	V	(413–467)	76	428		[1988SAS/JOS]
	V	(398–458)	76.4	440	IPM	[1980SMI/STE]
	V	(513–668)	73	528	A	[1987STE/MAL, 1955TSY/YA]
$C_{16}H_{10}ClN_3O$	[191978-95-7]	1-[(2-chloro-3-pyridinyl)carbonyl]-1,2-dihydro-2-quinolinecarbonitrile				
	FUS		50.89	489.8	DSC	[2005LIZ/ZAB]
$C_{16}H_{10}N_2O_2$	[482-89-3]	2-(1,3-dihydro-3-oxo-2*H*-indol-2-ylidene)-1,2-dihydro-3*H*-indol-3-one (C.I. Vat Blue 1)				
	SUB	(519–634)	136	577	GS	[1986NIS/AND]
	SUB		148.2	298		[1986NIS/AND, 2014MIR/CHI]
$C_{16}H_{10}O$	[5315-79-7]	1-hydroxypyrene				
	SUB	(369–394)	129.0 ± 3.2	382	ME	[1998OJA/SUU]
$C_{16}H_{10}O$	[243-24-3]	2,3,5,6-dibenzoxalene (benz[*b*]indeno[1,2-*e*]pyran)				
	SUB	(375–388)	125.9	381.5	A	[1987STE/MAL]
	SUB		129.4 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
$C_{16}H_{10}O$	[955-83-9]	2,5-diphenylfuran				
	SUB		102	340	HSA	[1989SCH/PEN]
$C_{16}H_{10}O$	[205-39-0]	Benzo[*b*]naphtho[1,2*d*]furan				
	FUS		13.7	315.9	DSC	[2010KES/AUC]
$C_{16}H_{10}O$	[239-30-5]	Benzo[*b*]naphtho[2,l*d*]furan				
	FUS		20.9	373.7	DSC	[2010KES/AUC]
$C_{16}H_{10}S$	[239-35-0]	1,2-benzodiphenylene sulfide				
	SUB	(325–373)	111.9 ± 1.2	349	ME	[1998OJA/SUU]
$C_{16}H_{10}S$	[205-43-6]	Dibenzo [*b*]naphtho[1,2*d*]thiopnene				
	FUS		19.0	375.5	DSC	[2010KES/AUC]
$C_{16}H_{10}S_4$	[5632-29-1]	2,2′,5′,2″,5″,2‴-quaterthiophene				
	SUB	(383–413)	132.6		ME	[1998KLO/LAU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(428–457)	145.6		ME	[1998KLO/LAU]
$C_{16}H_{11}F_3O$	[172424-69-0]	4-ethoxy-2′,3′,4′-trifluorodiphenylacetylene				
	FUS		32.2	356.8	DSC	[1995HSU/TSA]
$C_{16}H_{11}N$	[13055-58-8]	5-cyano-5*H*-dibenzo[*a*,*d*]cycloheptene				
	FUS		13.9	374.2	DSC	[2011PER/CON]
$C_{16}H_{11}N_3O$	[191978-94-6]	1-[(3-pyridinyl)carbonyl]-1,2-dihydro-2-quinolinecarbonitrile				
	FUS		31.01	412.5	DSC	[2005LIZ/ZAB]
$C_{16}H_{12}$	[6572-60-7]	[2.2]-paracyclophane-1,9-diene				
	FUS		30.71	505.9	DSC	[2003DEM/KOZ]
	SUB	(318–343)	92.0 ± 1.2	331	GS	[2003DEM/KOZ]
	SUB	(318–343)	93.1 ± 1.2	298	GS	[2003DEM/KOZ]
$C_{16}H_{12}$	[605-02-7]	1-phenylnaphthalene				
	FUS	(5–442)	15.55	297.5	AC	[2014CHI/STE]
	SUB	(313–453)	88.6	383	GS	[1995NAS/LEN]
[Note: The authors of [1995NAS/LEN] label the value as an enthalpy of sublimation.]						
	V	(375–630)	75.1 ± 0.3	380	IPM,EB	[2014CHI/STE]
	V	(375–630)	71.8 ± 0.3	420	IPM,EB	[2014CHI/STE]
	V	(375–630)	68.6 ± 0.3	460	IPM,EB	[2014CHI/STE]
	V	(375–630)	65.4 ± 0.3	500	IPM,EB	[2014CHI/STE]
	V	(375–630)	62.2 ± 0.3	540	IPM,EB	[2014CHI/STE]
	V	(375–630)	58.8 ± 0.5	580	IPM,EB	[2014CHI/STE]
	V	(375–630)	55.2 ± 0.8	620	IPM,EB	[2014CHI/STE]
	V		81.1 ± 1.8	298	C	[2008ROU/LIM]
$C_{16}H_{12}$	[612-94-2]	2-phenylnaphthalene				
	FUS	(5–442)	22.62	374.8	AC	[2014CHI/STE]
	FUS		17.9	373.5	DSC	[2008ROU/LIM]
	SUB	(333–353)	106.6 ± 0.4	343	ME	[2008ROU/LIM]
	SUB	(333–353)	107.6 ± 0.6	298	ME	[2008ROU/LIM]
	V	(483–604)	69.3 ± 0.3	500	EB	[2014CHI/STE]
	V	(483–604)	66.2 ± 0.3	540	EB	[2014CHI/STE]
	V	(483–604)	63.0 ± 0.4	580	EB	[2014CHI/STE]
$C_{16}H_{12}ClN_5$	[142740-67-8]	2-benzoylpyridine 6′-chloro-3′-pyridazinylhydrazone				
	FUS		35	440.3	DSC	[2013PER/KAZ]
$C_{16}H_{12}ClN_5$	[907968-02-9]	2-benzoylpyridine 6′-chloro-4′-pyrimidinylhydrazone				
	FUS		34	456.3	DSC	[2013PER/KAZ]
$C_{16}H_{12}Cl_2N_2O_2S$	[20098-72-0]	*N*,*N*′-bis(4-chlorobenzoyl)carbamimidothioic acid, methyl ester				
	FUS		14.14	455.3	DSC	[2009PLA/LIZ]
$C_{16}H_{12}F_2$	[145698-42-6]	4-ethyl-3′,4′-difluorodiphenylacetylene				
	FUS		16.6	301.2	DSC	[1995HSU/TSA]
$C_{16}H_{12}F_2O$	[172424-66-7]	4-ethoxy-2′,4′-difluorodiphenylacetylene				
	FUS		27.0	343.4	DSC	[1995HSU/TSA]
$C_{16}H_{12}N_2$	[6672-73-7]	5-cyano-7*H*-dibenzo[*a*,*c*]cyclohepten-6-amine				
	FUS		14.86	374.1	DSC	[2013PER/CON]
$C_{16}H_{12}N_2O$	[842-07-9]	2-hydroxy-l-phenylazonaphthalene				
	SUB	(350–374)	116.7 ± 5.4	362		[1984KRI]
$C_{16}H_{12}N_2O_3$	[19803-53-3]	(3-methyl-2-quinoxalinyl)phenylmethanone *N*,*N*′-dioxide				
	SUB		153.8 ± 1.8	298	C	[2007GOM/SOU]
$C_{16}H_{12}O_2$	[134852-10-1]	5-hydroxymethylene-5*H*-6,7-dihydrodibenzo[*a*,*c*]-cyclohepten-6-one				
	FUS		16.9	357.7	DSC	[2006PER/CON]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		116.1 ± 12.1	298	CGC	[2006PER/CON]
$C_{16}H_{12}S_2$	[16212-85-4]	3,6-diphenyl-1,2-dithiin				
	SUB		174.5 ± 2.5	355		[1973GEI/SAW, 1977PED/RYL]
	SUB		183.1 ± 2.5	298		[1973GEI/SAW, 1977PED/RYL]
$C_{16}H_{12}S_2$	[92802-27-2]	2,6-diphenyl-1,4-dithiin				
	FUS (I)		20.9	336.6		
	FUS (II)		24.6	350.7	DSC	[2004PIA/SUG]
$C_{16}H_{13}$ CIN_2O	[439-14-5]	7-chloro-1,3-dihydro-1-methyl-5-phenyl-2*H*-1,4-benzodiazepin-2-one (diazepam)				
	FUS		26.12	404.1	DSC	[2016AMA/DEG]
	FUS		24.7	404.8	DSC	[2006WAS/HOL]
	FUS		25.49	403.6	DSC	[2001VER/AUG]
$C_{16}H_{13}$ CIN_2O_2	[846-50-4]	7-chloro-1,3-dihydro-3-hydroxy-l-methyl-5-phenyl-2*H*-l ,4-benzodiazepin-2-one (temazepam)				
	FUS (I)		27.97	433.9	DSC	[2011JET/BHO]
	FUS (II)		26.46	432.5	DSC	[2011JET/BHO]
	FUS (III)		20.75	411.7	DSC	[2011JET/BHO]
	FUS		27.4	432.6		[1998VAN/AUG]
	FUS		25.58	432.5	DSC	[1992RIC/MCC]
$C_{16}H_{13}C_2NO_4$	[89796-99-6]	2-[2-[2-[(2,6-dichlorophenyl)amino]phenyl]acetyl]oxyacetic acid (aceclofenac)				
	FUS		42.25	426	DSC	[2010BAI/VAN]
$C_{16}H_{13}FO$	[127727-79-1]	4-ethoxy-4′-fluorodiphenylacetylene				
	FUS		22.8	354.4		[1995HSU/TSA]
$C_{16}H_{13}N$	[90-30-2]	*N*-phenyl-1-naphthylamine				
	SUB	(313–333)	96.5	323	GS	[1987STE/MAL, 1971FEL/KUZ]
	V	(338–368)	89.6	353	A	[1987STE/MAL]
$C_{16}H_{13}N$	[135-88-6]	*N*-phenyl-2-naphthylamine				
	SUB	(333–363)	115.8	348	GS	[1987STE/MAL, 1971FEL/KUZ]
	V	(383–520)	88.7	398	A	[1987STE/MAL]
$C_{16}H_{13}NO$	[37170-96-0]	9-acetamidoanthracene				
	SUB	(446–500)	134.8	461	RG	[1958KLO, 1987STE/MAL]
$C_{16}H_{13}NO$	[93-45-8]	*N*-(4-hydroxyphenyl)-2-naphthylamine				
	SUB	(373–408)	126.8	390	GS	[1971FEL/KUZ]
$C_{16}H_{13}NO_2$	[5960-55-4]	1-(dimethylamino)-9,10-anthraquinone				
	SUB	(396–408)	U 3.6	402	A	[1987STE/MAL]
$C_{16}H_{13}NO_2$	[4465-58-1]	1-(2-hydroxyethylamino)-9,10-anthraquinone				
	SUB	(403–417)	152.7	410	ME	[1960BRA/BIR, 1966JON/KRA]
$C_{16}H_{13}NO_3$	[483362-77-2]	1-[(4-nitrophenyl)ethynyl]-4-ethoxybenzene				
	FUS		26.02	388.1	DSC	[2002SPA/DZI]
$C_{16}H_{13}NO_5$	[17869-07-7]	1-amino-2-hydroxyethoxy-4-hydroxy-9,10-anthraquinone				
	SUB		135.2			[1984KAR/KRU]
$C_{16}H_{13}NO_7$	[175033-36-0]	2-acetoxybenzoic acid, 3′-(nitrooxymethyl)phenyl ester				
	FUS (I)		33.79	335.2		
	FUS (II)		26.83	328.5	DSC	[2004FOP/SAN]
$C_{16}H_{13}N_3O_2$	[929692-89-7]	2-phenylcarbamoyl-3-methylquinoxaline *N*-oxide				
	SUB		145.1 ± 2.3	298	C	[2012VIV/FRE]
$C_{16}H_{13}N_3O_2$	[31983-89-8]	3-methyl-*N*-phenyl-2-quinoxalinecarboxamide-1,4-dioxide				
	SUB		145.1 ± 5.6	298	ME	[2007GOM/SOU2]
$C_{16}H_{13}N_3O_3$	[31431-39-7]	methyl (5-benzoyl-1*H*-benzimidazol-2-yl)carbamate (mebendazole)				
	FUS		71.43	518.2	DSC	[2015GAU/VAN]
$C_{16}H_{14}$	[781-17-9]	4,5,9,10-tetrahydropyrene				
	TRS		1.85	319.9		

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		0.13	385.1		
	FUS		17.09	412.8	AC,DSC	[1993CHI/KNI2]
	SUB	(385–410)	90.4	400	IP	[1993CHI/KNI2]
	V		70.9	440	EB,IPM	[1993CHI/KNI2]
	V		68.1	480	EB,IPM	[1993CHI/KNI2]
	V		65.3	520	EB,IPM	[1993CHI/KNI2]
	V		62.5	560	EB,IPM	[1993CHI/KNI2]
	V		59.5	600	EB,IPM	[1993CHI/KNI2]
	V		56.4	640	EB,IPM	[1993CHI/KNI2]
$C_{16}H_{14}$	[20279-21-4]	1,2,3,10*b*-tetrahydrofluoranthene				
	V	(400–469)	68.0	415	A	[1987STE/MAL]
$C_{16}H_{14}$	[781-43-1]	9,10-dimethylanthracene				
	SUB	(363–378)	109.4 ± 1.7	371	ME	[2006RIB/AMA2]
	SUB	(363–378)	113.0 ± 1.7	298	ME	[2006RIB/AMA2]
	SUB	(372–382)	114.6	377	A	[1987STE/MAL]
	SUB		110.6 ± 1.5			[1985KIS/VEI]
	SUB	(381–434)	103.2	396	RG	[1958KLO, 1987STE/MAL]
	V		94.5 ± 0.2	298	CGC	[2008HAN/NUT]
$C_{16}H_{14}$	[52251-71-5]	2-ethylanthracene				
	SUB	(343–359)	104.9 ± 0.6	351	ME	[2006RIB/AMA2]
	SUB	(343–359)	107.6 ± 0.6	298	ME	[2006RIB/AMA2]
	V		91.4 ± 1.1	298	CGC	[2008HAN/NUT]
$C_{16}H_{14}$	[1576-69-8]	2,7-dimethylphenanthrene				
	SUB		106.7 ± 0.8		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{16}H_{14}$	[3674-69-9]	4,5-dimethylphenanthrene				
	SUB	(313–453)	85.7	383	GS	[1995NAS/LEN]
	SUB		104.6 ± 1.3		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{16}H_{14}$	[604-83-1]	9,10-dimethylphenanthrene				
	SUB		119.5 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
$C_{16}H_{14}$	[886-65-7]	1,4-diphenyl-1,3-butadiene				
	SUB		87.0		RG	[1958KLO]
$C_{16}H_{14}$	[31297-12-8]	[2.2]-paracyclophane-1-ene				
	FUS		17.61	469.9	DSC	[2003DEM/KOZ]
	SUB	(318–343)	93.3 ± 1.1	331	GS	[2003DEM/KOZ]
	SUB	(318–343)	94.4 ± 1.1	298	GS	[2003DEM/KOZ]
$C_{16}H_{14}Cl_2O_2$	[4359-34-6]	1,1-dichloro-2,2-bis(4-methoxyphenyl)ethylene				
	SUB		79.2			[1995RUL/RAK, 1989LUB/JAN]
$C_{16}H_{14}Cl_2O_3$	[510-15-6]	Ethyl 2-hydroxy-2,2-bis(4-chlorophenyl)acetate (chlorobenzilate)				
	FUS		23.48	310.4	DSC	[1991ACR, 1990DON/DRE]
$C_{16}H_{14}Cl_2O_3$	[51338-27-3]	Methyl 2-(4-(2,4-dichlorophenoxy)phenoxy)propionate				
	FUS		27.08	314.4	DSC	[1990DON/DRE]
$C_{16}H_{14}F_4N_4O_2$	[80135-84-8]	*N*-methyl-*N*-(2,2,3,3-tetrafluoropropyl)-4-[(4-nitrophenyl)azo]benzenamine				
	SUB		100.8		UV	[1984KAR/ROD]
$C_{16}H_{14}N_2$	[19311-79-6]	1-methyl-3,5-diphenylpyrazole				
	FUS	(70–370)	17.46	332.9	AC	[2001DI/SUN]
$C_{16}H_{14}N_2OS$	[688319-93-9]	*N*-(4-acetylphenyl)-4*H*-3,1-benzothiazin-2-amine				
	FUS		16.1	436.2	DSC	[2004GON/KOS]
$C_{16}H_{14}N_2O_2$	[2475-44-7]	1,4-bis(*N*-methylamino)anthra-9,10-quinone				
	SUB	(385–413)	151.8 ± 3.9	399		[1984KRI]
	SUB		150.2		GS	[1967DAT/KAN, 1991HOR]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{14}N_2O_2$	[65990-96-7]	2-methyl-3-(phenylmethyl)quinoxaline-1,4-dioxide				
	SUB		146.6 ± 3.2	298	C	[2004RIB/GOM2]
$C_{16}H_{14}N_2O_2S$	[19921-98-3]	*N*,*N*′-dibenzoylcarbamimidothioic acid, methyl ester				
	FUS		10.00	422.2	DSC	[2009PLA/LIZ]
$C_{16}H_{14}N_2O_3S$	[181695-72-7]	4-(5-methyl-3-phenyl-4-isoxazolyl)benzenesulfonamide (valdecoxib)				
	FUS		30.35	446.4	DSC	[2004AMB/MAH]
$C_{16}H_{14}N_4$	[70845-34-0]	[1-(2-pyridinyl)ethylidene]hydrazone-(2-(1*H*)-quinolinone)				
	FUS		31	416.6	DSC	[2013PER/KAZ]
$C_{16}H_{14}N_4O_2$	[340820-69-1]	4-(4-methylphenyl)-5-(2-pyridinyl)-4*H*-1,2,4-triazole-3-carboxylic acid, methyl ester				
	FUS		38.2	423.4	DSC	[2005SIK/MOD]
$C_{16}H_{14}O$	[838-15-3]	2,3:6,7-dibenzocycloocta-2,6-dien-1-one				
	FUS		17.2	366.6	DSC	[2003PER/CON]
	SUB		103.3 ± 3.2	298	V+F	[2003PER/CON]
	V		90.6 ± 2.0	298	CGC	[2003PER/CON]
$C_{16}H_{14}O$	[6374-70-5]	2,3: 7,8-dibenzocycloocta-2,7-dien-1-one				
	FUS		27.8	420	DSC	[2003PER/CON]
	SUB		112.8 ± 4.1	298	V+F	[2003PER/CON]
	V		92.0 ± 2.9	298	CGC	[2003PER/CON]
$C_{16}H_{14}O_2$	[103-41-3]	Benzyl cinnamate				
	V	(446–623)	89.4	461	A	[1987STE/MAL, 1947STU]
$C_{16}H_{14}O_2$	[495-71-6]	1,2-dibenzoylethane				
	TRS		0.22	187		
	FUS		38.99	418.6	RC	[1996DOM/HEA, 1932SPA/THO]
$C_{16}H_{14}O_2$	[2395-97-3]	9,10-dimethoxy anthracene				
	SUB		123.0 ± 2.0			[1985KIS/VEI]
$C_{16}H_{14}O_3$	[22071-15-4]	(±)α-(3-benzoylphenyl)propionic acid ((±)-ketoprofen)				
	FUS		29.65	368.2	DSC	[2015GAU/VAN]
	FUS		44.5	369.8	DSC	[2014ARD/ELN]
	FUS		28.8	365.9	DSC	[2013YAD/KUM]
	FUS		45.5	369.4	DSC	[2013DIX/KUL]
	FUS		U87.3	370	DSC	[2011TIT/FUL]
	FUS		28.31	368	DSC	[2010BAI/VAN]
	FUS		20.3	366.3	DSC	[2010YUA/CAP]
	FUS		30.83	369.2	DSC	[2010BAN/ARC]
	FUS		26.0	369.7	DSC	[2009CIR/MAE]
	FUS		21.5	366.2	DSC	[2009GAS/CEN]
	FUS		28.4		DSC	[2007BLA/SCH]
	FUS		37.3	368	DSC	[2006WAS/HOL, 2008WAS/HOL]
	FUS		27.38	367.7	DSC	[2004LU/CHI]
	FUS		25.04	369		[1998MUR/BET2, 1999MUR/FAU]
	FUS		28.23	367.4		[1995ESP/BIS]
	SUB	(341–365)	110.1 ± 0.5		GS	[2003PER/KUR2]
$C_{16}H_{14}O_3$	[22161-81-5]	(+)α-(3-benzoylphenyl)propionic acid ((+)-ketoprofen)				
	FUS		22.78	348.6	DSC	[2004LU/CHI]
$C_{16}H_{14}O_3$	[36330-85-5]	3-(4-biphenylylcarbonyl)propionic acid (fenbufen)				
	FUS		73.84	459.1	DSC	[2011DOM/POB]
	FUS		42.4	458.2	DSC	[2009GAS/CEN]
	FUS		41.1	462.9	DSC	[2008KUR/PER]
	FUS		46.2	459.3	DSC	[2006WAS/HOL]
	SUB	(378–420)	154.9 ± 0.8	298	GS	[2008KUR/PER]
$C_{16}H_{14}O_4$	[5673-22-3]	1,2-*cis*-dicarbomethoxyacenaphthene				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		37.66	398.2		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[51869-93-3]	1,2-*trans*-dicarbomethoxyacenaphthene				
	FUS		27.61	388.7		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[56137-73-6]	1,3-dicarbomethoxyacenaphthene				
	FUS		23.01	371.2		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[51870-00-9]	1,5-dicarbomethoxyacenaphthene				
	FUS		28.87	386.7		[1974CAN/JAC]
$C_{16}H_{14}O_4$	[4599-96-6]	5,6-dicarbomethoxy acenaphthene				
	FUS		34.73	450.2		[1974CAN/JAC]
$C_{16}H_{14}O_6$	[36063-02-2]	1,2,3-tricarbomethoxy naphthalene				
	FUS		23.7	362.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36063-03-3]	1,2,4-tricarbomethoxy naphthalene				
	FUS		32.1	393.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[68267-11-8]	1,2,5-tricarbomethoxy naphthalene				
	FUS		25.5	363	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36063-04-4]	1,2,6-tricarbomethoxy naphthalene				
	FUS		35.9	416.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[68267-10-7]	1,2,7-tricarbomethoxy naphthalene				
	FUS		36.1	427.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-23-0]	1,2,8-tricarbomethoxy naphthalene				
	FUS		24.8	366.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-28-5]	1,3,5-tricarbomethoxy naphthalene				
	FUS		25.9	402.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-29-6]	1,3,6-tricarbomethoxy naphthalene				
	FUS		37.4	469.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-30-9]	1,3,7-tricarbomethoxynaphthalene				
	FUS		37.2	446.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-24-1]	1,3,8-tricarbomethoxynaphthalene				
	FUS		27.7	388.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-25-2]	1,4,5-tricarbomethoxy naphthalene				
	FUS		26.5	402.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36063-05-5]	1,4,6-tricarbomethoxy naphthalene				
	FUS		30.2	409.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-26-3]	2,3,5-tricarbomethoxy naphthalene				
	FUS		41.0	401.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[36440-27-4]	2,3,6-tricarbomethoxynaphthalene				
	FUS		34.4	399.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{16}H_{14}O_6$	[520-33-2]	2,3-dihyro-5,7-dihyroxy-2-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one(hesperitin)				
	FUS		35.9	499.2	DSC	[2007CHE/HUM]
$C_{16}H_{15}BrO$	[556052-89-2]	4-bromo-4′-(3-butenyloxy)-1,1′-biphenyl				
	TRS		13.3	324.2		
	FUS		15.8	396.8	DSC	[2003WIL/VAN]
$C_{16}H_{15}ClN_2O_2$	[107503-17-3]	1-(2-ethylbenzoyl)-3-(4-chlorophenyl)urea				
	FUS		23.9	436	DSC	[2014OZA/NAK]
$C_{16}H_{15}ClN_2O_3$	[107183-08-4]	1-(2-ethoxybenzoyl)-3-(4-chlorophenyl)urea				
	FUS		27.0	420	DSC	[2014OZA/NAK]
$C_{16}H_{15}Cl_2NO_2$	[117-26-0]	1,1-bis(4-chlorophenyl)-2-nitrobutane				
	FUS		15.41	330.3	DSC	[1990DON/DRE]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{15}Cl_3O_2$	[30667-99-3]	1-methoxy-2-(2,2,2-trichloro-1-(4-methoxyphenyl)ethyl)benzene				
	FUS		22.45	347.6	DSC	[1990DON/DRE]
$C_{16}H_{15}CI_3O_2$	[72-43-5]	1,1′-(2,2,2-trichloroethylidene-bis(4-methoxy)benzene				
	FUS		27.48	360.6	DSC	[1990DON/DRE]
$C_{16}H_{15}IO_3S$	[313057-06-6]	4-(4-pentenyloxy)phenyl 5-iodo-2-thiophene carboxylate				
	FUS		68.2	332.7	DSC	[2000WU/WAN]
$C_{16}H_{15}N$	[58743-76-3]	4′-propylbiphenyl-4-carbonitrile				
	FUS	(12–383)	22.7	338.8	AC	[1996DOM/HEA, 1991ASA/SOR]
	FUS (I)		19.9	338.4		
	FUS (II)		16.7	326.3	DSC	[1983HAA/PAU]
$C_{16}H_{15}N$	[13228-39-2]	1-ethyl-2-phenylindole				
	SUB	(327–349)	113.4 ± 0.6	338	ME	[2015CAR/AMA]
	SUB	(327–349)	115.0 ± 0.6	298	ME	[2015CAR/AMA]
$C_{16}H_{15}NO$	[18594-93-9]	3-anilino-1-phenylbut-2-enone				
	SUB		126.8 ± 3.0	298	C	[1993RIB/RIB]
$C_{16}H_{15}NO_4$	[483362-66-9]	2-(4-nitrophenyl)-1-(4-ethoxyphenyl)ethanone				
	FUS		28.2	390.3	DSC	[2002SPA/DZI]
$C_{16}H_{15}N_5$	[120356-36-7]	[1-(2-pyridinyl)propylidene]hydrazone-(1-(2*H*)phthalazinone)				
	FUS		34	415.0	DSC	[2013PER/KAZ]
$C_{16}H_{15}N_5O_3$	[157892-00-7]	6-phenyl-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-*a*]pyrine				
	FUS		63.78	485.8	DSC	[1999ZIE/GOL]
$C_{16}H_{16}$	[1732-13-4]	1,2,3,6,7,8-hexahydropyrene				
	TRS		5.02	377		
	FUS		18.09	407.7	AC,DSC	[1993CHI/KNI2]
	SUB	(390–405)	92.3	398	IP	[1993CHI/KNI2]
	V		72.0	440	EB,IPM	[1993CHI/KNI2]
	V		69.4	480	EB,IPM	[1993CHI/KNI2]
	V		66.8	520	EB,IPM	[1993CHI/KNI2]
	V		64.2	560	EB,IPM	[1993CHI/KNI2]
	V		61.5	600	EB,IPM	[1993CHI/KNI2]
$C_{16}H_{16}$	[1633-22-3]	Tricyclo[8.2.2.2^{4,7}]hexadeca-4,6,10,12,13,15-hexaene ([2.2]-*para*-cyclophane)				
	FUS	(10–350)	0.21	323.2	AC	[1970AND/WES]
	SUB	(353–409)	96.4 ± 1.5		TSGC	[1980NIS/SAK]
	SUB		96.3 ± 4.2			[1973ROD/WES, 1977PED/RYL]
	SUB	(343–383)	92.9 ± 0.8	363	ME	[1966BOY, 1987STE/MAL, 1970COX/PIL]
$C_{16}H_{16}$	[2319-97-3]	Tricyclo[9.3.1.1^{4,8}]hexadeca-1(15),4,6,8(16),11,13-hexaene ([2.2]-*meta*-cyclophane)				
	FUS		21.42	404	DSC	[1969SHI/MCN]
	SUB	(308–332)	91.6 ± 1.7	320	ME	[1969SHI/MCN, 1977PED/RYL, 1987STE/MAL]
	SUB		92.0 ± 2.0	298	ME	[1969SHI/MCN, 1977PED/RYL]
$C_{16}H_{16}$	[5385-36-4]	Tricyclo[9.2.2.1^{4,8}]hexadeca-4,6,8(16),11,13,14-hexaene ([2.2]-*meta*-*para*-cyclophane)				
	TRS		0.98	315		
	FUS		12.76	354	DSC	[1969SHI/MCN]
	SUB	(311–328)	86.6	319	ME	[1969SHI/MCN, 1977PED/RYL, 1987STE/MAL]
	SUB		87.5 ± 0.9	298	ME	[1969SHI/MCN, 1977PED/RYL]
$C_{16}H_{16}$	[2919-20-2]	1,1-bis(4-methylphenyl)ethene				
	FUS		23.31	334.1		[1999VER6]
	SUB	(309–332)	100.3 ± 1.4	320	GS	[1999VER6]
	SUB	(309–332)	101.0 ± 1.4	298	GS	[1999VER6]
$C_{16}H_{16}ClN$	[113788-75-3]	4-chlorobenzylidene-4′-propylaniline				
	FUS		24.61	343.7	DSC	[1999GAL/COL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{16}ClN_3O_3S$	[26807-65-8]	3-(aminosulfonyl)-4-chloro-*N*-(2,3-dihydro-2-methyl-1*H*-indol-1-yl)-benzamide (indapamide)				
	FUS		26.7	441.0	DSC	[2015NUR/BOO]
	FUS		57.18	462.2	DSC	[2010GHU/DON]
$C_{16}H_{16}N_2O_2$	[94-93-9]	*N*,*N*′-bis(salicylaldehydo)ethylenediimine				
	FUS		34.09	397.9	DSC	[2004RIB/GON]
	SUB	(348–363)	141.3 ± 3.2	298	ME	[2004RIB/GON]
$C_{16}H_{16}N_2O_2$	[2299-73-2]	2-[(4-methoxyphenyl)methylene]hydrazone-4-methoxybenzaldehyde (anisaldazine)				
	FUS		29.75	442	DSC	[1996DOM/HEA, 1967BAR/POR]
$C_{16}H_{16}N_2O_4$	[13684-56-5]	Ethyl [3-[[(phenylamino)carbonyl]oxy]phenylcarbamate]				
	FUS		32.75	394.1	DSC	[1990DON/DRE]
$C_{16}H_{16}N_2O_3S$	[144060-53-7]	2-(3-cyano-4-isobutoxyphenyl)-4-methyl-1,3-thiazole-5-carboxylic acid (febuxostat)				
	FUS (I)		27.59	486.5		
	FUS (II)		32.37	481.5		
	FUS (III)		31.04	477.0	DSC	[2015PAT/JAG]
	FUS		34.8	383.3	DSC	[2015PAN/MEH]
$C_{16}H_{16}N_2O_4$	[13684-63-4]	Methyl 3-*m*-tolylcarbamoyloxyphenylcarbamate				
	FUS		39.62	423.8	DSC	[1990DON/DRE]
$C_{16}H_{16}N_2O_4$	[54946-22-4]	*N*-propylthalidomide				
	FUS		27.28	409.2	DSC	[2002GOO/LAI]
$C_{16}H_{16}O$	[130935-82-9]	6-hydroxymethyl-5,6-dihydro-7*H*-dibenzo[*a*,*c*]cycloheptane				
	FUS		25.9	405.7	DSC	[2005PER/BAN]
$C_{16}H_{16}O$	[29817-04-7]	5-hydroxymethyl-5,6-dihydro-7*H*-dibenzo[*a*,*c*]cycloheptane				
	FUS		16	352.5	DSC	[2005PER/BAN]
$C_{16}H_{16}O_2$	[29783-24-2]	*trans*-9,10-bishydroxymethyl-9,10-dihydrophenanthrene				
	FUS		30.3	450.8	DSC	[2005PER/BAN]
$C_{16}H_{16}O_2$	[29790-58-7]	*trans*-5-hydroxymethyl-5,6-dihydro-7*H*-dibenzo[*a*,*c*]cycloheptan-6-ol				
	FUS		31.8	460.2	DSC	[2005PER/BAN]
$C_{16}H_{16}O_2$		(*d*)-2-(*p*-methoxyphenyl)propiophenone				
	FUS		21.76	326	DSC	[1976LEC/COL]
$C_{16}H_{16}O_2$		(*dl*)-2-(*p*-methoxyphenyl)propiophenone				
	FUS		26.36	353	DSC	[1976LEC/COL]
$C_{16}H_{16}O_2$	[46863-20-1]	(2-hydroxyphenyl)-2,4,6-trimethylphenylmethanone				
	FUS		0.49	353.2	DTA	[1989SAL/ABA]
[Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent.]						
$C_{16}H_{16}O_3$	[24650-42-8]	2,2-dimethoxy-1,2-diphenylethanone				
	FUS		20.86	338.5	DSC	[1994SAN/DEF]
$C_{16}H_{16}O_3$	[7074-00-2]	2-phenylisopropoxybenzoate				
	SUB	(293–313)	43.1 ± 4.2	303	ME	[1971KIP/RAB, 1977PED/RYL]
$C_{16}H_{16}O_{10}$	[3327-06-8]	Pentamethoxycarbonylbenzene				
	FUS		38.0	424.7	DSC	[1978DOZ/FUJ]
	SUB	(389–413)	160.0 ± 0.8	401	ME	[1995JIM/MEN]
	SUB	(389–413)	165.1 ± 0.8	298	ME	[1995JIM/MEN]
	SUB		165.1 ± 0.8	298		[1967TUR2, 1995JIM/MEN]
$C_{16}H_{17}ClN_4O_3$	[3180-81-2]	4-(*N*-ethyl-*N*-2-hydroxyethylamino)-4′-nitro-2′-chloroazobenzene				
	SUB		142.7			[1968TSU/KOJ, 1988BAU/PER]
$C_{16}H_{17}ClN_4O_4$	[4540-00-5]	2,2′-[[3-chloro-4-[(4-nitrophenyl)azo]phenyl]imino]bis-ethanol				
	FUS		29.78	463.2		[1988BAU/PER]
$C_{16}H_{17}Cl_2N_5O_4$		1-[[2-chloro-4-[(2-chloro-4-nitrophenyl)azo]-5-(methylamino)phenyl]amino]-2-propanol *N*-oxide				
	FUS		30.62	371.2		[1991BAU/WEB]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{17}F$	[193472-70-7]	2-fluoro-2-methyl-1,3-diphenylpropane				
	FUS		29.7	332.7		[1997SCH/VER]
	SUB		102.2 ± 1.1	298		[1997SCH/VER]
$C_{16}H_{17}F_{15}O$	[41049-15-4]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7-pentadecafluoro-8-hexadecanone				
	FUS		34.2	285.8	DSC	[1992VIL/WEI]
$C_{16}H_{17}N$	[1484-08-8]	*N*-butylcarbazole				
	FUS		22.80	330.6	DSC	[2016STA/KEI]
	V	(331–373)	92.5 ± 0.6	298	GS	[2015EME/VAR]
$C_{16}H_{17}NO$	[36713-33-4]	1,2-diphenyl-2-*N*,*N*-dimethylamino-1-ethanone				
	SUB		140.1 ± 1.9		B	[1994WEL/VER]
$C_{16}H_{17}NO$	[99081-88-6]	*N*-(4-isopropylphenylmethylene)benzenamine *N*-oxide				
	SUB		127.2 ± 1.7	298	C	[1986KIR/ACR]
$C_{16}H_{17}NO$	[957-51-7]	*N*,*N*-dimethyl-2,2-diphenylacetamide				
	FUS		25.43	407.1	DSC	[1991ACR, 1990DON/DRE]
$C_{16}H_{17}N_3O_3$	[850836-66-7]	6-(acetylamino)-2-cyano-1(2*H*)-quinolinecarboxylic acid, 1-methylethyl ester				
	FUS		12.66	377.4	DSC	[2005LIZ/ZAB]
$C_{16}H_{18}$	[5080-10-4]	1-(2-tolyl)-1-(4-tolyl)ethane				
	V	(298–473)	85.6	313	A	[1987STE/MAL, 1963BES]
$C_{16}H_{18}$	[719-79-9]	1,1-diphenylbutane				
	V	(298–342)	75.9 ± 0.6	320	GS	[1999VER5]
	V	(298–342)	77.2 ± 0.6	298	GS	[1999VER5]
$C_{16}H_{18}$	[1520-44-1]	(*dl*)-1,3-diphenylbutane				
	SUB	(288–303)	73.6	296	ME	[1974PRI/POU, 1987STE/MAL]
$C_{16}H_{18}$	[5789-35-5]	2,3-diphenylbutane				
	SUB	(293–348)	96.7	326		[1984BEC/RUC]
$C_{16}H_{18}$	[1634-11-3]	2-methyl-1,1-diphenylpropane				
	V	(298–338)	72.0 ± 0.5	318	GS	[1999VER5]
	V	(298–338)	73.2 ± 0.5	298	GS	[1999VER5]
$C_{16}H_{18}$	[530-45-0]	1,1-bis(4-methylphenyl)ethane				
	V	(298–338)	75.3 ± 0.6	318	GS	[1999VER5]
	V	(298–338)	76.5 ± 0.6	298	GS	[1999VER5]
$C_{16}H_{18}$	[2113-60-2]	3-*tert*-butylbiphenyl				
	V	(323–361)	77.1 ± 0.2	298	GS	[2012NAZ/NES]
	V	(486–537)	82.3 ± 0.3	298	EB	[2012NAZ/NES]
$C_{16}H_{18}$	[1625-92-9]	4-*tert*-butylbiphenyl				
	FUS	(8–372)	19.87	324.7	AC	[2010VAR/EFI]
	SUB	(301–326)	98.0 ± 1.0	298	GS	[2010VAR/EFI]
	SUB		98.1 ± 2.1	298	C	[2009MEL/PIM]
	V	(448–593)	84.0 ± 0.4	298	GS	[2012NAZ/NES]
	V	(327–378)	79.9 ± 0.8	298	GS	[2010VAR/EFI]
	V		80.0 ± 1.9	298	C	[2009MEL/PIM]
$C_{16}H_{18}Cl_4O_4$	[3015-66-5]	Dibutyl tetrachlorophthalate				
	V	(368–421)	99.7	383	A,T	[1987STE/MAL, 1949PER/WEB, 1999DYK/SVO]
$C_{16}H_{18}FN_3O_3$	[70458-96-7]	1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid (norfloxacin)				
	FUS		32.42	492.6	DSC	[2009OLI/BER]
	FUS (I)		39.1	492.2		
	FUS (II)		41.5	480.2	DSC	[2007BAR/PRO]
	FUS		32.97	500.2	DSC	[1994YU/ZIP]
$C_{16}H_{18}NO_5$	[3788-15-6]	bis(2,4-dimethoxyphenyl)nitrogen oxide				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(333–363)	144.1 ± 11.4	348	A	[1987STE/MAL, 1965KAL/ROZ]
$C_{16}H_{18}N_2O$	[2496-21-1]	4-*n*-butyl-4′-hydroxyazobenzene				
	FUS		5.25	351.6	DSC	[1990JIN/KAN]
$C_{16}H_{18}N_2OS$	[373642-48-9]	*N*-[(3-methoxyphenyl)methyl]-*N*′-(phenylmethyl)thiourea				
	FUS		21.02	345	DSC	[2002ABB/WOH]
$C_{16}H_{18}N_2O_2$	[101225-69-8]	2,2′,6,6′-tetramethylazobenzene-*N*,*N*-dioxide				
	SUB		107 ± 12	298	ME	[1993ACR/TUC2]
$C_{16}H_{18}N_2O_3$	[4792-83-0]	*p*-azoxyphenetole				
	SUB		126.2 ± 2.7	298	C	[1993ACR/TUC]
$C_{16}H_{18}N_2O_3$	[191979-22-3]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, 2-methylpropyl ester				
	FUS		24.45	346.4	DSC	[2005LIZ/ZAB]
$C_{16}H_{18}N_4O_2$	[3025-52-3]	4-(*N*,*N*-diethylamino)-4′-nitroazobenzene				
	SUB	(403–418)	156.6	411	GC	[2002SAW/SHI]
	SUB		146		GS	[1987SHI/OHK, 1991HOR]
	SUB	(422–441)	151.5 ± 4.2	431	ME	[1960BRA/BIR]
	V	(428–448)	94.8	438	GC	[2002SAW/SHI]
$C_{16}H_{18}N_4O_3$	[2872-52-8]	4-(*N*-ethyl-*N*-2-hydroxyethylamino)-4′-nitroazobenzene				
	SUB		136.8		UV	[1984KAR/ROD, 1984KAR/KRU]
	SUB		189.5			[1968TSU/KOJ, 1988BAU/PER]
	SUB	(420–433)	176.6 ± 1.3	426	ME	[1960BRA/BIR, 1966JON/KRA]
$C_{16}H_{18}N_4O_4$	[2734-52-3]	*N*,*N*-di(2-hydroxyethyl)-4-(4-mtrophenyl)azoaniline				
	FUS		32.43	484.2		[1988BAU/PER]
$C_{16}H_{18}O$	[93-96-9]	bis(α-methylbenzyl) ether				
	V	(369–554)	62.1	384	A	[1987STE/MAL, 1947STU]
$C_{16}H_{18}O_3$		Ethyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		27.1	355.5	DSC	[1994WEB/MEY]
$C_{16}H_{18}O_4$		2-hydroxyethyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		27.6	337.9	DSC	[1994WEB/MEY]
$C_{16}H_{19}BrO_2$	[164591-96-2]	4-*trans*-(4-bromophenyl)cyclohexyl (*E*)-2-butenoate				
	FUS		28.4	388.2	DTA	[1995KEL/SCH]
$C_{16}H_{19}ClO_2$	[164591-95-1]	4-*trans*-(4-chlorophenyl)cyclohexyl (*E*)-2-butenoate				
	FUS		30.2	386.2	DTA	[1995KEL/SCH]
$C_{16}H_{19}FO_2$	[164591-94-0]	4-*trans*-(4-fluorophenyl)cyclohexyl (*E*)-2-butenoate				
	FUS		25.1	354.2	DTA	[1995KEL/SCH]
$C_{16}H_{19}F_3N_2S$	[1383254-33-8]	*N*-[4-(trifluoromethyl)phenyl]-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		32.8	422.8	DSC	[2012BLO/OLK]
	SUB	(384–403)	122.6 ± 1.5	394	GS	[2012OLK/SHA]
	V		105.3	298	Sub–Fus	[2012OLK/SHA]
$C_{16}H_{19}NO$	[317820-07-8]	2-(4-butoxyphenyl)-5-methylpyridine				
	FUS		33.0	363	DSC	[2000MOR/HAR]
$C_{16}H_{19}N_3$	[2481-94-9]	4-(*N*,*N*-diethylammo)azobenzene				
	FUS		25.7	371	DSC	[2002SAW/SHI]
	SUB	(353–368)	131.3	361	GC	[2002SAW/SHI]
	SUB		132.2		GS	[1987SHI/OHK, 1991HOR]
	SUB	(330–353)	91.4 ± 2.9	342		[1984KRI]
	SUB		106.4		UV	[1984KAR/ROD]
	SUB		106.3			[1984KAR/KRU]
	V	(373–393)	101.1	381	GC	[2002SAW/SHI]
$C_{16}H_{19}N_3O_2$	[2452-84-8]	*N*,*N*-di(2-hydroxyethyl)-4-phenylazoaniline				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		29.96	407	298	[1988BAU/PER]
$C_{16}H_{20}$	[24157-81-1]	2,6-diisopropylnaphthalene				
	FUS		18.84	343.0	DSC	[2016SAN/OLI]
	SUB	(301–323)	98.0 ± 0.2	298	ME	[2016SAN/OLI]
$C_{16}H_{20}ClNO_2S$	[424810-52-6]	*N*-adamantan-1-yl-4-chlorobenzenesulfonamide				
	FUS		25.3	459.9	DSC	[2016PER/VOL]
	SUB	(379–435)	120.1 ± 1.4	384	GS	[2016PER/VOL]
	SUB	(379–435)	126.2 ± 1.4	298	GS	[2016PER/VOL]
$C_{16}H_{20}FNO_2S$	[398995-61-2]	*N*-adamantan-1-yl-4-fluorobenzenesulfonamide				
	FUS		18.8	419.3	DSC	[2016PER/VOL]
	SUB	(363–406)	116.5 ± 1.2	384	GS	[2016PER/VOL]
	SUB	(363–406)	121.4 ± 1.2	298	GS	[2016PER/VOL]
$C_{16}H_{20}N_2$	[19219-01-3]	Tetracyclopropylsuccinonitrile				
	FUS		22.3	390		[1996DOM/HEA, 1984BER/BEC2]
	SUB		110.2 ± 1.5			[1984BER/BEC2]
$C_{16}H_{20}N_2OS$	[1383254-28-1]	*N*-l-thia-3-azaspiro[5.5]undec-2-en-2-yl-benzamide				
	FUS		27.9	403.4	DSC	[2012BLO/OLK, 2013OLK/BLO]
	SUB	(353–386)	88.3 ± 0.9	369	GS	[2013OLK/BLO]
	SUB	(353–386)	92.0 ± 0.9	298	GS	[2013OLK/BLO]
$C_{16}H_{20}N_4O_3S$	[56211-40-6]	*N*-[[(l-methylethyl)amino]carbonyl]-4-[(3′-methylphenyl)amino]-3-pyridinesulfonamide (torasemide)				
	FUS (I)		37.2	434.7		
	FUS (II)		29.0	430	DSC	[2002ROL/GST]
$C_{16}H_{20}O_2$	[105443-43-4]	2-isopropyl-6-(l-hydroperoxy-1-methyethyl)naphthalene				
	FUS		24.9	335.2	DSC	[1998STE/ZAW]
$C_{16}H_{20}O_3$	[146683-17-2]	3-benzoyl-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		20.35	387.6	DSC	[1992TER/PAU]
$C_{16}H_{20}O_4$	[96783-79-8]	2,6-bis(l-hydroperoxy-1-methylethyl)naphthalene				
	FUS		38.3	394.2	DSC	[1998STE/ZAW]
$C_{16}H_{20}O_6P_2S_3$	[3383-96-8]	*O*,*O*,*O*′,*O*′-tetramethyl *O*, *O*′-thiodi-*p*-phenylene bis(phosphorothioate)				
	FUS		33.03	303.2	DSC	[1990DON/DRE]
$C_{16}H_{21}ClN_2S$	[1383254-30-5]	*N*-(3-chloro-4-methylphenyl)-l-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		33.2	422.3	DSC	[2012BLO/OLK]
	SUB	(385–407)	114.5 ± 1.9	396	GS	[2012OLK/SHA]
	V		96.6	298	S–F	[2012OLK/SHA]
$C_{16}H_{21}Cl_3O_3$	[1928-47-8]	2,4,5-trichlorophenoxyacetic acid, (2-ethylhexyl) ester				
	V	(460–575)	85.4	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{16}H_{21}Cl_3O_3$	[2630-15-1]	2,4,5-trichlorophenoxyacetic acid, octyl ester				
	V	(460–575)	92.2	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
$C_{16}H_{21}N$	[61203-99-4]	4-(*trans*-4-propycyclohexyl)benzonitrile				
	TRS	(15–385)	20.4	316.3		
	FUS	(15–385)	1.1	319	AC	[1998ASA/SOR]
$C_{16}H_{21}NO_2$	[4199-09-1]	(−)-1-(isopropylamino)-3-(1-naphthyloxy)-2-propanol (propranolol)				
	FUS		36.25	344.7	DSC	[1999LI/ZEL]
	FUS		34.2	344.6	DSC	[1993NEA/SHI]
$C_{16}H_{21}NO_2$	[525-66-6]	(±)-l-(isopropylamino)-3-(l-naphthyloxy)-2-propanol (propranolol)				
	FUS		43.45	365.5	DSC	[1999LI/ZEL]
	FUS		38.1	365.2	DSC	[1993NEA/SHI]
$C_{16}H_{21}NO_2S$	[25192-02-3]	*N*-adamantan-1-ylbenzenesulfonamide				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		14.7	397.4	DSC	[2016PER/VOL]
	SUB	(366–394)	119.1 ± 0.8	380	GS	[2016PER/VOL]
	SUB	(366–394)	123.6 ± 0.8	298	GS	[2016PER/VOL]
$C_{16}H_{22}ClNO_3$	[4199-10-4]	(−)-l-(isopropylamino)-3-(l-naphthyloxy)-2-propanol hydrochloride (propranolol hydrochloride)				
	FUS		36.0	467.8	DSC	[1999LI/ZEL]
$C_{16}H_{22}ClNO_3$	[318-98-9]	(±)-l-(isopropylamino)-3-(l-naphthyloxy)-2-propanol hydrochloride (propranolol hydrochloride)				
	FUS		16.31	437.1	DSC	[2016AMB/CER]
[Note: The authors of [2016AMB/CER] refer to the compound simply as propranolol. The purchased compound was the hydrochloride salt, and there is no mention in the paper that the compound was converted to the neutral base.]						
	FUS		39.0	436.6	DSC	[1999LI/ZEL]
	FUS (I)		31.3	436.2		
	FUS (II)		36.6	436.8	DSC	[1999BAR/BER]
$C_{16}H_{22}ClNO_3$	[38727-55-8]	*N*-(chloroacetyl)-*N*-(2,6-diethylphenyl)glycine ethyl ester				
	FUS		23.84	318	DSC	[1990DON/DRE]
$C_{16}H_{22}Cl_2O_3$	[1928-43-4]	2,4-dichlorophenoxyacetic acid, (2-ethylhexyl) ester				
	V	(460–575)	83.0	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(460–575)	80.0	516	GC	[1966JEN/SCH]
$C_{16}H_{22}Cl_2O_3$	[1917-97-1]	2,4-dichlorophenoxyacetic acid, (l-methylheptyl) ester				
	V	(460–575)	83.0	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(460–575)	80.8	516	GC	[1966JEN/SCH]
$C_{16}H_{22}Cl_2O_3$	[1928-44-5]	2,4-dichlorophenoxyacetic acid, octyl ester				
	V	(460–573)	87.9	475	A,GC	[1987STE/MAL, 1966JEN/SCH]
	V	(460–575)	83.4	516	GC	[1966JEN/SCH]
$C_{16}H_{22}N_2$	[137274-48-7]	1-(4-cyanophenyl)-4-butylypiperidine				
	FUS		17.0	315.2	DSC	[1991SHE/WEI]
$C_{16}H_{22}N_2OS$	[1383254-29-2]	*N*-(4-methoxyphenyl)-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		29.3	388.5	DSC	[2012BLO/OLK, 2013OLK/BLO]
	SUB	(353–381)	135.0 ± 1.9	368	GS	[2013OLK/BLO]
	SUB	(353–381)	139.1 ± 1.9	298	GS	[2013OLK/BLO]
$C_{16}H_{22}N_2S$	[1383254-24-7]	*N*-(4-methylphenyl)-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		29.7	381.3	DSC	[2012BLO/OLK]
	SUB	(353–394)	131.6 ± 1.9	373	GS	[2012OLK/SHA]
	V		114.8	209	Sub–Fus	[2012OLK/SHA]
$C_{16}H_{22}N_4O_4$	[53808-87-0]	5-[[3,5-dimethoxy-4-(2-methoxyethoxy)phenyl]methyl]-2,4-pyrimidinediamine (tetroxoprim)				
	FUS		46.36	423.3	DSC	[2002CAI/BET]
$C_{16}H_{22}O_4$	[84-74-2]	Dibutyl phthalate				
	V		99.3 ± 3.2	298	CRT	[2015GOB/CHI]
	V		92.4 ± 5.1	298	CGC	[2015GOB/CHI]
	V		95.2 ± 1.7	298	CGC	[2014GOB/CHI]
	V	(333–378)	86.8 ± 0.4	356	GS	[2014GOB/CHI]
	V	(363–423)	84.0	393	TGA	[2012VER/RAL]
	V	(363–423)	96.0 ± 0.8	298	TGA	[2012VER/RAL]
	V	(438–520)	83.6	452	BG	[1988KAT]
	V	(438–520)	80.4	462	BG	[1988KAT]
	V	(438–520)	75.4	497	BG	[1988KAT]
	V	(438–520)	74.9	512	BG	[1988KAT]
	V	(314–469)	94.0	329	A	[1987STE/MAL]
	V	(468–605)	76.1	483	A	[1987STE/MAL]
	V	(293–373)	89.8	333	GS	[1981HAL/COG, 2012VER/RAL]
	V	(293–373)	95.8 ± 0.3	298	GS	[1981HAL/COG, 2012VER/RAL]
	V	(288–313)	91.7	300		[1949BIR/BRA]
	V		93.7			[1948SMA/SMA]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{22}O_4$	[4489-61-6]	di-*sec*-butyl phthalate				
	V	(313–373)	93.8	328	A,ME	[1987STE/MAL, 1948SMA/SMA]
$C_{16}H_{22}O_4$	[1962-75-0]	Dibutyl terephthalate				
	V	(393–483)	86.2	408	A	[1987STE/MAL]
$C_{16}H_{23}N$	[199394-72-4]	*N*-cyclohexyl-(2,4,6-trimethyl)benzaldehyde imine				
	FUS		25.61	339.4	DSC	[1997VER/MOR]
	SUB		104.9 ± 0.8	298	B	[1997VER/MOR]
	V	(341–368)	75.3 ± 1.0	355	GS	[1997VER/MOR]
	V	(341–368)	78.7 ± 1.0	298	GS	[1997VER/MOR]
$C_{16}H_{24}N_2$		2-(4-*tert*-butylphenyl)-2-(diethylamino)acetonitrile				
	FUS		24.39	327.2		[1997WEL/VER]
$C_{16}H_{24}N_2O$	[98626-60-9]	*N*-(2,6-dimethylphenyl)-1-ethyl-2-piperidinecarboxamide				
	FUS		19.9	408.2	DSC	[1997NEM/ACS]
$C_{16}H_{24}N_2OS$	[862582-66-9]	2-[(diethylamino)thioxomethyl]-*N*,*N*-dimethylbenzamide				
	FUS		28.79	353.5	DSC	[2005ALT/COP]
$C_{16}H_{24}N_2O_2$	[81994-74-3]	*N*-benzoyl-*N*′,*N*′-diisobutylurea				
	SUB		137.5 ± 4.4	298	C	[2000RIB/RIB]
$C_{16}H_{24}N_2O_4$		Nonyl *N*-(4-nitrophenyl)carbamate				
	FUS		37.0	378.6	DSC	[1993TIE/FRA]
$C_{16}H_{24}N_2S_2$	[862582-67-0]	*N*,*N*,*N*′,*N*′-tetraethyl-1,2-benzenedicarbothiamide				
	FUS		23.39	388.4	DSC	[2005ALT/COP]
$C_{16}H_{24}N_6$	[125867-93-8]	1-(methylphenethylamino)-3,5-bis(dimethylamino)-*s*-triazine				
	FUS		20.04	334.2	DSC	[1991ACR, 1989BRA/RYT]
$C_{16}H_{24}O_4$	[175848-65-4]	2,5-dipentoxy-1,4-benzoquinone				
	TRS		9.0	333.7		
	FUS		36.5	414.6	DSC	[1996KEE/VAN]
$C_{16}H_{25}Cl$	[412027-20-4]	Chloro(pentaethyl)benzene				
	V	(363–558)	60.3	378	A	[1987STE/MAL, 1947STU]
$C_{16}H_{25}NO_2$	[37139-21-2]	Nonyl 4-aminobenzoate				
	FUS		44.3	343.4	DSC	[1990NEA/FLY]
$C_{16}H_{25}NO_2$	[33689-71-3]	Nonyl phenylcarbamate				
	FUS		28.07	327		[1971PRI]
$C_{16}H_{25}N_3S$	[90473-97-5]	*N*-(diethylaminothiocarbony)-*N*′,*N*′-diethylbenzamide				
	SUB		122.2 ± 2.0	298	C	[2004RIB/SAN]
$C_{16}H_{26}$	[104-72-3]	Decylbenzene				
	V	(318–363)	78.2 ± 0.3	298	GS	[2006VER]
	V	(313–433)	78.0	328		[1993KAS/MOK]
	V	(371–427)	75.1	386	A	[1987STE/MAL]
	V		79.8	298		[1971WIL/ZWO]
	V	(475–571)	61.6	490	A,IPM	[1987STE/MAL, 1954CAM/FOR]
$C_{16}H_{26}$	[605-01-6]	Pentaethylbenzene				
	V	(359–550)	56.5	374	A	[1987STE/MAL, 1947STU]
$C_{16}H_{26}O$	[4130-42-1]	2,6-di-*tert*-butyl-4-ethylphenol				
	V	(362–557)	62.8	348		[1953STA/MUL]
	V	(362–557)	60.4	373		[1953STA/MUL]
	V	(362–557)	58.6	398		[1953STA/MUL]
	V	(362–557)	57.3	423		[1953STA/MUL]
	V	(362–557)	52.6	473		[1953STA/MUL]
$C_{16}H_{26}O$	[6287-47-4]	4,6-di-*tert*-butyl-2-ethylphenol				
	V	(413–556)	61.9	428	A	[1987STE/MAL]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(413–562)	57.3	423		[1953STA/MUL]
	V	(413–562)	52.6	473		[1953STA/MUL]
$C_{16}H_{26}O$	[70766-54-0]	2,4-di-*tert*-butyl-5,6-dimethylphenol				
	V	(431–565)	69.1	446	A	[1987STE/MAL]
$C_{16}H_{26}O$	[19245-41-1]	2,4-di-*tert*-butyl-5-ethylphenol				
	V	(384–563)	69.3	399	A	[1987STE/MAL]
$C_{16}H_{26}O$		2,4,5-triisopropylbenzyl alcohol				
	V	(312–346)	113.1	327	A	[1987STE/MAL]
$C_{16}H_{26}O_4$	[965-40-2]	Dicyclohexyl succinate				
	V	(338–365)	98.0 ± 0.8	298	GS	[2008LIP/KRA]
$C_{16}H_{26}O_{11}$	[116401-21-9]	Diethylene glycol dicarboxylic acid, di[l-(ethoxycarbonyl)ethyl] ester				
	V	(418–503)	99.3	433	A	[1987STE/MAL, 1949REH/DIX]
$C_{16}H_{28}$	[3752-92-9]	Tricyclopentylmethane				
	V	(273–351)	77.8	288	A	[1987STE/MAL, 1964MOR]
	V	(371–429)	71.4	386	A	[1987STE/MAL]
$C_{16}H_{28}$	[283-68-1]	Tricyclo[8.2.2.$2^{4,7}$]hexadecane				
	SUB	(316–338)	91.6 ± 0.9	298	ME	[1969SHI/MCN, 1977PED/RYL]
	SUB	(316–338)	85.2	327	A	[1987STE/MAL, 1969SHI/MCN]
$C_{16}H_{28}O_2$	[31067-25-1]	1,9-cyclohexadecanedione				
	TRS		17.95	301.2		
	FUS		8.03	351.2		[1972ALV/BOR]
$C_{16}H_{28}O_2$	[54664-98-1]	(*E*,*E*)-9,11-tetradecadienyl acetate				
	V		92.3 ± 3.6	298	CGC	[2016GOO/HAS]
$C_{16}H_{28}O_4$	[38734-10-0]	1,7-cyclododecanedione bis(ethylene ketal				
	FUS		36.94	478.2		[1972ALV/BOR]
$C_{16}H_{28}O_4$	[2424-61-5]	Dodecyl maleate				
	FUS		52.0	324.5	DSC	[2016RIC/DEL]
$C_{16}H_{30}N_2$	[19219-01-3]	Tetracyclopropylsuccinonitrile				
	SUB		110.2 ± 1.5			[1984BER/BEC2]
$C_{16}H_{30}O$	[541-91-3]	3-methylcyclopentadecanone				
	V	(391–601)	63.5	406	A	[1987STE/MAL]
$C_{16}H_{30}O$	[2550-52-9]	Cyclohexadecanone				
	SUB		82.0			[1938WOL/WEG, 1960JON]
$C_{16}H_{30}O$	[174155-58-9]	(*Z*)-3-hexadecenal				
	V	(373–413)	89.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[174155-57-8]	(*E*)-3-hexadecenal				
	V	(373–413)	89.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[88373-69-7]	(*Z*)-4-hexadecenal				
	V	(373–413)	88.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[174155-59-0]	(*E*)-4-hexadecenal				
	V	(373–413)	88.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[88373-68-6]	(*Z*)-5-hexadecenal				
	V	(373–413)	87.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[99142-11-7]	(*E*)-5-hexadecenal				
	V	(373–413)	88.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[88373-67-5]	(*Z*)-6-hexadecenal				
	V	(373–413)	87.9	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[103346-18-5]	(*E*)-6-hexadecenal				
	V	(373–413)	88.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{30}O$	[56797-40-1]	(*Z*)-7-hexadecenal				
	V	(373–413)	87.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-27-2]	(*E*)-7-hexadecenal				
	V	(373–413)	88.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[66644-98-2]	(*Z*)-8-hexadecenal				
	V	(373–413)	87.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-28-3]	(*E*)-8-hexadecenal				
	V	(373–413)	88.4	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[56219-04-6]	(*Z*)-9-hexadecenal				
	V	(373–413)	88.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-29-4]	(*E*)-9-hexadecenal				
	V	(373–413)	88.6	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[68279-24-3]	(*Z*)-10-hexadecenal				
	V	(373–413)	88.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-30-7]	(*E*)-10-hexadecenal				
	V	(373–413)	88.8	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[53939-28-9]	(*Z*)-11-hexadecenal				
	V	(373–413)	88.5	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[57491-33-5]	(*E*)-11-hexadecenal				
	V	(373–413)	89.2	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-31-8]	(*Z*)-12-hexadecenal				
	V	(373–413)	89.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-32-9]	(*E*)-12-hexadecenal				
	V	(373–413)	89.3	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[71545-96-5]	(*Z*)-13-hexadecenal				
	V	(373–413)	89.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O$	[72698-33-0]	(*E*)-13-hexadecenal				
	V	(373–413)	90.0	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[142-90-5]	Dodecyl methacrylate				
	V	(438–580)	64.9	453	A	[1987STE/MAL]
$C_{16}H_{30}O_2$	[109-29-5]	Oxa-2-cycloheptadecanone				
	V	(403–463)	71.6	418	A	[1987STE/MAL]
$C_{16}H_{30}O_2$	[51309-20-7]	(*Z*)-2-tetradecenyl acetate				
	V	(353–398)	89.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[51309-21-8]	(*E*)-2-tetradecenyl acetate				
	V	(353–398)	90.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[54897-65-3]	(*Z*)-3-tetradecenyl acetate				
	V	(353–398)	88.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[56221-90-0]	(*E*)-3-tetradecenyl acetate				
	V	(353–398)	89.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[54897-66-4]	(*Z*)-4-tetradecenyl acetate				
	V	(353–398)	87.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[56209-67-7]	(*E*)-4-tetradecenyl acetate				
	V	(353–398)	89.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-13-0]	(*Z*)-5-tetradecenyl acetate				
	V	(353–398)	88.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[34010-13-4]	(*E*)-5-tetradecenyl acetate				
	V	(353–398)	89.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{30}O_2$	[39650-11-8]	(*Z*)-6-tetradecenyl acetate				
	V	(353–398)	88.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[39650-10-7]	(*E*)-6-tetradecenyl acetate				
	V	(353–398)	88.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[16974-10-0]	(*Z*)-7-tetradecenyl acetate				
	V	(353–398)	88.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[28540-79-6]	(*E*)-7-tetradecenyl acetate				
	V	(353–398)	89.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35835-80-4]	(*Z*)-8-tetradecenyl acetate				
	V	(353–398)	88.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[56218-64-5]	(*E*)-8-tetradecenyl acetate				
	V	(353–398)	89.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[16725-53-4]	(*Z*)-9-tetradecenyl acetate				
	V	(353–398)	89.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(303–317)	90.0	310	GC	[1983OLS/JON]
$C_{16}H_{30}O_2$	[23192-82-7]	(*E*)-9-tetradecenyl acetate				
	V	(353–398)	89.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-16-3]	(*Z*)-10-tetradecenyl acetate				
	V	(353–398)	89.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-17-4]	(*E*)-10-tetradecenyl acetate				
	V	(353–398)	89.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[20711-10-8]	(*Z*)-11-tetradecenyl acetate				
	V	(353–398)	90.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[33189-72-9]	(*E*)-11-tetradecenyl acetate				
	V		89.6 ± 3.5	298	CGC	[2016GOO/HAS]
	V	(353–398)	90.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-20-9]	(*Z*)-12-tetradecenyl acetate				
	V	(353–398)	90.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[35153-21-0]	(*E*)-12-tetradecenyl acetate				
	V	(353–398)	90.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{16}H_{30}O_2$	[90176-51-5]	Methyl-(*Z*)-10-pentadecenoate				
	V		91.7	298	CGC	[2007LIP/KAP]
$C_{16}H_{30}O_2$	[373-49-9]	*cis*-9-hexadecenoic acid (palmitoleic acid)				
	TRS		7.5	254.8		
	FUS		32.1	275.2	DSC	[1997SAT/YAN]
	SUB		152.1 ± 6.4	298	V+F	[2015WIL/GOB]
	V		123.0 ± 6.4	298	CGC	[2015WIL/GOB]
$C_{16}H_{30}O_2$	[109-29-5]	1,16-hexadecanolide				
	FUS		7.7	309.2	DSC	[2011EME/VER]
	V	(323–379)	81.7	323	GS	[2011EME/VER]
	V	(323–379)	79.8	345	GS	[2011EME/VER]
	V	(323–379)	78.2	364	GS	[2011EME/VER]
	V	(323–379)	77.0	379	GS	[2011EME/VER]
	V	(323–379)	83.8 ± 0.4	298	GS	[2011EME/VER]
$C_{16}H_{30}O_3$	[6720-22-5]	1,7-dioxa-8-cyclooctadecanone				
	V	(403–463)	73.3	418	A	[1987STE/MAL]
$C_{16}H_{30}O_3$	[36575-58-3]	1,9-dioxa-2-cyclooctadecanone				
	V	(403–463)	74.5	418	A	[1987STE/MAL]
$C_{16}H_{30}O_4$	[14027-78-2]	Dipentyl adipate				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(449–575)	74.7	464	A	[1987STE/MAL]
$C_{16}H_{30}O_4$	[505-54-4]	Hexadecanedioic acid				
	FUS+TRS		60.1	396.4	DSC	[2006VEN/MET]
	FUS		52.2	395.4	DSC	[2005ROU/TEM]
	SUB	(377–398)	151.0 ± 3.3	388	ME	[1960DAV/THO, 1987STE/MAL]
	SUB	(377–398)	155.4 ± 3.3	298	ME	[1960DAV/THO, 1999RIB/MON]
$C_{16}H_{30}O_4$	[21668-03-1]	Dodecyl succinate				
	FUS		53.1	319.0	DSC	[2016RIC/DEL]
$C_{16}H_{30}O_5$	[5420-72-4]	Ocyl[1-(butoxycarbonyl)ethyl]carbonate				
	V	(374–503)	76.2	389	A	[1987STE/MAL, 1950REH/DIX2]
$C_{16}H_{31}N$	[629-79-8]	Hexadecanenitrile (palmitonitrile)				
	V	(345–382)	93.3 ± 0.4	298		[2005EME/VER]
	V	(503–608)	70.1	518	A	[1987STE/MAL]
$C_{16}H_{31}NO_3$	[14246-55-0]	*N*-tetradecanoylglycine				
	TRS+FUS		38.7	393.6	DSC	[2014RED/KRO]
	TRS		6.8	379.6		
	FUS		47.4	396.6	DSC	[1986MIY/MAT]
$C_{16}H_{31}NO_3$	[14379-38-5]	*N*-decanoyl-(*L*)-leucine				
	TRS		1.2	343.1		
	FUS		27.5	383.1	DSC	[1986MIY/MAT]
$C_{16}H_{31}NO_3$	[107396-12-3]	*N*-decanoyl-(*DL*)-leucine				
	FUS		28.9	357.1	DSC	[1986MIY/MAT]
$C_{16}H_{32}$	[15220-85-6]	Tetraisobutylene				
	V	(381–440)	54.5	397		[1943STE]
$C_{16}H_{32}$	[1795-16-0]	Decylcyclohexane				
	FUS	(12–300)	38.62	271.4	AC	[1991ACR, 1965FIN/MES]
	V	(371–425)	76.7	386	A	[1987STE/MAL]
	V		79.7	298		[1971WIL/ZWO]
	V	(469–571)	61.6	484	A,MM	[1987STE/MAL, 1954CAM/FOR]
$C_{16}H_{32}$	[6785-23-5]	Undecylcyclopentane				
	V		80.6	298		[1971WIL/ZWO]
$C_{16}H_{32}$	[629-73-2]	1-hexadecene				
	TRS		3.87	249.2		
	FUS		30.21	277.5		[1990MES/TOD]
	FUS	(12–304)	30.19	277.5	C	[1957MCC/FIN]
	V		80.3 ± 0.4	298	C	[1977MAN/SEL]
	V		80.3 ± 0.4	298	C	[1976STR2]
	V		80.1	298		[1971WIL/ZWO]
	V	(461–558)	61.5	476	A	[1987STE/MAL, 1954CAM/FOR]
$C_{16}H_{32}$	[295-65-8]	Cyclohexadecane				
	TRS		19.6	268.9		
	FUS		7.6	333.7	DSC	[1987DRO/MOL]
	TRS		18.83	271.2		
	TRS		1.26	283.2		
	FUS		4.18	332.2	DSC	[1975BJO/BOR2]
	SUB		81.8 ± 0.4			[1957VAN, 1970COX/PIL]
$C_{16}H_{32}O$	[141694-91-9]	(*Z*)-3-hexadecen-1-ol				
	V	(373–413)	110.7	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[128999-42-8]	(*E*)-3-hexadecen-1-ol				
	V	(373–413)	110.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[145235-63-8]	(*Z*)-4-hexadecen-1-ol				

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(373–413)	110.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[59101-23-4]	(*E*)-4-hexadecen-1-ol				
	V	(373–413)	111.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[106463-48-3]	(*Z*)-5-hexadecen-1-ol				
	V	(373–413)	110.9	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[85388-16-5]	(*E*)-5-hexadecen-1-ol				
	V	(373–413)	111.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[40642-45-3]	(*Z*)-6-hexadecen-1-ol				
	V	(373–413)	110.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[34500-33-9]	(*E*)-6-hexadecen-1-ol				
	V	(373–413)	111	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[24880-48-6]	(*Z*)-7-hexadecen-1-ol				
	V	(373–413)	110.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[51824-10-3]	(*E*)-7-hexadecen-1-ol				
	V	(373–413)	111.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64437-46-3]	(*Z*)-8-hexadecen-1-ol				
	V	(373–413)	110.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64470-33-3]	(*E*)-8-hexadecen-1-ol				
	V	(373–413)	111.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[10378-01-5]	(*Z*)-9-hexadecen-1-ol				
	V	(373–413)	110.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64437-47-4]	(*E*)-9-hexadecen-1-ol				
	V	(373–413)	111.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[64437-48-5]	(*Z*)-10-hexadecen-1-ol				
	V	(373–413)	111	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[54502-94-2]	(*E*)-10-hexadecen-1-ol				
	V	(373–413)	111.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[56683-54-6]	(*Z*)-11-hexadecen-1-ol				
	V	(373–413)	111.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[61301-56-2]	(*E*)-11-hexadecen-1-ol				
	V	(373–413)	111.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[72698-34-1]	(*Z*)-12-hexadecen-1-ol				
	V	(373–413)	111.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[72698-35-2]	(*E*)-12-hexadecen-1-ol				
	V	(373–413)	112.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[69282-65-1]	(*Z*)-13-hexadecen-1-ol				
	V	(373–413)	112.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[69282-66-2]	(*E*)-13-hexadecen-1-ol				
	V	(373–413)	112.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{16}H_{32}O$	[18787-63-8]	2-hexadecanone				
	V	(382–580)	72.3	397	A	[1987STE/MAL]
$C_{16}H_{32}O$	[629-80-1]	Hexadecanal				
	V	(343–383)	89.7	298	CGC	[1996KOU/HOS, 2000OVA/KOU]
	V	(394–594)	67.6	409	A	[1987STE/MAL, 1947STU]
$C_{16}H_{32}O_2$	[7132-64-1]	Methyl pentadecanoate				
	V		82.1	350	CE	[2002VAN/VAN]
	V		79.8 ± 0.2	372	CE	[2002VAN/VAN]
	V		89.3 ± 0.8	298	CE	[2002VAN/VAN]
	V	(433–473)	88.8	298	CGC	[1995CHI/HOS]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		91.6 ± 0.9	298	GC,C	[1980FUC/PEA]
	V		93.5 ± 1.0	298	C	[1977MAN/SEL]
	V	(295–303)	87.9 ± 1.3	299		[1968BAC/NOV]
	V	(400–527)	78.3	415	A,E	[1987STE/MAL, 1963ROS/SCH]
$C_{16}H_{32}O_2$	[124-06-1]	Ethyl tetradecanoate				
	V	(333–462)	79.1	358	Static	[2013BEN/KHI2]
	V	(446–492)	79.0	464	DSC	[2011SIL/FAL]
	V	(407–568)	71.8	422	A	[1987STE/MAL]
$C_{16}H_{32}O_2$	[106-18-3]	Butyl dodecanoate				
	V	(423–483)	89.2	298	GC	[1997KRO/VEL]
	V	(343–383)	75.8	358	A	[1987STE/MAL]
$C_{16}H_{32}O_2$	[30673-38-2]	Isobutyl dodecanoate				
	V	(345–452)	80.0	360		[2001BUR/JOS]
$C_{16}H_{32}O_2$	[638-59-5]	Tetradecyl acetate				
	V	(303–340)	89.9 ± 0.2	298	GS	[2006KRA/VER]
	V	(353–398)	91.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(411–462)	72.7	426	A	[1987STE/MAL]
$C_{16}H_{32}O_2$	[57-10-3]	Hexadecanoic acid (palmitic acid)				
	FUS		53.02	336.4	DSC	[2016CAR/CON]
	FUS		53.3	336.3	DSC	[2014MAX/CAR]
	FUS		56.18	333.75	DSC	[2012BEN/KHI]
	FUS		55.0	335.9	DSC	[2010SAR/BIC]
	FUS		55.9	335.4	DSC	[2009COS/SAR]
	TRS		3.8	318.8		
	FUS		53.9	335.4	DSC	[2009GBA/NEG]
	FUS		51.37	332.7	DSC	[2009ZEN/CAO]
	TRS		3.1	316.7		
	TRS		4.9	317.5		
	FUS		53.0	334.7	DSC	[2007MOR/COR]
	FUS		47.0	336.5	DSC	[2007MIS/MIS]
	FUS		52.3	335.8	DSC	[2004INO/HIS]
	FUS		53.4	337.7	DSC	[2001CED/PRI]
	FUS	(100-345)	53.7	335.7	AC	[1996DOM/HEA, 1982SCH/VAN]
	FUS		51.5	334.6	DSC	[1975BER/LEO]
	FUS		54.9	336.0	DTA	[1996DOM/HEA, 1967PAC]
	FUS		54.89	335.7	C	[1996DOM/HEA, 1952WAR/SIN]
	FUS		61.3	335.8		[1924STR/PAR]
	SUB		193.8 ± 11	298	TPD	[2008CAP/LOV]
	SUB	(273–303)	134		TPTD	[2005CHA/ZIE]
	SUB	(294–316)	154		TPTD	[2001CHA/TOB]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						
	SUB	(320–333)	154.4 ± 4.2	326	ME	[1961DAV/MAL, 1970COX/PIL, 1987STE/MAL]
	V		121.3 ± 4.2	298	CGC	[2015WIL/GOB]
	V		121.6 ± 7.4	298	CGC	[2013WIL/CHI]
	V	(440–625)	97.5	455	A	[1987STE/MAL]
	V	(347–374)	110.2 ± 2.0	364	ME,TE	[1982DEK/SCH]
	V		90.1	475	I	[1943CRA]
$C_{16}H_{32}O_3$	[764-67-0]	2-hydroxyhexadecanoic acid				
	SUB	(294–311)	121		TPTD	[2005CHA/ZIE]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						
$C_{16}H_{32}O_3$	[506-13-8]	16-hydroxyhexadecanoic acid				
	SUB	(316–329)	114		TPTD	[2005CHA/ZIE]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{32}O_4$	[43091-27-6]	6,6,14,14-tetramethyl-1,3,9,11-tetraoxacyclohexadecane				
	FUS		29.71	358.6		[1973DAL/EKE]
$C_{16}H_{32}O_4$	[43091-28-7]	2,2,10,10-tetramethyl-1,3,9,11-tetraoxacyclohexadecane				
	FUS		25.94	371.3		[1973DAL/EKE]
$C_{16}H_{32}O_8$	[33089-37-1]	1,4,7,10,13,16,19,22-octaoxacyclotetracosane				
	FUS		34.5	292.2		[1972DAL/KRI]
$C_{16}H_{33}Br$	[112-82-3]	1-bromohexadecane				
	V		94.4 ± 1.5	298	C	[1996WEB/DEF2]
	V	(461–673)	71.9	476	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{16}H_{33}Cl$	[4860-03-1]	1-chlorohexadecane				
	V		97.9	298		[2006BOL/NER2]
	V		96.4 ± 0.9	298	GS	[2001PUR/CHI]
	V		91.8 ± 1.1	298	C	[1977MAN/SEL]
	V	(439–600)	73.3	454	DTA	[1969KEM/KRE]
$C_{16}H_{33}F$	[408-38-8]	1-fluorohexadecane				
	V	(425–608)	66.1	440	A,E	[1970DYK/VAN]
$C_{16}H_{33}I$	[544-77-4]	1-iodohexadecane				
	FUS		46.2	295.4	DSC	[1992BAB/HWA, 1994BAB/BEN]
	V	(475–673)	99.6	298	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(475–673)	73.0	490	A,E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{16}H_{33}NO$	[629-54-9]	Hexadecanamide				
	TRS		10.4	355.5		
	FUS		45.4	376	DSC	[2008ABA/BAD]
	SUB	(364–378)	181.6 ± 1.3	371	ME	[1959DAV/JON2, 1987STE/MAL]
$C_{16}H_{33}NO$	[74534-10-4]	*N*-hexyldecanamide				
	TRS		6.0	301		
	FUS		31.0	311	DSC	[1980CAR/BUS]
$C_{16}H_{33}NO$	[6284-08-8]	*N*-butyldodecanamide				
	FUS		39.0	322.1	DSC	[1980CAR/BUS]
$C_{16}H_{33}NO$	[57303-23-8]	*N*,*N*-dibutyloctanamide				
	V	(463–513)	75.6 ± 0.7	298	CGC	[2009PAN/ANT]
$C_{16}H_{34}$	[544-76-3]	Hexadecane				
	FUS		53.2	290.9	DSC	[2015VEL/KHA]
	FUS		57.7	291.4	DSC	[2013JEO/JEO]
	FUS		53.0		DSC	[2005ESP/WHI]
	FUS		53.25	290.6	DSC	[2005HUA/SIM]
	FUS		53.0	290.7	DSC	[2004MON/RAJ]
	FUS		53.0	290.7	DSC	[1999MET/RAJ]
	FUS		U 48.9	293.2	DSC	[1992BAB/HWA, 1994BAB/BEN]
	FUS		53.35	291.3		[1996DOM/HEA, 1954FIN/GRO2]
	FUS		51.54	291.1		[1996DOM/HEA, 1949PAR/MOO2]
	SUB		135.1	298	B	[1972MOR3]
	SUB		134.9	291	B	[1963BON]
	SUB	(288–290)	U83.4 ± 8		ME	[1949BRA/SHE]
	V	(303–364)	74.9	333	GS	[2012VER/RAL]
	V	(303–364)	80.7 ± 0.4	298	GS	[2012VER/RAL]
	V	(323–383)	74.5	353	TGA	[2012VER/RAL]
	V	(323–383)	81.7 ± 0.8	298	TGA	[2012VER/RAL]
	V		81.8 ± 1.3	298	CGC	[2000NIC/ORF]
	V	(453–503)	81.4	298	CGC	[1995CHI/HOS]
	V	(423–473)	81.4	298	CGC	[1995CHI/HOS]
	V	(363–413)	81.2	298	CGC	[1995CHI/HOS]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(393–583)	68.5	408		[1994MOR/KOB]
	V		81.4	298		[1994RUZ/MAJ]
	V	(505–589)	59.8	520		[1992LEE/DEM]
	V	(323–423)	74.9	338	A	[1987STE/MAL]
	V		66.9	343	GC	[1977NOV/NOV]
	V		66.2	353	GC	[1977NOV/NOV]
	V		65.6	363	GC	[1977NOV/NOV]
	V		64.9	373	GC	[1977NOV/NOV]
	V		64.2	383	GC	[1977NOV/NOV]
	V		81.4 ± 0.4	298	C	[1972MOR2]
	V		81.1	298		[1971WIL/ZWO]
	V		70.6 ± 0.4	298	C	[1963MOR/SUN]
	V	(467–563)	61.7	482	A,MM	[1987STE/MAL, 1954CAM/FOR]
	V	(299–324)	93.4	311	ME	[1949PAR/MOO]
	V	(293–308)	80.2	300	ME	[1949BRA/SHE2]
	V	(442–469)	65.7	455	ME	[1938UBB]
$C_{16}H_{34}$	[1560-93-6]	2-methylpentadecane				
	V	(417–554)	62.0	432	A	[1987STE/MAL]
$C_{16}H_{34}$	[2882-96-4]	3-methylpentadecane				
	V	(417–555)	61.0	432	A	[1987STE/MAL]
$C_{16}H_{34}$	[2801-87-8]	4-methylpentadecane				
	V	(411–553)	57.8	426	A	[1987STE/MAL]
$C_{16}H_{34}$	[25117-33-3]	5-methylpentadecane				
	V	(408–551)	57.3	423	A	[1987STE/MAL]
$C_{16}H_{34}$	[6165-40-8]	7-methylpentadecane				
	V	(355–410)	66.3	370	A	[1987STE/MAL]
$C_{16}H_{34}$	[18435-23-9]	2,3-dimethyltetradecane				
	V	(412–554)	57.4	427	A	[1987STE/MAL]
$C_{16}H_{34}$	[61868-06-2]	2,4-dimethyltetradecane				
	V	(404–539)	60.6	419	A	[1987STE/MAL]
$C_{16}H_{34}$	[103392-36-5]	2,4,6-trimethyltridecane				
	V	(395–521)	59.1	410	A	[1987STE/MAL]
$C_{16}H_{34}$	[4390-04-9]	2,2,4,4,6,8,8-heptamethylnonane				
	V	(423–545)	52.4	438		[1988AMB/GHI]
$C_{16}H_{34}$	[78715-64-7]	3,3.6,6-tetraethyloctane				
	V	(301–330)	73.0 ± 1.9	308	HSA	[1995CHI/HES]
	V		74.3 ± 1.9	298		[1995CHI/HES]
	V		72.3 ± 1.8	298	CGC	[1995CHI/HES]
$C_{16}H_{34}N_2$	[39198-34-0]	bis(1,1,3,3-tetramethylbutyl)diazene				
	V		66.5 ± 0.6	298	C	[1976ENG/MEL]
$C_{16}H_{34}O$	[36653-82-4]	1-hexadecanol				
	FUS		60.96	322.9	DSC	[2016CAR/CON]
	FUS		36.4	323.3	DSC	[2014CAR/DOS]
	TRS + FUS		56.4	323.2	DSC	[2014MAX/CAR]
[Note: The value includes the enthalpy for the transition that occurred at 322.3 K.]						
	FUS	(80–370	57.7	322.2	AC	[2008XIN/TAN]
	TRS		24.2	321.1		
	FUS		33.1	321.6	DSC	[2005MET/LEF]
	FUS		33.1	321.6	DSC	[2004VEN/CAL]
	TRS		21.21	322.2		[1979KUC/SKU]
	FUS		33.97	322.9		[1979KUC/SKU]
	TRS + FUS		53.45	322.45	DSC	[1978ECK/MUL]
	TRS (γ to α)		23.7	322.2		
	FUS (α)		33.6	322.3		

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (γ)		58.41	322.2	AC	[1974MOS/MOU]
	TRS		24.8	315		
	FUS		30.8	322	C	[1950KAK/SAK]
	SUB	(308–320)	167.4 ± 2.1	314	ME	[1965DAV/KYB, 1987STE/MAL]
	SUB		169.5 ± 2.1	298		[1965DAV/KYB]
	V		107.7 ± 1.2	298	CGC	[2006NIC/KWE]
	V	(328–362)	100.4	347	GS	[2001KUL/VER2]
	V	(328–362)	108.8	298	GS	[2001KUL/VER2]
	V		112.5	298	CGC	[2000OVA/KOU]
	V	(343–463)	88.2	403		[1992NGU/KAS]
	V	(509–569)	68.9	524	A	[1987STE/MAL]
	V	(415–487)	83.2	430	A	[1987STE/MAL, 1974AMB/ELL]
	V	(323–335)	109.4	329	A	[1987STE/MAL]
	V	(323–376)	112.3	338		[1973WIL/ZWO]
	V	(418–463)	78.8	423		[1973WIL/ZWO]
	V	(498–569)	70.0	513	A,EB	[1987STE/MAL, 1970AMB/SPR]
	V	(445–598)	77.3	460	DTA	[1969KEM/KRE]
	V	(323–335)	109.5	329	ME	[1965DAV/KYB]
$C_{16}H_{34}O$	[14852-31-4]	2-hexadecanol				
	V	(333–453)	102.2	348		[1999NGU/BER]
$C_{16}H_{34}O$	[629-82-3]	Dioctylether				
	FUS		55.75		DSC	[2014HAS/JIR]
$C_{16}H_{34}O_2$	[7735-42-4]	1,16-hexadecanediol				
	FUS+TRS		72.8	366.0	DSC	[2014BAD/NOW]
	TRS		36.18	366.5		
	FUS		27.14	367.1	DSC	[2009EGO/MAR]
	FUS		64.2	365.4	DSC	[1999OGA/NAK]
	V		163.3 ± 4.8	298	CGC	[2006UMN/KWE]
	V		130.4 ± 3.6	398		[1993PIA/FER, 2006UMN/KWE]
	V		147.5 ± 4.3	298		[1993PIA/FER, 2006UMN/KWE]
$C_{16}H_{34}O_2S$	[126835-77-6]	3-(tridecylthio)-1,2-propanediol				
	TRS		11.3	296.9		
	FUS		22.7	330.6	DSC	[1993ACR, 1990VAN/VAN]
$C_{16}H_{34}O_3$	[10431-00-2]	3-(tridecyloxy)-1,2-propanediol				
	FUS		51.4	324.2	DSC	[1993ACR, 1990VAN/VAN]
$C_{16}H_{34}O_3$	[3055-93-4]	2[2-(dodecyloxy)ethoxy]ethanol				
	V	(448–489)	82.1	463	A	[1987STE/MAL, 1974NAK/EDA]
$C_{16}H_{34}O_4S_2$		2-deoxy-(*D*)-glucose dipentyl dithioacetal				
	FUS		63.1	393.3	DSC	[1989VAN/VAN]
$C_{16}H_{34}O_4S_2$		(*L*)-rhamnose dipentyl dithioacetal				
	FUS		46.5	388.2	DSC	[1989VAN/VAN]
$C_{16}H_{34}O_5S_2$	[115395-53-4]	(*D*)-glucose dipentyl dithioacetal				
	FUS		49.1	389	DSC	[1989VAN/VAN]
$C_{16}H_{34}O_5S_2$	[123389-86-6]	(*D*)-galactose dipentyl dithioacetal				
	TRS		2.7	384.6		
	FUS		41.1	392.1	DSC	[1989VAN/VAN]
$C_{16}H_{34}S$	[2917-26-2]	1-hexadecanethiol				
	V	(470–643)	72.4	485		[1999DYK/SVO]
$C_{16}H_{34}S$	[2690-08-6]	Dioctyl sulfide				
	V	(335–442)	71.6	388		[2004SAW/MOK]
	V	(465–550)	95.0 ± 10.7	298	EB	[1997STE/CHI4]
	V	(465–550)	72.0 ± 0.6	460	EB	[1997STE/CHI4]
	V	(465–550)	67.8 ± 0.5	500	EB	[1997STE/CHI4]

TABLE 12. Phase change enthalpies of C_{14} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(465–550)	63.7 ± 0.6	540	EB	[1997STE/CHI4]
$C_{16}H_{34}S_2$	[822-27-5]	Diheptyl disulfide				
	V	(479–656)	73.9	494		[1999DYK/SVO]
$C_{16}H_{35}N$	[1120-48-5]	Dioctylamine				
	V		92.6 ± 7.6	298	CGC	[2014THO/GOB]
	V	(448–597)	87.1 ± 1.3	298	EB	[1996STE/CHI3]
	V	(448–597)	72.2 ± 0.7	440	EB	[1996STE/CHI3]
	V	(448–597)	67.8 ± 0.6	480	EB	[1996STE/CHI3]
	V	(448–597)	63.4 ± 0.6	520	EB	[1996STE/CHI3]
	V	(448–597)	58.6 ± 0.7	560	EB	[1996STE/CHI3]
	V	(448–597)	53.4 ± 1.1	600	EB	[1996STE/CHI3]
$C_{16}H_{35}N$	[143-27-1]	Hexadecylamine				
	V	(498–609)	66.9	513	A	[1987STE/MAL]
$C_{16}H_{35}N$	[112-75-4]	*N,N*-dimethyltetradecylamine				
	V		77.3 ± 1.9	298	CGC	[2014GOB/VIK]
$C_{16}H_{35}N$	[99916-30-0]	*N,N*-dimethyl-2-pentylnonylamine				
	V	(401–552)	64.8	425	EB	[1987MIL/FEN2]
$C_{16}H_{35}NO_2$	[126835-68-5]	3-(tridecylamino)-1,2-propanediol				
	FUS		68.7	354.9	DSC	[1993ACR, 1990VAN/VAN]
$C_{16}H_{36}N_2$	[60678-70-8]	Tetrabutyl hydrazine				
	V	(392–453)	51.1	407	A	[1987STE/MAL, 1943WES/EUC]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature Range	$\Delta_{trans}H_m$ (kJ mol)	T_m (K)	Method	Reference
$C_{17}H_{10}ClN_3O_3$	[191978-90-2]	1-(4-chlorobenzoyl)-1,2-dihydro-6-nitro-1-quinolinecarbonitrile				
	FUS		25.62	430.5	DSC	[2005LIZ/ZAB]
$C_{17}H_{10}O$	[82-05-3]	Benzanthrone				
	FUS		26.36	446.8	CVC	[2014FON/GUS]
	SUB		127.3 ± 0.6	298	ME	[2014FON/GUS]
	SUB	(388–402)	122.5 ± 0.6	395	ME	[2011SAN/LIM]
	SUB	(388–402)	125.3 ± 1.1	298	ME	[2011SAN/LIM]
	SUB	(389–403)	122.6 ± 0.7	396	ME	[2011SAN/LIM]
	SUB	(389–403)	125.4 ± 1.1	298	ME	[2011SAN/LIM]
	SUB	(392–408)	122.4 ± 0.5	400	ME	[2011SAN/LIM]
	SUB	(392–408)	125.4 ± 1.0	298	ME	[2011SAN/LIM]
	SUB	(390–410)	122.6 ± 0.6	400	ME	[2006RIB/MON]
	SUB	(390–410)	125.6 ± 0.6	298	ME	[2006RIB/MON]
	SUB	(389–409)	121.6 ± 0.6	399	ME	[1999RIB/FER]
	SUB	(389–409)	126.6 ± 0.6	298	ME	[1999RIB/FER]
	SUB	(373–393)	129.7 ± 2.1	298	QR	[1999RIB/FER]
	SUB	(373–393)	125.5 ± 2.1	382	QR	[1999RIB/FER]
	SUB	(353–388)	119.7 ± 5.4	370	ME	[1984BUR/MOR]
	SUB	(353–388)	124.6 ± 6.0	298	ME	[1984BUR/MOR]
	SUB		114.2 ± 0.8		QR	[1979YAN/TEP]
	SUB		115.5	398	ME	[1952INO/SHI, 1960JON]
	V	(498–673)	91.4	513	A	[1987STE/MAL, 1947STU]
$C_{17}H_{10}O$	[116232-62-3]	Benzo[*a*]fluorenone				
	FUS		15.6	406.9	DSC	[2010KES/AUC]
$C_{17}H_{10}O$		1-pyrenecarboxaldehy de				
	TRS		2.8	340.4		[2015SAN/OLI]
	FUS		11.0	399.9	DSC	[2015SAN/OLI]
	SUB	(377–400)	110.9 ± 0.4	388	ME	[2015SAN/OLI]
	SUB (I)	(377–400)	114.6 ± 0.4	298	ME	[2015SAN/OLI]
	SUB (II)	(377–400)	117.4 ± 0.4	298	ME	[2015SAN/OLI]
$C_{17}H_{11}ClN_2O_2$	[191979-25-6]	2-cyano-1(2*H*)-quinolinecarboxylic acid, 4-chlorophenyl ester				
	FUS		37.19	424.2	DSC	[2005LIZ/ZAB]
$C_{17}H_{11}N$	[225-11-6]	Benz[*a*]acridine				
	FUS		21.9	402.8	DSC	[2010KES/AUC]
$C_{17}H_{11}N$	[225-51-4]	Benz[*c*]acridine				
	FUS		20.3	381.4	DSC	[2010KES/AUC]
$C_{17}H_{12}$	[238-84-6]	1,2-benzofluorene				
	TRS		3.8	399.9		
	FUS		18.4	462.8	DSC	[1996DOM/HEA, 1979FAR/SHA]
	SUB	(313–453)	105.4	383	GS	[1995NAS/LEN]
	V	(323–473)	83.7	398	GC	[2002LEI/CHA]
$C_{17}H_{12}$	[243-17-4]	2,3-benzofluorene				
	FUS		23.4	489.7	DSC	[1996DOM/HEA, 1979FAR/SHA]
	SUB	(344–398)	119.3 ± 1.3	371	ME	[1998OJA/SUU]
	SUB	(313–453)	111.2	383	GS	[1995NAS/LEN]
	V		97.5 ± 3.9	298	CGC	[2008HAN/NUT]
	V	(323–473)	84.7	398	GC	[2002LEI/CHA]
$C_{17}H_{12}$	[2381-21-7]	1-methylpyrene				
	V	(423–493)	92.3 ± 1.3	298	GC	[2006HAF/PAR]
$C_{17}H_{12}Cl_2N_4$	[28911-01-5]	8-chloro-6-(2-chlorophenyl)-1-methyl-4*H*-[1,2,4]triazolo[4,3-a][1,4]benzodiazepme (triazolam)				
	FUS		41.0	514.5	DSC	[2008WAS/HOL]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{17}H_{12}N_2O_2$	[40448-93-9]	2-cyano-1(2*H*)-quinolinecarboxylic acid, phenyl ester				
	FUS		31.52	399	DSC	[2005LIZ/ZAB]
$C_{17}H_{12}O$	[152464-07-8]	4-ethynyl-1-[(4-ethynylphenyl)methoxy]benzene				
	FUS		21.2	371.2	DSC	[1994MEL/LIT]
$C_{17}H_{12}O_2$	[24776-44-1]	4-benzoyl-1-naphthol				
	FUS		28.64	440.6	DSC	[1991ACR, 1990DOM2]
$C_{17}H_{12}O_2$	[6333-07-9]	1-benzoyl-2-naphthol				
	FUS		31.35	414.1	DSC	[1991ACR, 1990DOM2]
$C_{17}H_{12}O_2$	[21009-99-4]	2-benzoyl-1-naphthol				
	FUS		20.18	343.9	DSC	[1991ACR, 1990DOM2]
$C_{17}H_{12}O_2$	[607-55-6]	1-naphthyl benzoate				
	FUS		16.98	329.2		[1981BYS]
$C_{17}H_{12}O_2$	[93-44-7]	2-naphthyl benzoate				
	FUS		26.23	381.2		[1981BYS]
$C_{17}H_{13}ClN_4$	[28981-97-7]	8-chloro-1-methyl-6-phenyl-4*H*-[1,2,4]triazolo[4,3-a][1,4]-benzodiazepine (alprazolam)				
	FUS		32.0	501.8	DSC	[2008WAS/HOL]
	FUS		30.68	500.2	DSC	[2007NOV/PEE]
$C_{17}H_{13}F_3O$	[172424-70-3]	4-*n*-propoxy-2′, 3′, 4′-trifluorodiphenylacetylene				
	FUS		26.1	327.3	DSC	[1995HSU/TSA]
$C_{17}H_{13}N$	[6626-64-8]	5-methyl-5*H*-indeno[2,1-b] quinoline				
	SUB		131.8 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
	V	(375–388)	122.2	381	A	[1966GEI/QUI, 1970COX/PIL]
$C_{17}H_{14}ClN_5O$	[1449745-80–5]	5-benzyloxypyridine-2-aldehyde 6′-chloro-4′-pyrimidinylhydrazone				
	FUS		41	471.9	DSC	[2013PER/KAZ]
$C_{17}H_{14}F_2$	[145698-43-7]	4-*n*-propyl-3′, 4′-difluorodiphenylacetylene				
	FUS		20.2	311	DSC	[1995HSU/TSA]
$C_{17}H_{14}F_2O$	[172424-67-8]	4-*n*-propoxy-2′, 4′-difluorodiphenylacetylene				
	FUS		25.2	326.9	DSC	[1995HSU/TSA]
$C_{17}H_{14}F_3N_3O_2S$	[169590-42-5]	4-[5-(3-methylphenyl)-3-(trifluoromethyl)-1*H*-pyrazol-1-yl]-benzenesulphonamide (celecoxib)				
	FUS		38.48	433.2	DSC	[2015GAU/VAN]
	FUS		32.07	433.8	DSC	[2015NUR/BOO]
	FUS		34.9	434.3	DSC	[2013MOD/DAN]
	FUS		37.42	436	DSC	[2010BAI/VAN]
	FUS		31.86	437	DSC	[2009THI/SUB]
	FUS		34.35	436		[2003CHA/GUP]
$C_{17}H_{14}N_2O_2$	[1229-55-6]	1-[(2-methoxyphenyl)azo]-2-hyroxynaphthalene				
	SUB	(374–388)	142.4 ± 2.2	381		[1984KRI]
$C_{17}H_{14}N_2O_2$	[1156-51-0]	2,2-bis(4-cyanatophenyl)propane				
	FUS		26.69	355.8		[1996DOM/HEA, 1977LEB/RAB]
$C_{17}H_{14}N_4O_3$	[243445-12-7]	2[4,5-dihydro-5-oxo-4-phenyl-3-(2-pyridyl)-1,2,4-triazine-6(1*H*)-ylidene]acetic acid, methyl ester				
	FUS		21.6	420.6	DSC	[2005SIK/MOD]
$C_{17}H_{14}O$	[24330-03-8]	2:3,6:7-dibenzobicyclo[3.2.2]nona-2,6-dien-4-one				
	FUS		10.9	383.2	DSC	[2006PER/CON]
	V		94.5 ± 2.2	298	CGC	[2006PER/CON]
$C_{17}H_{14}O_4S$	[162011-90-7]	3-phenyl-4-[4-(methylsulfonyl)phenyl]-2(5*H*)-furanone (rofecoxib)				
	FUS		11.98	482.1	DSC	[2008TUN/TAB]
$C_{17}H_{14}O_5$	[117-52-2]	3-[1-(2-furanyl)-3-oxobutyl]-4-hydroxy-2*H*-1-benzopyran-2-one				
	FUS		33.88	391.8	DSC	[1990DON/DRE]
$C_{17}H_{15}F$	[145698-32-4]	4-*n*-propyl-4′-fluorodiphenylacetylene				

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		24.1	324	DSC	[1995HSU/TSA]
$C_{17}H_{15}FO$	[145532-20-3]	4-*n*-propoxy-4′-fluorodiphenylacetylene				
	FUS		27.1	356.8	DSC	[1995HSU/TSA]
$C_{17}H_{15}NO_2$	[154924-24-0]	l-[(4-nitrophenyl)ethynyl]-4-propylbenzene				
	FUS		23.26	351.3	DSC	[2002SPA/DZI]
$C_{17}H_{15}NO_3$	[483362-78-3]	l-[(4-nitrophenyl)ethynyl]-4-propoxy benzene				
	FUS		31.42	377	DSC	[2002SPA/DZI]
$C_{17}H_{15}NO_3$	[31842-01-0]	4-(1,3-dihydro-l-oxo-2*H*-isoindol-2-yl)-α-methylbenzeneacetic acid (±)-indoprofen				
	FUS		36.04	485	DSC	[2010BAI/VAN]
	FUS		40.3	484.6	DSC	[2006WAS/HOL, 2008WAS/HOL]
$C_{17}H_{15}NO_3S$	[313057-10-2]	4-(4-pentenyloxy)phenyl 5-cyano-2-thiophene carboxylate				
	FUS		72.8	337.6	DSC	[2000WU/WAN]
$C_{17}H_{15}N_3O_3$	[111888-46-1]	3-methyl-*N*-(2-methylphenyl)-2-quinoxalinecarboxamide-1,4-dioxide				
	SUB		154.8 ± 3.0	298	ME	[2007GOM/SOU2]
$C_{17}H_{16}Br_2O_3$	[18181-80-1]	isopropyl 4,4′-dibromobenzilate				
	FUS		24.55	348.1	DSC	[1996DOM/HEA, 1990DON/DRE]
$C_{17}H_{16}C1N_5O_3$	[40880-51-1]	3-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl](2-hydroxyethyl)amino]propanenitrile				
	FUS		26.29	428.2		[1991BAU/WEB]
	SUB	(398–408)	127.1	403	GC	[2002SAW/SHI]
	V	(423–503)	104.9	463	GC	[2002SAW/SHI]
$C_{17}H_{16}F_4N_4O_2$	[91488-84-5]	*N*-ethyl-*N*-(2,2,3,3-tetrafluoropropyl)-4-[4-nitrophenyl]azobenzenamine				
	SUB		103		UV	[1984KAR/ROD]
$C_{17}H_{16}F_4N_4O_4$	[1543-74-4]	2-[[4-(4-nitrophenyl)azo]phenyl](2,2,3,3-tetrafluoropropyl)amino]ethanol				
	SUB		103		UV	[1984KAR/ROD]
$C_{17}H_{16}N_2O_4$	[129555-39-1]	5-phenoyxmethyl-3-phenylcarbamoyl-2-oxazolidone				
	FUS		12.9	415.9	DSC	[1990SHI/HAY]
$C_{17}H_{16}OS$	[37014-01-0]	tetrahydro-2,6-diphenyl-4*H*-thiopyran-4-one				
	SUB		136	375	ME	[1972GEI/SAW]
	SUB		144 ± 3	298	ME	[1972GEI/SAW, 1977PED/RYL]
$C_{17}H_{16}O_4$	[54334-63-3]	diphenylmethylene diacetate				
	FUS		27.32	392.9	DSC	[1996VER/PEN]
	SUB	(348–388)	122.1 ± 1.2	368	GS	[1996VER/PEN]
	SUB	(348–388)	123.6 ± 1.2	298	GS	[1996VER/PEN]
$C_{17}H_{17}ClO_6$	[126-07-8]	([1*S*]-*trans*-7-chloro-,2′,4,6-trimethoxy-6′-methylsprio[benzofuran-2(3*H*),1′-(2)cyclohexene]-3,4′-dione(griseofulvin)				
	FUS		39.3	489.5	DSC	[2015NUR/BOO]
	FUS (I)		42.3	493.2		
	FUS (II)		28.6	487.2		
	FUS (III)		35.6	478.2	DSC	[2013MAN/WIL]
	FUS		39.12	491	DSC	[2010BAI/VAN]
	FUS		37.8	494.2	DSC	[2010MUR/PIK2]
	FUS		36.7	489.9	DSC	[2008ZHO/ZHA]
	FUS		41.0	493.2	DSC	[2007VIP/WAN]
	FUS		44.7	491.2	DSC	[2006WAS/HOL, 2008WAS/HOL]
	FUS		41.2	493.0	DSC	[1995WUL/ALD]
	FUS		39.39	495.2		[1983GRA/ABO]
$C_{17}H_{17}Cl_2N_5O_4$		*N*-[4-chloro-2-[(2-chloro-4-nitrophenyl)azo]-5-[(2-hydroxypropyl)amino]phenyl] acetamide				
	FUS		38.87	471.2		[1991BAU/WEB]
$C_{17}H_{17}NO$	[1404112-27-1]	*N*-(4′-methylbiphenyl-3-yl)cyclopropanecarboxamide				

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		40.4	469.5	DSC	[2015OWU/CHE]
$C_{17}H_{17}NO_4$	[483362-67-0]	2-(4-nitrophenyl)-1-(4-propoxyphenyl)ethanone				
	FUS		31.97	372.4	DSC	[2002SPA/DZI]
$C_{17}H_{17}NO_4$	[1161-13-3]	*N*-benzyloxycarbonyl-*L*-3-phenylalanine				
	FUS	(79-395)	31.77	358.8	AC	[2010ZHA/SUN]
	FUS		27.3	359.1	DSC	[2010ZHA/SUN]
$C_{17}H_{17}N_5O_2$	[31482-56-1]	4-nitro-4′-[*N*-2-cyanoethyl-*N*-ethylamino]azobenzene				
	SUB		147.3			[1984KAR/KRU]
$C_{17}H_{17}N_5O_4$	[231629-80-4]	6-(4-methoxyphenyl)-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	FUS		48.41	507.3	DSC	[1999ZIE/GOL]
$C_{17}H_{18}ClNO_2S$	[178870-32-1]	*N*-[4-chloro-3-[(3-methyl-2-butenyl)oxy]phenyl]-2-methyl-3-furancarbothiamide				
	FUS		36.94	400.8	DSC	[2001DAM/BLA]
$C_{17}H_{18}FNO_2$	[164591-98-4]	4-*trans*-(3-fluoro-4-cyanophenyl)cyclohexyl-(*E*)-but-2-enoate				
	FUS		21.1	393.2	DTA	[1995KEL/SCH]
$C_{17}H_{18}FN_3O_3$	[85721-33-1]	1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid (ciprofloxacin)				
	FUS		64.48	541.5	DSC	[1994YU/ZIP]
$C_{17}H_{18}N_2O_3S$	[479578-81-9]	4-methoxy-*N*-[[[(3-methoxyphenyl)methyl]amino]thioxomethyl]benzamide				
	FUS		31.02	389.2	DSC	[2002ABB/WOH]
$C_{17}H_{18}N_2O_6$	[21829-25-4]	1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-3,5-pyridinedicarboxylic acid dimethyl ester (nifedipine)				
	FUS		38.1	446.1	DSC	[2015NUR/BOO]
	FUS		37.6	446.6	DSC	[2015KUM/THI]
	FUS		38.19	446	DSC	[2010BAI/VAN]
	FUS (I)		36.0	444.2		
	FUS (II)		24.2	435.2	DSC	[2007GRO/DEV, 2011GRO/LIE]
	FUS		39.9	445.3	DSC	[2006MAR/KON]
	FUS		36.6	445.3	DSC	[2004MAR/KOZ]
	FUS		38.0	449.2	DSC	[1997SQU/NEE]
$C_{17}H_{18}N_4O_5$	[3846-49-9]	*N*, *N*′-diethyl-*N*, *N*′-bis(4-nitropheny)urea (4,4′-dinitroethylcentralite)				
	FUS		35.60	420.5	DSC	[2010MEK/KHI]
$C_{17}H_{18}O_3$	[15131-43-8]	2-hydroxy-4-butoxybenzophenone				
	V	(393–443)	92.7	418	ME	[1984SUR]
$C_{17}H_{18}O_3$	[87-18–3]	4-*tert*-butylphenyl salicylate				
	SUB	(293–336)	137.4	308	A	[1987STE/MAL]
	V	(336–438)	90.4	351	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{17}H_{18}O_4$	[101595-31-7]	2-hydroxy-4,4′-diethoxybenzophenone				
	FUS		34.7	373.6	DSC	[1999PRI/HAW]
	SUB		134.9		B	[1999PRI/HAW]
	V		100.2		TGA	[1999PRI/HAW]
$C_{17}H_{18}O_4$		2-oxopropyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		32.4	355.2	DSC	[1994WEB/MEY]
$C_{17}H_{18}O_4S$	[313057-14-6]	4-(4-pentenyloxy)phenyl 5-methoxy-2-thiophene carboxylate				
	FUS		74.48	333.7	DSC	[2000WU/WAN]
$C_{17}H_{18}O_8P_2$	[55120-33-7]	3,9-diphenoxy-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane-3,9-dioxide				
	FUS		36.46	469.58	DSC	[2010GUO/WAN2]
$C_{17}H_{19}F_3O_3$	[164591-97-3]	4-*trans*-(trifluoromethoxyphenyl)cyclohexyl-(*E*)-but-2-enoate				
	FUS		21.6	340.2	DTA	[1995KEL/SCH]
$C_{17}H_{19}NO_3$	[57-27-2]	7,8-didehydro-4,5-epoxy-17-methylmorphinan-3,6-diol (morphine)				
	FUS		42.23	529/7	DSC	[2015MUS/MAT]
	FUS		28.87	528.2	DTA	[1988ROY/FLY]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{17}H_{19}NO_3$	[466-99-9]	hydromorphone				
	FUS		38.53	531.8	DSC	[2015MUS/MAT]
$C_{17}H_{19}NO_3$	[94-62-2]	(*E*,*E*)-1-piperoylpiperidine (piperine)				
	FUS (I)		31.38	405.7		
	FUS (II)		25.10	401.2		
	FUS (III)		24.69	389.7	DSC	[2015PFU/CHA]
$C_{17}H_{19}NO_4$	[72490-01-8]	*N*-[2-(4-phenoxyphenoxy)ethyl]carbamic acid, ethyl ester (fenoxycarb)				
	FUS		28.46	326.7	DSC	[2013KUH/SVA]
	FUS	(79–360)	26.98	326.3	AC	[2005SUN/LIU4]
$C_{17}H_{19}NO_4$	[76-41-5]	Oxymorphone				
	FUS		25.01	518.3	DSC	[2015MUS/MAT]
$C_{17}H_{19}N_3O_3$	[850836-67-8]	6-(acetylamino)-2-cyano-l(2*H*)-quinolinecarboxylic acid, 2-methylpropyl ester				
	FUS		19.83	404.6	DSC	[2005LIZ/ZAB]
$C_{17}H_{19}N_3O_3$	[191979-20-1]	6-(acetylamino)-2-cyano-l(2*H*)-quinolinecarboxylic acid, butyl ester				
	FUS		36.44	436.1	DSC	[2005LIZ/ZAB]
$C_{17}H_{20}N_2O$	[85-98-3]	*N*,*N*′-diethyl-*N*, *N*′-diphenylurea (ethyl centralite)				
	FUS		33.54	345.0	DSC	[2010MEK/KHI, 2013TRA/KHI]
$C_{17}H_{20}N_2O_2S$	[373642-58-1]	*N*,*N*′-bis[(3-methoxyphenyl)methyl]thiourea				
	FUS		33.22	354.7	DSC	[2002ABB/WOH]
$C_{17}H_{20}O_2$	[6397-77-9]	Diethoxydiphenylmethane				
	FUS		19.9	323.2		[1998VER/PEN]
	SUB		97.1 ± 1.1	298		[1998VER/PEN]
$C_{17}H_{20}O_3$		Propyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		25.3	327.1	DSC	[1994WEB/MEY]
$C_{17}H_{20}O_3$		1-methylethyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		26.0	338.3	DSC	[1994WEB/MEY]
$C_{17}H_{20}O_4$		3-hydroxypropyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		17.9	320.8	DSC	[1994WEB/MEY]
$C_{17}H_{20}O_4$		2-hydroxypropyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		26.6	341.5	DSC	[1994WEB/MEY]
$C_{17}H_{20}O_5$		2,3-dihydroxypropyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		29.0	343.9	DSC	[1994WEB/MEY]
$C_{17}H_{21}ClO_4$	[104225-37-8]	3-(3-chloro-4-methoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		29.1	440.2	DSC	[1992TER/PAU]
$C_{17}H_{21}F_{15}$	[139277-00-2]	1,1,1,2,3,3,4,4,5,5,6,6-dodecafluoro-2-(trifluoromethyl)hexadecane				
	TRS		3.0	220		
	FUS		18.0	261	DSC	[1992HOP/MOL]
$C_{17}H_{21}N$	[156-08-1]	(*S*)-benzphetamine				
	V		77.2 ± 0.7	298	CGC	[2014GOB/VIK]
$C_{17}H_{21}NO_2$	[15299-99-7]	*N*, *N*-diethyl-2-(1-naphthyloxy)propionamide				
	FUS		24.57	345.3	DSC	[1990DON/DRE]
$C_{17}H_{21}NO_3$	[509-60-4]	4,5-epoxy-3-hydroxy-17-methylmorphinan-6-one (hydromorphone)				
	FUS		35.61	539.2	DSC	[1988ROY/FLY]
$C_{17}H_{21}NO_3$	[41340-25-4]	2-[(1*RS*)-1,8-diethyl-1,3,4,9-tetrahydropyrano[3,4*b*]-indol-1-yl]acetic acid (etodolac)				
	FUS		26.2	426.9	DSC	[2014RAT/DES]
$C_{17}H_{21}NO_4$	[50-36-2]	Cocaine				
	SUB		127.2		GS	[1996ZIE/EIK]
	SUB	(294–314)	112.3 ± 2.8	304	GS	[1984LAW/ELI]
$C_{17}H_{21}NO_6$	[146607-85-4]	3-(3-nitro-4-methoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		32.36	426.9	DSC	[1992TER/PAU]
$C_{17}H_{21}N_3O_2$	[3771-38-8]	2,2′-[[3-methyl-4-(phenylazo)phenyl]imino]bisethanol				
	FUS		31.9	384.2		[1988BAU/PER]
$C_{17}H_{22}N_2OS$	[1383254-27-0]	1-[4-(1-thia-3-azaspiro[5.5]undec-2-en-2-ylamino)phenyl]ethanone				
	FUS		32.5	436.6	DSC	[2012BLO/OLK, 2013OLK/BLO]
	SUB	(373–397)	151.6 ± 1.4	385	GS	[2013OLK/BLO]
	SUB	(373–397)	156.0 ± 1.4	298	GS	[2013OLK/BLO]
$C_{17}H_{22}N_2O_6$	[76035-96-6]	(*l*)-menthyl 3,5-dinitrobenzoate				
	FUS		34.4	427.2	DTA	[1981CHI/GAR]
$C_{17}H_{22}N_2O_6$	[80124-31-8]	(*dl*)-menthyl 3,5-dinitrobenzoate				
	FUS		30.6	401.2	DTA	[1981CHI/GAR]
$C_{17}H_{22}O_3$	[115969-40-9]	3-(4-methylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		30.07	468.2	DSC	[1993TER/BOU]
$C_{17}H_{22}O_3S$	[145918-70-3]	*p*-(1*R*, 3*S*)-3-thianisoyl-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		23.56	393.7	DSC	[1994TER/CAS, 1993RAM/BOU]
$C_{17}H_{23}NO_2S$	[56432-99-6]	*N*-adamantan-1-yl-4-methylbenzenesulfonamide				
	FUS		25.9	437.8	DSC	[2016PER/VOL]
	SUB	(387–418)	148.1 ± 1.3	402	GS	[2016PER/VOL]
	SUB	(387–418)	154.4 ± 1.3	298	GS	[2016PER/VOL]
$C_{17}H_{23}NO_3$	[172589-28-5]	3-[(hydroxyimino)phenylmethyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	FUS		33.8	422	DSC	[1995NUR/LEL]
$C_{17}H_{23}NO_3$	[51-55-8]	α-(hydroxymethyl)-benzene acetic acid, (3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester (atropine)				
	FUS		35.5	388.5	DSC	[2009DOM/POB]
$C_{17}H_{23}NO_4$	[146607-86-5]	3-(4-methoxy-3-aminobenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		41.32	498.6	DSC	[1992TER/PAU]
$C_{17}H_{24}N_2S$	[1383254-25-8]	*N*-(4-ethylphenyl)-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		42.82	412.5	DSC	[2012BLO/OLK]
	SUB	(366–394)	138.3 ± 1.8	380	GS	[2012OLK/SHA]
	V		120.2	298	Sub–Fus	[2012OLK/SHA]
$C_{17}H_{24}O_2$	[6284-35-1]	Methyl benzoate				
	V	(396–574)	69.9	411	A	[1987STE/MAL, 1947STU]
$C_{17}H_{25}N$	[77-10-1]	1-(1-phenylcyclohexy)piperdine (angel dust)				
	V		77.6 ± 2.1	298	CGC	[2016GOB/WAL]
$C_{17}H_{26}C_1N$	[106650-56-0]	1-(4-chlorophenyl)-*N*, *N*-dimethyl-α-(2-methylpropyl)cyclobutanemethanamine ((±)-sibutramine)				
	FUS		0.0608	328.0	DSC	[2013ACE/VAZ]
[Note: The authors report a numerical value of 60.8 J/mol, which is clearly too small. The units are likely wrong.]						
$C_{17}H_{26}N_2O$	[84057-95-4]	*N*-(2,6-dimethylphenyl)-1-propyl-2-piperidinecarboxamide				
	FUS		44.5	414.2	DSC	[1997NEM/ACS]
$C_{17}H_{26}O_3$	[79785-46-9]	3-decyloxybenzoic acid				
	FUS		33.88	345.1	DSC	[2001LAI/LEE]
$C_{17}H_{27}NO_2$	[93413-69-5]	1-[2-(dimethylamino)-1 -(4-methoxyphenyl)ethyl] cyclohexanol (venlafaxine)				
	FUS (I)		27.2	348.1	DSC	
	FUS (II)		26.4	349.7	DSC	
	FUS (III)		24.4	351.3	DSC	[2009VAN/WES]
$C_{17}H_{27}NO_4$	[42200-33-9]	5-[3-[(1,1-dimethylethyl)ammo]-2-hydroxypropoxy]-1,2,3,4-tetrahydro-2,3-naphthalenediol (nadolol)				
	FUS		53.0	403.4	DSA	[2010DOM/POB]
$C_{17}H_{27}N_3O_3$	[83963-52-4]	1-decyl-3-(4-nitrophenyl) urea				
	FUS		37.92	390.6	DSC	[1993TIE/FRA]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{17}H_{28}$	[6742-54-7]	Undecylbenzene				
	V	(313–364)	82.4 ± 0.4	298	GS	[2006VER]
	V	(450–622)	66.7	465		[1999DYK/SVO]
	V		84.7	298		[1971WIL/ZWO]
$C_{17}H_{28}N_2OS$	[373642-33-2]	*N*-[(3-methoxyphenyl)methyl]-*N′*-octylthiourea				
	FUS		37.94	350.7	DSC	[2002ABB/WOH]
$C_{17}H_{28}O$	[56103-67-4]	4-methyl-2,6-di-*tert*-pentylphenol				
	V	(438–556)	65.9	453	A	[1987STE/MAL]
$C_{17}H_{28}O_2$	[55095-35-7]	1,3-dimethoxy-2-nonylbenzene				
	V	(443–509)	79.2	458	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{17}H_{28}O_4$	[3220-58-4]	Dicyclohexyl glutarate				
	V	(341–370)	101.1 ± 0.8	298	GS	[2008LIP/KRA]
$C_{17}H_{30}O_2$	[65733-18-8]	*S*-(+)-ethyl-(2*E*,4*E*)-3,7,11-trimethyl-2,4-dodecadienoate				
	V		92.4 ± 3.6	298	CGC	[2016GOO/HAS]
$C_{17}H_{30}O_4$	[23405-96-1]	Dodecyl itaconate				
	FUS		57.2	347.8	DSC	[2016RIC/DEL]
$C_{17}H_{32}$	[26186-00-5]	1-heptadecyne				
	V	(438–607)	62.7	453		[1999DYK/SVO]
$C_{17}H_{32}$	[61847-96-9]	2-heptadecyne				
	V	(446–619)	63.7	461		[1999DYK/SVO]
$C_{17}H_{32}$	[61886-63-3]	3-heptadecyne				
	V	(438–607)	62.5	453		[1999DYK/SVO]
$C_{17}H_{32}Cl_4$	[93479-16-4]	1,1,1,17-tetrachloroheptadecane				
	V	(351–418)	108	366	A	[1987STE/MAL, 1960MAL/MAL]
$C_{17}H_{32}O$	[3661-77-6]	Cycloheptadecanone				
	SUB		75.7			[1938WOL/WEG, 1960JON, 1970COX/PIL]
$C_{17}H_{32}O_2$	[5637-97-8]	Oxa-2-cyclotetradecanone				
	V	(403–463)	73.5	418	A	[1987STE/MAL]
$C_{17}H_{32}O_2$	[21643-42-5]	Tetradecyl acrylate				
	V	(458–601)	69.4	473	A	[1987STE/MAL]
$C_{17}H_{32}O_2$	[35835-77-9]	(*Z*)-9-pentadecenyl acetate				
	V	(363–408)	93.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[64437-41-8]	(*E*)-9-pentadecenyl acetate				
	V	(363–408)	94.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[64437-43-0]	(*Z*)-10-pentadecenyl acetate				
	V	(363–408)	94.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[64437-45-2]	(*E*)-10-pentadecenyl acetate				
	V	(363–408)	94.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[35153-25-4]	(*Z*)-11-pentadecenyl acetate				
	V	(363–408)	94.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[40535-40-8]	(*E*)-11-pentadecenyl acetate				
	V	(363–408)	94.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[70711-45-4]	(*Z*)-12-pentadecenyl acetate				
	V	(363–408)	95.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[73304-17-3]	(*E*)-12-pentadecenyl acetate				
	V	(363–408)	94.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[70711-46-5]	(*Z*)-13-pentadecenyl acetate				

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(363–408)	95.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[39639-20-8]	(*E*)-13-pentadecenyl acetate				
	V	(363–408)	95.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{17}H_{32}O_2$	[1120-25-8]	Methyl-(*Z*)-9-hexadecenoate				
	V		96.4 ± 0.7	298	CGC	[2007LIP/KAP]
$C_{17}H_{32}O_2$	[75190-82-8]	Methyl-(*Z*)-10-heptadecenoate				
	V		100.8	298	CGC	[2007LIP/KAP]
$C_{17}H_{32}O_3$	[1725-00-4]	1,8-dioxa-9-cyclononadecanone				
	V	(403–463)	77.0	418	A	[1987STE/MAL]
$C_{17}H_{32}O_4$	[2917-73-9]	Dibutyl nonadioate				
	V	(313–450)	88.4	328	A	[1987STE/MAL]
$C_{17}H_{32}O_5$		Nonyl[1-(butoxycarbonyl)ethyl]carbonate				
	V	(420–534)	73.8	435	A	[1987STE/MAL, 1950REH/DIX2]
$C_{17}H_{33}N$	[5399-02-0]	Heptadecanonitrile				
	V	(348–385)	98.9 ± 0.4	298	GS	[2005EME/VER]
	V	(425–620)	81.2	440	A	[1987STE/MAL]
$C_{17}H_{33}NO_2$	[42373-46-6]	*N*-dodecyl-(*DL*)-valine				
	FUS		64.4	364.6	DSC	[1986MIY/MAT]
$C_{17}H_{33}NO_3$	[71448-29-8]	*N*-tetradecanoyl-(*L*)-alanine				
	FUS		52.3	367.1	DSC	[1986MIY/MAT]
$C_{17}H_{33}NO_3$	[35054-70-7]	*N*-dodecanoyl-(*DL*)-valine				
	FUS		33.1	380.1	DSC	[1986MIY/MAT]
$C_{17}H_{33}NO_3$	[155300-71-3]	*N*-(1-oxopentadecyl)glycine				
	TRS + FUS		42.6	394.8	DSC	[2014RED/KRO]
$C_{17}H_{34}$	[5634-30-0]	Dodecylcyclopentane				
	V	(450–619)	68.0	465		[1999DYK/SVO]
	V		85.5	298		[1971WIL/ZWO]
$C_{17}H_{34}$	[54105-66-7]	Undecylcyclohexane				
	V	(450–622)	67.0	465		[1999DYK/SVO]
	V		84.6	298		[1971WIL/ZWO]
$C_{17}H_{34}$	[6765-39-5]	1-heptadecene				
	V	(598–746)	55.5	613		[1999DYK/SVO]
	V	(376–432)	72.3	391	A	[1987STE/MAL]
	V		84.9	298		[1971WIL/ZWO]
$C_{17}H_{34}$	[295-97-6]	Cycloheptadecane				
	SUB		66.1 ± 0.6			[1957VAN, 1970COX/PIL]
$C_{17}H_{34}O$	[2922-51-2]	2-heptadecanone				
	V	(402–593)	77.0	417	A	[1987STE/MAL, 1947STU]
$C_{17}H_{34}O$	[6064-42-2]	7-heptadecanone				
	V		94.5 ± 1.8	298	CGC	[2006PER/CON]
$C_{17}H_{34}O$	[540-08-9]	9-heptadecanone				
	FUS		66.68	323.9	DSC	[1993VIL/HAM]
	V	(439–482)	78.3	454	A, ME	[1987STE/MAL, 1938UBB]
$C_{17}H_{34}O_2$	[112-39-0]	Methyl hexadecanoate (methyl palmitate)				
	FUS		56.17	305.1	DSC	[2016LIS/FAR]
	FUS		50.94	300.61	DSC	[2013BEN/KHI]
	FUS		56.0	305.2	DSC	[2004CHI/ZHA]
	FUS		58.1	302.2	DSC	[2003NIK/MAR]
	FUS		53.8	302.2	DSC	[2003SUP/GOF]
	FUS		U 44.1	302.0	DSC	[1992BAB/HWA2]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		68.16	307.2	DSC	[1993ACR, 1991CHI/BRA]
	FUS		58.72	303.7	AC	[1985ABE/KUR]
	FUS		62.6	302.2		[1936KIN/GAR]
	SUB	(291–301)	152.3 ± 2	296	ME	[1965DAV/KYB, 1987STE/MAL]
	V		101.8 ± 3.1	298	CRT	[2015GOB/CHI]
	V		95.3 ± 4.3	298	CGC	[2015GOB/CHI]
	V		93.4	350	CE	[2002VAN/VAN]
	V		83.3 ± 0.4	397	CE	[2002VAN/VAN]
	V		96.8 ± 0.6	298	CE	[2002VAN/VAN]
	V	(463–523)	96.4	298	GC	[1997KRO/VEL]
	V	(433–473)	93.2	298	CGC	[1995CHI/HOS]
	V	(453–543)	78.2	498	GC	[1993HUS/SAR]
	V	(287–322)	U69.6	302	A	[1987STE/MAL]
	V	(411–543)	82.4	426	A	[1987STE/MAL, 1963ROS/SCH]
	V	(378–445)	82.6	393	MG, OM	[1952SCO/MAC]
	V	(422–475)	71.4	437		[1948BON/ATH]
$C_{17}H_{34}O_2$	[110-27-0]	Isopropyl tetradecanoate				
	V	(413–466)	70.2	428	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{17}H_{34}O_2$	[14303-70-9]	Propyl tetradecanoate				
	V	(420–474)	71.3	435	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{17}H_{34}O_2$	[506-12-7]	Heptadecanoic acid (margaric acid)				
	TRS		7.5	331.2		
	FUS		46.5	333.5	DSC	[2007GBA/NEG, 2008GBA/NEG]
	TRS	(90–345)	7.44	329.2		
	FUS	(90–345)	51.33	334.3	AC	[1996DOM/HEA, 1982SCH/VAN2]
	FUS		51.9	333.0	DSC	[1976BER/BER, 1975BER/LEO]
	TRS		7.3	329.6		
	FUS		51.5	334.4		[1964ADR/DEK]
	SUB	(280–302)	151		TPTD	[2005CHA/ZIE]
	SUB	(291–316)	168		TPTD	[2001CHA/TOB]
[Note: Experimental values based on the TPTD method are often inconsistent values determined using other experimental methods.]						
	V		127.3 ± 9.9	298	CGC	[2013WIL/CHI]
	V	(449–637)	100.7	464	A	[1987STE/MAL]
	V	(357–382)	112.7 ± 2.0	372	ME, TE	[1982DEK/SCH]
$C_{17}H_{34}O_3$	[1323-03-1]	Tetradecyllactate				
	V	(388–608)	86.4	403	A	[1987STE/MAL, 1950REH/DIX]
$C_{17}H_{35}Br$	[3508-00-7]	1-bromoheptadecane				
	V	(472–673)	71.6	487	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{17}H_{35}Cl$	[62016-75-5]	1-chloroheptadecane				
	V		103.6	298		[2006BOL/NER2]
	V	(450–673)	73.2	465	A, E	[1987STE/MAL, 1970DYK/VAN, 1961LI/ROS]
$C_{17}H_{35}F$	[1545-17-1]	1-fluoroheptadecane				
	V	(437–623)	68.4	452	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{17}H_{35}I$	[26825-83-2]	1-iodoheptadecane				
	V	(517–673)	104.7	298	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(517–673)	73.0	532	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{17}H_{35}NO$	[7388-58-1]	*N*-methyl hexadecanamide				
	SUB	(345–355)	144.5 ± 0.8	350	ME	[1959DAV/JON, 1987STE/MAL]
$C_{17}H_{35}NO_2$	[96945-44-7]	*N*-tetradecyllactamide				
	V	(413–491)	107.5	428	A	[1987STE/MAL, 1950RAT]
$C_{17}H_{36}$	[629-78-7]	Heptadecane				
	TRS		9.64	282.0		

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		39.68	294.5	DSC	[2015VEL/ORT]
	TRS		13.0	284.3		
	FUS		41.5	294.7	DSC	[2005HUA/SIM]
	TRS		10.8			
	FUS		39.4		DSC	[2005ESP/WHI]
	TRS		10.8	284.2		
	FUS		39.4	294.7	DSC	[2004MON/RAJ]
	TRS		10.3	383.9		
	FUS		39.4	294.8	DSC	[1996ROB/ESP]
	FUS		39.4	295.8	DSC	[1992BAB/HWA, 1994BAB/BEN]
	TRS	(12–384)	10.96	284.3		
	FUS	(12–384)	40.17	295.1	AC	[1996DOM/HEA, 1967MES/GUT]
	SUB		125.1	298		[1972MOR3]
	SUB	(288–293)	131.3 ± 13	290	ME	[1949BRA/SHE, 1960JON]
	V		86.5	298		[1994RUZ/MAJ]
	V	(289–320)	91.1	304	A	[1987STE/MAL]
	V	(488–577)	62.9	503	A	[1987STE/MAL]
	V		86.0 ± 0.8	298	C	[1972MOR]
	V		86.2	298		[1971WIL/ZWO]
	V	(445–470)	71.6	457	ME	[1938UBB]
$C_{17}H_{36}$	[1560-92-5]	2-methylhexadecane				
	V	(428–569)	63.5	443	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[6418-43-5]	3-methylhexadecane				
	V	(428–567)	63.4	443	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[25117-26-4]	4-methylhexadecane				
	V	(420–567)	58.7	435	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[25117-34-4]	5-methylhexadecane				
	V	(422–566)	59.8	437	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[2882-97-5]	2,3-dimethylpentadecane				
	V	(424–569)	60.6	439	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[61868-07-3]	2,4-dimethylpentadecane				
	V	(419–546)	65.2	434	A	[1987STE/MAL, 1959TER/BRI]
$C_{17}H_{36}$	[101791-53-1]	2,4,6-trimethyltetradecane				
	V	(411–534)	64.5	426	A	[1987STE/MAL]
$C_{17}H_{36}$	[93816-24-1]	4,4-dipropylundecane				
	V		78.0 ± 1.8	298	CGC	[1995CHI/HES]
$C_{17}H_{36}O$	[1454-85-9]	1-heptadecanol				
	TRS + FUS		63.4	325.3	DSC	[2006NIC/KWE]
	FUS		37.0	326.6	DSC	[2004VEN/CAL]
	FUS	298–368)	63.06	327.3		[2003VAN/VAN]
[Note: The enthalpy of fusion value includes the enthalpy of solid-to-solid transition that occurs at 323.2 K.]						
	TRS		25.2	323.6		
	FUS		37.0	326.6	DSC	[2002VEN/RAM]
	SUB		169.5 ± 2.2			[1965DAV/KYB, 1970COX/PIL]
	V		112.5 ± 0.5	298	CGC	[2006NIC/KWE]
	V	(460–620)	78.3	475	A	[1987STE/MAL]
	V	(473–623)	75.9	488	A	[1987STE/MAL]
$C_{17}H_{36}O$	[103385-34-8]	4-heptadecanol				
	FUS + TRS		35.7	311.5	DSC	[2006NIC/KWE]
$C_{17}H_{36}O$	[112283-13-3]	6-heptadecanol				
	FUS + TRS		49.0	315.8	DSC	[2006NIC/KWE]
	V		108.6 ± 1.0	298	CGC	[2006NIC/KWE]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{17}H_{36}O$	[93658-33-4]	7-heptadecanol				
	FUS + TRS		28.8	314.4	DSC	[2006NIC/KWE]
	V		108.2 ± 0.8	298	CGC	[2006NIC/KWE]
$C_{17}H_{36}O$	[624-08-8]	9-heptadecanol				
	FUS + TRS		43.2	330.2	DSC	[2006NIC/KWE]
	V		108.5 ± 0.4	298	CGC	[2006NIC/KWE]
$C_{17}H_{36}O_2$	[66577-59-1]	1,17-heptadecanediol				
	TRS		34.9	98.4		
	FUS		30.8	367.3	DSC	[1999OGA/NAK]
$C_{17}H_{36}O_2S$	[79768-75-5]	3-(tetradecylthio)-1,2-propanediol				
	TRS		16.3	302.5		
	FUS		26.8	336.4	DSC	[1993ACR, 1990VAN/VAN]
$C_{17}H_{36}O_3$	[1561-06-4]	3-(tetradecyloxy)-1,2-propanediol				
	FUS		62.1	331.3	DSC	[1993ACR, 1990VAN/VAN]
$C_{17}H_{36}S$	[53193-22-9]	1-heptadecanethiol				
	V	(481–657)	74.6	496		[1999DYK/SVO]
$C_{17}H_{37}N$	[4200-95-7]	Heptadecylamine				
	V	(522–636)	68.2	537	A	[1987STE/MAL, 1956MAN2]
$C_{17}H_{37}NO_2$	[111953-19-6]	3-(tetradecylamino)-1,2-propanediol				
	FUS		64.9	356.2	DSC	[1993ACR, 1990VAN/VAN]
$C_{18}D_{12}$	[1719-03-5]	Chrysene-d_{12}				
	V		106	298	CGC	[2008ZHA/UNH]
$C_{18}D_{14}$	[1718-51-0]	*p*-terphenyl - d_{14}				
	V		101.6	298	CGC	[2008ZHA/UNH]
	V		99.5 ± 4.4	298	CGC	[2008HAN/NUT]
$C_{18}F_{15}P$	[1259-35-4]	Tris(pentafluorophenyl)phosphene				
	FUS		22.1	380.0	DSC	[2008ZEL/CHU]
$C_{18}H_{10}$	[65513-20-4]	Benzo[3,4]cyclobuta[1,2-a]biphenylene & ([3]phenylene)				
	SUB		115.1 ± 0.8			[2000BEC/FAU]
$C_{18}H_{10}$	[203-12-3]	Benzo[*ghi*]fluoranthene				
	TRS		5.35	402.8		
	TRS		0.88	402.1		
	TRS		0.44	352.7		
	FUS		11.8	424		[1980SMI]
$C_{18}H_{10}BrNO_3$	[10319-14-9]	2(4-bromo-3-hydroxy-2-quinolinyl)-1*H*-indene-1,3(2*H*)-dione (C. I. disperse yellow 64)				
	SUB	(483–523)	130.6	498	A	[1987STE/MAL]
$C_{18}H_{10}Br_2$	[131222-99-6]	6,12-dibromochrysene				
	FUS		23.81	543.2	DSC	[2012FU/SUU]
	SUB	(409–465)	141.1 ± 3.2	437	ME	[2012FU/SUU]
$C_{18}H_{10}Cl_2O_2S_2$	[2379-74-0]	6-chloro-2-(6-chloro-4-methyl-3-oxobenzo[*b*]thien-2(3*H*)-ylidine)-4-methyl-benzo[*b*]thiophen-3(2*H*)- one (C.I. Vat Red 1)				
	SUB	(519–634)	148	577	GS	[1986NIS/AND]
$C_{18}H_{10}Cl_2O_2S_2$	[5462-29-3]	5-chloro-2-(5-chloro-7-methyl-3-oxobenzo[*b*]thien-2(3*H*)-ylidine)-7-methyl-benzo[*b*]thiophen-3(2*H*)- one (C.I. Vat Violet 2)				
	SUB	(519–634)	93.0	577	GS	[1986NIS/AND]
$C_{18}H_{10}N_2$	[22318-90-7]	(5E,11E)-dibenzo[*a*, *e*]cyclooctene-5,11-dicarbonitrile				
	FUS		31.1	463.7	DSC	[2011PER/CON]
$C_{18}H_{10}O_2$	[2498-66-0]	1,2-benzanthra-9,10-quinone				
	SUB		82.8 ± 4.0			[1956MAG, 1970COX/PIL]
$C_{18}H_{10}O_2$	[1090-13-7]	5,12-tetracenequinone				

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		108.8 ± 5.0			[1956MAG, 1970COX/PIL]
$C_{18}H_{10}O_4$	[1785-52-0]	6,11-dihydroxy-5,12-naphthacenedione				
	SUB	(426–446)	144.2 ± 1.4	436	ME	[1998OJA/SUU]
$C_{18}H_{11}Br$	[32795-84-9]	7-bromobenz [*a*]anthracene				
	FUS		23.64	425.7	DSC	[2012FU/SUU]
	SUB	(358–419)	123.2 ± 1.3	388	ME	[2012FU/SUU]
$C_{18}H_{11}NO_2$	[7496-02-8]	6-nitrochrysene				
	FUS		28.4	486.6	DSC	[2010KES/AUC]
$C_{18}H_{11}NO_3$	[7576-65-0]	2-(3-hydroxy-2-quinolinylidene)-indeno-1,3-dione (Disperse yellow 54)				
	FUS		30.89	539.2		[1991BAU/WEB]
	SUB		125.2 ± 0.4		LE	[1998PRI/HAW]
	SUB	(483–513)	139	498		[1973MCD]
$C_{18}H_{12}$	[92-24-0]	Naphthacene (tetracene)				
	SUB	(399–430)	124.8 ± 2.6		ME	[2009OJA/CHE]
	SUB	(386–472)	126.1 ± 9.0	429	ME	[1998OJA/SUU]
	SUB	(313–453)	126.5	383	GS	[1995NAS/LEN]
	SUB	(419–446)	143.7 ± 0.5	298	TE, ME	[1980DEK, 1967WAK/INO, 1977PED/RYL]
	SUB		124.7 ± 4	422	ME	[1970COX/PIL]
	SUB	(433–493)	128.8	473	HSA	[1965MOR]
	SUB	(433–483)	132.6	468	HSA	[1964FIE/MAC, 1952INO/SHI]
	SUB		117.2	459	ME	[1960JON]
	SUB		U92.0	384	ME	[1951INO]
	SUB		124.3			[1951MAG/HAR, 1960JON]
	V		106.2 ± 3.7	298	CGC	[2008HAN/NUT]
$C_{18}H_{12}$	[56-55-3]	Benz[*a*]anthracene				
	FUS		20.1	433.5	DSC	[2010KES/AUC]
	FUS		23.49	434.3	DSC	[2008MOG/SEP]
	FUS		22.3	431.2	DSC	[1995HAI/SAN]
	FUS		21.38	434.3	DSC	[1991ACR, 1973CAS/VEC]
	SUB	(313–453)	115.5	383	GS	[1995NAS/LEN]
	SUB	(330–390)	113.4	345	ME	[1987STE/MAL, 1974MUR/POL]
	SUB		104 ± 2	351	TE	[1983FER/IMP]
	SUB	(283–323)	U 81.3 ± 2.5	303	GS	[1983SON/ZOL]
	SUB	(373–396)	123.3 ± 3	298	TE, ME	[1980DEK]
	SUB	(357–454)	120.5	405	ME	[1967WAK/INO, 1964KEL/RIC]
	SUB	(377–403)	104.6 ± 4.2	390	ME	[1987STE/MAL]
	SUB	(333–393)	119.7	363		[1958HOY/PEP]
	SUB		U 109.2			[1951MAG/HAR, 1960JON]
	V		105.8 ± 1.9	298	CGC	[2008HAN/NUT]
	V	(463–525)	96.6 ± 1.4	298	GC	[2006HAF/PAR]
	V	(343–453)	91.0	398	GC	[1990HIN/BID2]
$C_{18}H_{12}$	[217-59-4]	Triphenylene				
	FUS		23.0	471.2	DSC	[2010KES/AUC]
	FUS		24.19	471.1	DTA	[1992SAB/ELW3, 1996DOM/HEA]
	FUS	(5–509)	24.74	471	AC	[1971WON/WES]
	SUB	(368–399)	124.8 ± 2.9		ME	[2008GOL/SUU3]
	SUB	(313–453)	114.5	383	GS	[1995NAS/LEN]
	SUB	(381–406)	126.5 ± 4	298	TE, ME	[1980DEK]
	SUB	(363–468)	107.6	378	A	[1987STE/MAL, 1958HOY/PEP]
	SUB	(338–398)	118 ± 4	368		[1970COX/PIL]
	SUB		107.1	425	ME	[1967WAK/INO]
	V		106.1 ± 3.9	298	CGC	[2008HAN/NUT]
	V	(323–473)	88.5	398	GC	[2002LEI/CHA]
	V	(535–768)	67.7	550		[1999DYK/SVO]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{12}$	[218-01-9]	Chrysene (benzo[*a*]phenanthrene)				
	FUS		23.3	525.3	DSC	[2011RIC/FU]
	FUS		23.6	527	DSC	[2010KES/AUC]
	FUS		28.08	539.5	DSC	[2008MOG/SEP]
	TRS		3.22	512.2		
	FUS		26.15	531.4	DSC	[1973CAS/VEC]
	TRS		3.6	503	C	[1969RIN/DAM]
	SUB	(372–409)	109.9 ± 3.6	390	ME	[2008GOL/SUU3]
	SUB	(313–453)	118.8	383	GS	[1995NAS/LEN]
	SUB		131 ± 4	298	TE, ME	[1980DEK, 1967WAK/INO]
	SUB		117.6 ± 4	400	ME	[1970COX/PIL]
	SUB	(353–418)	121.4	385		[1958HOY/PEP, 1951MAG/HAR]
	SUB		117.6			[1960JON]
	V		106.2	298	CGC	[2008ZHA/UNH]
	V	(463–513)	97.0 ± 1.4	298	GC	[2006HAF/PAR]
	V	(323–473)	89.6	398	GC	[2002LEI/CHA]
$C_{18}H_{12}$	[195-19-7]	Benzo[*c*]phenanthrene (3,4-benzophenanthrene)				
	FUS		15.5	339.2	DSC	[2010KES/AUC, 1991ACR]
	FUS		16.32	334.7	DSC	[1973CAS/VEC, 1951MAG/HAR, 1970COX/PIL]
	SUB		106.3 ± 4.2			[1967WAK/INO]
$C_{18}H_{12}F_2$	[72864-01-8]	4,4′-difluoro-*p*-terphenyl				
	TRS	(8–303)	0.18	127	AC	[1993SAI/YAM, 1995YAM/SAI]
$C_{18}H_{12}N_2$	[119-91-5]	2,2′-biquinoline				
	SUB	(393–411)	129.5 ± 0.8	402	ME	[1997RIB/MAT3]
	SUB	(393–411)	134.7 ± 1.3	298	ME	[1997RIB/MAT3]
	SUB		96.6 ± 0.9			[1985SKI/PIL]
$C_{18}H_{12}N_3O_6P_3$	[311-03-5]	Tris(*o*-phenylenedioxy)cyclotriphosphazene				
	FUS		42.56	522.2	DSC	[2011TIA/WAN]
$C_{18}H_{12}O$	[10435-67-3]	2-phenylindeno[2,1-b]pyran				
	SUB	(394–424)	132.8	409	A	[1987STE/MAL, 1966GEI/QUI]
$C_{18}H_{12}O_3$	[568-73-0]	1,6-dimethylphenanthro[1,2-b]furan-10,11-dione				
	FUS		22.09	495.4	DSC	[1988HUA/TAN]
$C_{18}H_{13}ClN_2O_3$	[191979-26-7]	2-cyano-6-methoxy-1(2H)-quinolinecarboxylic acid, 4-chlorophenyl ester				
	FUS		22.35	374.2	DSC	[2005LIZ/ZAB]
$C_{18}H_{13}FO$	[145532-14-5]	4-ethoxy-4′-fluorodiphenyldiacetylene				
	FUS		33.9	400.2	DSC	[1993JUA/CHE]
$C_{18}H_{13}F_{25}$	[89109-70-6]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorooctadecane				
	TRS		3.3	317.2		
	FUS		21.8	352.2	DSC	[1986RUS/RAB]
$C_{18}H_{13}O_4P$	[99208-50-1]	2-(6-oxido-6*H*-dibenz[*c*,*e*][1,2]oxaphosphorin-6-yl)-1,4-dihydroxyphenylene				
	FUS		41.7	524.1	DSC	[2008FAN/WAN]
$C_{18}H_{14}$	[84-15-1]	*o*-terphenyl				
	FUS		17.0	329.4	DSC	[2013ROD/ROC]
	FUS		16.9	327.8	DSC	[1997VER2]
	FUS		17.2	328.4	DSC	[1995MUR/PAI]
	FUS		17.2	329.4	AC	[1972CHA/BES]
	SUB	(312–328)	102.3 ± 0.4	320	ME	[2008RIB/SAN6]
	SUB	(312–328)	103.0 ± 0.4	298	ME	[2008RIB/SAN6]
	SUB		97 ± 1	298	B	[1979KIM/TAK]
	V	(335–368)	81.0 ± 0.4	352	GS	[1997VER2]
	V	(335–368)	84.2 ± 0.4	298	GS	[1997VER2]
	V	(576–786)	60.5	591	DSC	[1996BAC/GRZ]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(343–462)	77.6	403		[1989SAS/NGU]
	V	(462–650)	68.5	477	A	[1987STE/MAL]
$C_{18}H_{14}$	[92-06-8]	*m*-terphenyl				
	FUS		25.5	361.8	DSC	[2013ROD/ROC]
	FUS		31.0	361.2	DSC	[1997VER2]
	FUS		22.59	360	DSC	[1971KAM/MIT]
	SUB	(337–359)	117.0 ± 0.5	348	ME	[2008RIB/SAN6]
	SUB	(337–359)	118.6 ± 0.7	298	ME	[2008RIB/SAN6]
	SUB	(329–353)	115.5 ± 1.6	341	GS	[1997VER2]
	SUB	(329–353)	118.1 ± 1.6	298	GS	[1997VER2]
	SUB		120 ± 1	298		[1979KIM/TAK]
	SUB	(313–363)	119	338	VP	[1958HOY/PEP]
	V		97.2 ± 0.3	298	CGC	[2001PUR/CHI]
	V	(462–691)	76.1	477	A	[1987STE/MAL]
$C_{18}H_{14}$	[92-94-4]	*p*-terphenyl				
	FUS		32.9	490.9	DSC	[2013ROD/ROC]
	FUS		35.3	482.4	DSC	[1997VER2]
	TRS	(4–298)	0.3	193.5	AC	[1988SAI/ATA]
	TRS	(4–370)	0.33	193.5	AC	[1983CHA]
	FUS	(320–580)	35.3	487	DSC	[1983CHA]
	FUS		41.6	493.1	DSC	[1982WAS/RAD]
	FUS		35.5	486.3		[1991ACR, 1979SMI2]
	SUB	(373–395)	122.6 ± 0.3	384	ME	[2008RIB/SAN6]
	SUB	(373–395)	125.6 ± 0.8	298	ME	[2008RIB/SAN6]
	SUB	(353–383)	116.2 ± 2.4	368	GS	[1997VER2]
	SUB	(353–383)	120.4 ± 2.4	298	GS	[1997VER2]
	SUB		113 ± 2	298	B	[1979KIM/TAK]
	SUB		118.4	397	ME	[1967WAK/INO]
	SUB	(333–393)	120.6	363	VP	[1958HOY/PEP]
	V		101.7	298	CGC	[2008ZHA/UNH]
	V	(323–473)	79.2	398	GC	[2002LEI/CHA]
	V	(499–700)	79.2	514	A	[1987STE/MAL]
$C_{18}H_{14}$	[959-02-4]	5,12-dihydro tetracene				
	SUB	(338–398)	115.9 ± 4	368		[1958HOY/PEP, 1970COX/PIL]
	SUB		120.5			[1951MAG/HAR, 1960JON]
$C_{18}H_{14}$	[2175-90-8]	Diphenylfulvene				
	SUB		104.6 ± 8.3		E	[1957DAY/OES, 1970COX/PIL]
$C_{18}H_{14}C_{14}N_2O$	[22916-47-8]	(*RS*)-1-(2-(2,4-dichlorobenzyloxy)-2-(2,4-dichlorophenyl)ethyl)-1H-imidazole (miconazole)				
	FUS		32.77	359	DSC	[2010BAI/VAN]
$C_{18}H_{14}F_4N_2O_4S$	[90357-06-5]	(±)-*N*-[4-cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)-sulfonyl]-2-hydroxy-2-methylpropanamide (bicalutamide)				
	FUS		48.59	467.1	DSC	[2015NUR/BOO]
	FUS(monoclinic)		49.5	465.5	DSC	[2011PER/NOR, 2013PER/BLO]
	FUS		53.8	469.2	DSC	[2010AND/ABU]
	FUS (I)		48.3	466.4		
	FUS (II)		42.9	463.8	DSC	[2008NEM/SZT]
	FUS (I)		47.77	465.2		
	FUS (II)		43.04	462.2	DSC	[2006VEG/POL]
	FUS		46.7	468.2	DSC	[2006REN/JIN]
	SUB(monoclinic)	(376–421)	117.1 ± 0.6	398	GS	[2011PER/NOR, 2013PER/BLO]
$C_{18}H_{14}N_2O_2$	[6334-31-2]	1 -benzyoyl-1,2-dihyro-6-methoxy-2-quinolinecarbonitrile				
	FUS		23.11	396	DSC	[2005LIZ/ZAB]
$C_{18}H_{14}N_2O_3$	[191979-24-5]	2-cyano-6-methoxy-1(2*H*)-quinolinecarboxylic acid, phenyl ester				
	FUS		22.88	384	DSC	[2005LIZ/ZAB]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{14}N_40_2$	[21811-64-3]	1,4-bis[(4-hydroxphenyl)azo]benzene				
	V	(473–533)	68.0	488	A	[1987STE/MAL]
$C_{18}H_{14}N_40_5S$	[599-79-1]	2-hydroxy-5-[(*E*)-2-{4-[(pyridin-2-yl)sulfamoyl]phenyl}-diazen-1-yl]benzoic acid (sulfasalazine)				
	FUS		80.59	541.2	DSC	[2015GAU/VAN]
$C_{18}H_{14}0$	[2432-11-3]	2,6-diphenylphenol				
	SUB	(334–363)	116.1 ± 1.1	348	GS	[1998VER5]
	SUB	(334–363)	119.1 ± 1.1	298	GS	[1998VER5]
$C_{18}H_{14}0_3$	[538-56-7]	Cinnamic anhydride				
	FUS		32.77	321.2		[1991ACR, 1983WEA]
$C_{18}H_{14}0_3$	[87205-99-0]	1,2-dihydro-1,6-dimethylphenanthro[1,2-b] furan-10,11-dione				
	FUS		22.22	490.3	DSC	[1988HUA/TAN]
$C_{18}H_{15}C_1N_2O_2S$	[202409-33-4]	5-chloro-6′-methyl-3-[4-(methylsulfonyl)phenyl]-2,3′-bipyridine (etoricoxib)				
	FUS		25.91	408.3	DSC	[2015NUR/BOO]
	FUS		32.3	413.1	DSC	[2011DAS/NAY]
	FUS		30.43	407.1	DSC	[2008TUN/TAB]
$C_{18}H_{15}F_30$	[172424-71-4]	4-butoxy-2′,3′,4′-trifluorodiphenylacetylene				
	FUS		36.0	344.4	DSC	[1995HSU/TSA]
$C_{18}H_{15}N$	[603-34-9]	Triphenylamine				
	FUS		24.89	400.2	DSC	[1993ACR, 1991CHI/BRA]
	SUB	(322–373)	87.9 ± 1.3	337	BG	[1978STE3, 1987STE/MAL]
	V		90.2 ± 1.2	298	CGC	[2010LIP/CHI]
	V	(473–640)	65.2	488	A	[1987STE/MAL, 1949FOR/BOW]
$C_{18}H_{15}NO_2$	[3808-37-5]	9-diacetylaminoanthracene				
	SUB	(399–455)	106.4	414	RG, A	[1958KLO, 1987STE/MAL]
$C_{18}H_{15}OP$	[791-28-6]	Triphenylphosphine oxide				
	FUS		23.4	429.6	DSC	[1989HUI/VAN]
	FUS		24.22	431.9	DSC	[1991ACR, 1988KIR/DOM]
	FUS		23.8	429	DSC	[1978JOR/AIR]
	SUB		131 ± 2	399	ME, TE	[1989HUI/VAN]
	SUB		U66 ± 6	298	B, E	[1978JOR/AIR]
$C_{18}H_{15}O_3P$	[13291-46-8]	(2,5-dihydroxyphenyl)diphenylphosphine oxide				
	FUS		37.26	487.8	DSC	[2010GUO/WAN]
$C_{18}H_{15}O_4P$	[115-86-6]	Triphenyl phosphate				
	FUS	(12–340)	29.61	322.5	AC	[1991ACR, 1986RAB/PET]
	SUB		114.4 ± 2.6	298	B	[1989KIR/DOM]
	V	(383–413)	92.8	398	GC-RT	[2014BRO/JAN]
	V	(548–683)	81.4	563	I, A	[1987STE/MAL, 1957DOB/KEL]
$C_{18}H_{15}P$	[603-35-0]	Triphenylphosphine				
	FUS		19.69	354.4	DSC	[1991ACR, 1988KIR/DOM]
	FUS		19.2	353	C	[1984GRI/KON]
	SUB		113.2 ± 3.0	298		[1988KIR/DOM]
	SUB		109.2 ± 1.1	350	C	[1984GRI/KON]
	SUB	(452–524)	113.2 ± 2.0	298	T	[1984GRI/KON, 1988KIR/DOM]
	SUB		96.2 ± 8.4	298		[1982PIL/SKI, 1960BED/MOR]
	V	(483–660)	71.2	498	A	[1987STE/MAL, 1949FOR/BOW]
	V	(364–392)	91.4 ± 2	378	TE, ME	[1981DEK/HER]
$C_{18}H_{15}PS$	[3878-45-3]	triphenylphosphine sulfide				
	SUB	(388–419)	136.8 ± 6.1	403	HSA	[1996KIR/CHI]
	SUB		142.8 ± 6.8	298	HSA	[1996KIR/CHI]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{16}FNO_2$	[86776-52-5]	4-cyano-3-fluorophenyl 4-butylbenzoate				
	FUS	(5–360)	22.22	288.4	AC	[2012INA/SUZ]
$C_{18}H_{16}F_2$	[109970-65-2]	4-*n*-butyl-3′,4′-difluorodiphenylacetylene				
	FUS		25.3	323.5	DSC	[1995HSU/TSA]
$C_{18}H_{16}NO_3P$	[3848-51-9]	Diphenyl anilinophosphonate				
	FUS		34.87	406.9	DSC	[2015YU/WAN2]
$C_{18}H_{16}N_2O_2$		*meso*-2,3-dimethoxy-2,3-diphenylsuccinonitrile				
	FUS		25.1	469.7		[1983ZAM/KAI]
$C_{18}H_{16}N_2O_2$	[2479-46-1]	1,3-bis(4-aminophenoxy)benzene				
	FUS		0.463	389.2	DSC	[2013ZHA/GAO]
[Note: The authors of [2013ZHA/GAO] reported the enthalpy of fusion in units of J mol^{-1}. We believe that the value is likely 46.3 kJ mol^{-1}].						
$C_{18}H_{16}N_4O$	[1290504-01-6]	5-benzyloxypyridine-2-aldehyde 2′-pyridinylhydrazone				
	FUS		38	433.7	DSC	[2013PER/KAZ]
$C_{18}H_{16}N_4O_3$	[243445-13-8]	2[4,5-dihydro-4-(4-methylphenyl)-5-oxo-3-(2-pyridinyl)-1,2,4-triazine-6(1*H*)-ylidene]acetic acid, methyl ester				
	FUS		42.8	468.3	DSC	[2005SIK/MOD]
$C_{18}H_{16}N_4$	[22119-35-3]	Dihydrodibenzotetra-aza-annulene				
	SUB	(443–583)	8l.5 ± 6.4	513	T	[1983ZVE/MOT]
$C_{18}H_{16}O_2$	[84-47-9]	2-*tert*-butyl-9,10-anthraquinone				
	FUS		19.12	376.2	DSC	[2014JIA/YAN]
	V	(483–523)	101.4	498	A	[1987STE/MAL]
	V		97.7			[1977SAS/FAL]
$C_{18}H_{16}O_3$	[114390-57-7]	1,8-diphenyl-2,3,5-trioxabicyclo[4.3.0]non-7-ene				
	FUS		2l.7	371.2	DSC	[1991JEF/JAB]
$C_{18}H_{16}0_8$	[36063-07-7]	1,2,3,4-tetracarbomethoxynaphthalene				
	FUS		35.9	423.7	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{18}H_{16}O_8$	[68267-09-4]	1,2,4,5-tetracarbomethoxynaphthalene				
	FUS		36.4	438.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{18}H_{16}O_8$	[36063-08-8]	1,2,5,6-tetracarbomethoxynaphthalene				
	FUS		42.1	470.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{18}H_{16}O_8$	[68267-08-3]	1,2,6,7-tetracarbomethoxynaphthalene				
	FUS		34.2	407.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{18}H_{16}O_8$	[56110-97-5]	2,3,6,7-tetracarbomethoxynaphthalene				
	FUS		42.2	458.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{18}H_{16}O_8$	[31996-10-8]	1,4,5,8-tetracarbomethoxynaphthalene				
	FUS		36.1	477.2	DSC	[1993ACR, 1978DOZ/FUJ]
$C_{18}H_{17}Cl_2NO_3$	[22212-55-1]	Ethyl *N*-benzoyl-*N*-(3,4-dichlorophenyl)-(*dl*)-alaninate				
	FUS		27.06	341.7	DSC	[1990DON/DRE]
$C_{18}H_{17}F$	[109970-63-0]	4-*n*-butyl-4′-fluorodiphenylacetylene				
	FUS		18.5	329.9	DSC	[1995HSU/TSA]
$C_{18}H_{17}FO$	[130746-61-1]	4-butoxy-4′-fluorodiphenylacetylene				
	FUS		25.4	346.7	DSC	[1995HSU/TSA]
$C_{18}H_{17}NO_3$	[483362-79-4]	1-[(4-nitrophenyl)ethynyl]-4-butoxybenzene				
	FUS		21.84	374.7	DSC	[2002SPA/DZI]
$C_{18}H_{17}NO_3$	[63610-08-2]	(±)-2-(4-(1-oxoisoindolin-2-yl)phenyl)butanoic acid ((±)-indobufen)				
	FUS		39.4	455.3	DSC	[1995VIG/ZAM]
$C_{18}H_{17}NO_3$	[118289-97-7]	(*S*)-(+)-2-(4-(1-oxoisoindolin-2-yl)phenyl)butanoic acid ((*S*)-indobufen)				
	FUS		33.4	471.9	DSC	[1995VIG/ZAM]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{17}NO_5$	[53902-12-8]	2-[[3-(3,4-dimethoxyphenyl)-1-oxo-2-propenyl]amino]benzoic acid (tranilast)				
	FUS		48.87	486.4	DSC	[2005VOG/COH]
$C_{18}H_{18}$	[18801-00-8]	2-(*tert*-butyl)anthracene				
	V	(323–473)	84.5	398	GC	[2002LEI/CHA]
$C_{18}H_{18}$	[1498-69-7]	9-butylanthracene				
	SUB	(293–313)	108.1	303		[1987STE/MAL, 1964MOR]
	V	(422–492)	77.1	437	A	[1987STE/MAL]
	V	(328–373)	83.9	343	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{18}$	[483-65-8]	1-methyl-7-isopropylphenanthrene				
	FUS		18.03	369		[1996DOM/HEA, 1944EIB]
	V	(539–678)	54.0	554	A	[1987STE/MAL]
$C_{18}H_{18}$	[7396-38-5]	2,4,5,7-tetramethylphenanthrene				
	SUB		114.2 ± 1.7		ME	[1965MCD/KIL, 1970COX/PIL]
$C_{18}H_{18}$	[7343-06-8]	3,4,5,6-tetramethylphenanthrene				
	SUB		133.5 ± 3.8		ME	[1965MCD/KIL, 1970COX/PIL]
$C_{18}H_{18}$ CINS	[113-59-7]	3-(2-chloro-9*H*-thioxanthen-9-ylidene)-*N*,*N*-dimethyl-1-propanamino (2-chlorprothixene)				
	FUS		27.82	370.3	DSC	[1996DOM/HEA, 1983CHA/MAS]
	FUS		28.9	370.5	DSC	[1983MAS/CHA]
$C_{18}H_{18}F_3N_3O_3$	[153168-05-9]	3-{3,5-dimethyl-4-[3-(3-methylisoxazol-5-yl)propoxy]phenyl}-5-trifluoromethyl[1,2,4]oxodiazole (pleconaril)				
	FUS (I)		29.3	336.5		
	FUS (II)		32.7	333.4	DSC	[2004COS/SCH]
$C_{18}H_{18}N_2O_2S$	[1000863-77-3]	*N*,*N*′-bis(4-methylbenzoyl)carbamimidothioic acid, methyl ester				
	FUS		11.06	433.2	DSC	[2009PLA/LIZ]
$C_{18}H_{18}N_2O_4$	[4471-41-4]	*N*,*N*′-di(2-hydroxyethyl)-1,4-diaminoanthraquinone				
	FUS		32.34	521.2		[1988BAU/PER]
$C_{18}H_{18}O_2$	[19672-37-8]	3-diphenylmethyl-2,4-pentanedione				
	FUS		27.02	387.2		[1995NOL/VER]
	SUB	(348–383)	112.8 ± 0.4	366	T	[1995NOL/VER]
$C_{18}H_{18}O_3$	[2314-09-2]	Butyl 9-hydroxy-9*H*-fluorene-9-carboxylate				
	FUS		25.56	343.9	DSC	[1991ACR, 1990DON/DRE]
$C_{18}H_{18}O_4$	[25062-95-7]	2,2′-diphenyl-bi-(1,3-dioxolane-2-yl)				
	FUS		32.1	456.1		[1995VER/DOG]
	SUB	(320–362)	132.8 ± 2.1	341	T	[1995VER/DOG]
$C_{18}H_{18}O_{12}$	[6237-59-8]	Hexamethoxycarbonylbenzene				
	FUS		22.5	463.7	DSC	[1978DOZ/FUJ]
	SUB	(403–422)	140.7 ± 1.1	413	ME	[1995JIM/MEN]
	SUB	(403–422)	154.3 ± 1.2	298	ME	[1995JIM/MEN]
$C_{18}H_{19}BrO$	[556052-88-1]	4-bromo-4′-(5-hexenyloxy)-1,1′-biphenyl				
	TRS		13.8	308.2		
	FUS		16.0	393.9	DSC	[2003WIL/VAN]
$C_{18}H_{19}C1N_4$	[5786-21-0]	8-chloro-11-(4-methyl-1-piperazinyl)-5*H*-dibenzo[*b*,*e*][1,4]diazepine (clozapine)				
	FUS		35.9	457.1	DSC	[2006WAS/HOL]
$C_{18}H_{19}C1_2NO_4$	[72509-76-3]	(±)-ethyl methyl 1,4-dihydro-2,6-dimethyl-4-(2,3-dichlorophenyl)-3,5-pyridine dicarboxylate (felodipine)				
	FUS		32.12	416.0	DSC	[2015NUR/BOO]
	FUS (I)		31.5	417.0		
	FUS (II)		27.6	408.0		
	FUS (III)		29.1	416,9	DSC	[2012SUR/SOL]
	FUS		30.96	420	DSC	[2010BAI/VAN]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		34.8	412.3		[2007BER/WAS]
	FUS		30.8	414.8	DSC	[2006MAR/KON]
	FUS		32.1	416.7	DSC	[2004MAR/KOZ]
	FUS (I)		31.5	417.4		
	FUS (II)		26.7	405.7	DSC	[2001ROL/BUR]
	FUS		35.21	414.9	DSC	[1992SRC/KER]
$C_{18}H_{19}Cl_2NO_4$	[119945-59-4]	(+)-ethyl methyl 1,4-dihydro-2,6-dimethyl-4-(2,3-dichlorophenyl)-3,5-pyridine dicarboxylate(felodipine)				
	FUS		25.4	415.7	DSC	[2001ROL/BUR]
$C_{18}H_{19}N$	[63799-11-1]	(*S*)-4-(2-methylbutyl)-4′-cyanobiphenyl				
	FUS		10.7	276	DSC	[1999MAY/WIT]
[Note: The compound may have phase transitions at lower temperatures.]						
$C_{18}H_{19}NO_4$	[483362-68-1]	2-(4-nitrophenyl)-1-(4-butoxyphenyl)ethanone				
	FUS		24.94	336.1	DSC	[2002SPA/DZI]
$C_{18}H_{19}N_3O$	[99614-02-5]	1,2,3,4-tetrahydro-9-methyl-3-[(2-methyl-1*H*-imidazol-1-yl)methyl]-9*H*-carbazol-4-one (ondanestron)				
	FUS		45.05	493	DSC	[2004DIM/DAL]
$C_{18}H_{20}$	[2913-24-8]	[3.3]para-cyclophane				
	TRS		7.36	332		
	TRS		0.46	351		
	FUS		11.76	377	DSC	[1969SHI/MCN]
	SUB	(322–343)	103.3 ± 1	298	ME	[1969SHI/MCN, 1977PED/RYL]
	SUB	(321–343)	97.8	332	A	[1987STE/MAL, 1969SHI/MCN]
$C_{18}H_{20}$	[115181-05-0]	6-(4-biphenyl)-1-hexene				
	FUS		15.1	274.5	DSC	[1989MAL/KAN]
$C_{18}H_{20}BrN_5O_5$	[191355-38-1]	8-bromo-(*R*)-7-[2-hydroxy-3-(4-acetylamino)-fenoxypropyl]-1,3-dimethylxanthine				
	FUS		37.8	492.2	DSC	[2000DAN/PRO]
$C_{18}H_{20}Cl_2$	[72-56-0]	1,1′-(2,2-dichloroethylidene)bis(4-ethylbenzene)				
	FUS		23.34	331.6	DSC	[1991ACR, 1990DON/DRE]
$C_{18}H_{20}N_2O_2$	[3955-57-5]	*N*,*N*′-bis(salicylaldehydo)tetramethylenediimine				
	FUS		35.54	362.8	DSC	[2004RIB/GON]
	SUB	(349–361)	165.1 ± 3.1	298	ME	[2004RIB/GON]
$C_{18}H_{20}N_2O_4$	[332140-31-5]	Diethyl 2,4,6,8-tetrahydro-4,8-ethanobenzo[1,2-*c*:4,5-*c*′]dipyrrole-1,7-dicarboxylate				
	FUS		18.2	439.3	DSC	[2000UNO/ITO]
$C_{18}H_{20}N_2O_4$	[54946-24-6]	*N*-pentylthalidomide				
	FUS		23.97	378.2	DTA	[2002GOO/LAI]
$C_{18}H_{20}N_2O_6$	[39562-70-4]	3-ethyl-5-methyl-1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylate ((*RS*)- nitrendipine)				
	FUS		39.6	432.6	DSC	[2004MAR/KOZ]
	FUS		41.1	430.7	DSC	[1997BUR/ROL]
$C_{18}H_{20}N_6O_7$	[191355-39-2]	8-nitro-(*R*)-7-[2-hydroxy-3-(4-acetylamino)-fenoxypropyl]-1,3-dimethylxanthine				
	FUS		56.8	481.2	DSC	[2000DAN/PRO]
$C_{18}H_{20}OS$	[556052-90-5]	4′-(5-hexenyloxy)-[1,1′-biphenyl]-4-thiol				
	TRS		11.6	358.4		
	FUS		13.6	384.6	DSC	[2003WIL/VAN]
$C_{18}H_{20}O_2$	[56-53-1]	Diethylstilbestrol				
	FUS		31.76	443.8	DSC	[1990DON/DRE]
$C_{18}H_{20}O_2$	[100923-74-8]	(2-hydroxyl-4,6-dimethylphenyl)-2,4,6-trimethylphenylmethanone				
	FUS		0.84	380.2	DTA	[1989SAL/ABA]
[Note: Reported enthalpy of fusion is too small, and the published enthalpy and entropy of fusion data are internally inconsistent.]						
$C_{18}H_{20}O_4$	[39716-92-2]	2-hydroxy-4-butoxy-4′-methoxybenzophenone				
	FUS		33.7	345.6	DSC	[1999PRI/HAW]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		126.3		B	[1999PRI/HAW]
	V		92.6		TGA	[1999PRI/HAW]
$C_{18}H_{21}F_{17}O$	[210896-33-6]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-(octyloxy)decane				
	TRS		3.76	242.0		
	FUS		38.86	264.7	DSC	[2010ZAG/CON]
$C_{18}H_{21}N$		*N*-benzyl-pivalophenone imine				
	FUS		27.86	339.6	DSC	[1997VER/MOR]
	SUB	(318–336)	107.9 ± 3.3	327	GS	[1997VER/MOR]
	SUB	(318–336)	109.7 ± 3.3	298	GS	[1997VER/MOR]
	V	(341–366)	78.3 ± 0.9	354	GS	[1997VER/MOR]
	V	(341–366)	8l.6 ± 0.9	298	GS	[1997VER/MOR]
$C_{18}H_{21}NO$	[97402-82-9]	(*E*)-*N*-(4-methoxybenzylidene)-4-butylamline				
	SUB		NA			[1989KRE/AZA]
$C_{18}H_{21}NO_3$	[76-57-3]	7,8-didehydro-4,5-epoxy-3-methoxy-17-ethylmorphanan-6-ol (codeine)				
	FUS		24.85	429.6	DSC	[2015MUS/MAT]
	FUS		23.81	430.3		[1995YAN/YIN]
	FUS		18.28	428.2	DTA	[1988ROY/FLY]
$C_{18}H_{21}NO_4$	[76-42-6]	Oxycodone				
	FUS		32.17	495.1	DSC	[2015MUS/MAT]
$C_{18}H_{21}N_3S$	[69186-17-0]	*N*-(diethylaminothiocarbonyl)-*N*′-phenylbenzamidine				
	SUB		159.4 ± 3.3	298	C	[2004RIB/SAN]
$C_{18}H_{21}N_5O_5$	[191355-37-0]	(*R*)-7-[2-hydroxy-3-(4-acetylamino)-fenoxypropyl]-1,3-dimethylxanthine				
	FUS		65.9	477.2	DSC	[2000DAN/PRO]
$C_{18}H_{22}$	[1087-49-6]	l ,6-diphenylhexane				
	V	(293–373)	88.0	308	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{22}$	[109309-32-2]	2,2-di(*p*-tolyl)butane				
	V	(298–473)	85.4	313		[1999DYK/SVO]
$C_{18}H_{22}$		l -*p*-tolyl-(l-*p*-propylphenyl)ethane				
	V	(298–473)	85.4	313		[1999DYK/SVO]
$C_{18}H_{22}$		l -*o*-tolyl-*p*-tolylbutane				
	V	(298–473)	85.4	313		[1999DYK/SVO]
$C_{18}H_{22}$	[1889-67-4]	2,3-dimethyl-2,3-diphenylbutane				
	FUS		25.52	392	DSC	[1983KRA/BEC]
	SUB	(293–348)	96.7 ± 0.8	320		[1983KRA/BEC]
$C_{18}H_{22}FNO_3$	[348098-52-2]	(*R*)-deoxyephedrinium (*S*)-4′-fluoromandelate				
	FUS	FUS	27.9	374.5	DSC	[2001VAL/SMI]
$C_{18}H_{22}FNO_3$	[348098-53-3]	(*R*)-deoxyephedrinium (*R*)-4′-fluoromandelate				
	FUS	FUS	26.6	369.2	DSC	[2001VAL/SMI]
$C_{18}H_{22}FNO_4$	[174966-70-2]	(1*R*, 2*S*)-ephedrinium (*R*)-4′-fluoromandelate				
	FUS		37.5	438.3	DSC	[2001VAL/SMI]
$C_{18}H_{22}FNO_4$	[174966-62-2]	(1*R*, 2*S*)-ephedrinium (*S*)-4′-fluoromandelate				
	FUS		24.5	380.4	DSC	[2001VAL/SMI]
$C_{18}H_{22}NO_3P$	[6372-21-0]	Cyclohexylphosphoramidic acid, diphenyl ester				
	FUS		27.57	381.7	DSC	[2015ZHA/DU]
$C_{18}H_{22}N_2O_2$	[100046-00-2]	2,2′,4,4′,6,6′-hexamethylazobenzene-*N*,*N*-dioxide				
	SUB		107 ± 12	298	ME	[1993ACR/TUC2]
$C_{18}H_{22}N_4$	[118655-99-5]	*trans,trans*-1,6-diphenyl-3,3,4,4-tetramethyl-1,2,5,6-tetraazahexane				
	FUS		21.09	342.3	DSC	[1993ENG/WAN]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		113.8 ± 1.8		V+F	[1993ENG/WAN]
	V	(348–388)	92.8 ± 1.5	368	GS	[1993ENG/WAN]
$C_{18}H_{22}O_2$	[41047-48-7]	(*dl*)-2,3-dimethoxy-2,3-diphenylbutane				
	SUB	(322–355)	114.2 ± 6.3	339		[1990DOG/BEC]
$C_{18}H_{22}O_2$		*(dl)*-anisylidenecamphor				
	FUS		26.36	371.5	DSC	[1976LEC/COL]
$C_{18}H_{22}O_2$		(*d*)-anisylidenecamphor				
	FUS		30.12	399.5	DSC	[1976LEC/COL]
$C_{18}H_{22}O_2$	[80-43-3]	di-α-cumyl peroxide				
	FUS		28.14	312.4	AC	[1996DOM/HEA, 1957MAS]
$C_{18}H_{22}O_2$	[53-16-7]	3-hydroxyestra-1,3,5(10)-triene-17-one ((+)-estrone)				
	FUS		45.11	527.6	DSC	[2016MOO/RAR]
	FUS		41.7	422.2	DSC	[2010DOM/POB]
$C_{18}H_{22}O_3$		Butyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		35.1	341.3	DSC	[1994WEB/MEY]
$C_{18}H_{22}O_3$		1,1-dimethylethyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		33.8	365.6	DSC	[1994WEB/MEY]
$C_{18}H_{22}O_4$	[39787-30-9]	1,2-diphenyl-1,1,2,2-tetramethoxyethane				
	FUS		20.1	328.5		[1995VER/DOG]
	SUB	(351–399)	77.6 ± 0.6	375	T	[1995VER/DOG]
$C_{18}H_{22}O_4$	[119291-29-1]	4,4′-di-(2-methoxyethoxy)biphenyl				
	TRS		17.53	409.5		
	FUS		22.67	412.4	DSC	[1995BOW/HER]
$C_{18}H_{22}O_5$		2-(2-hydroxyethoxy)ethyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		17.8	306.6	DSC	[1994WEB/MEY]
$C_{18}H_{23}FO_2$	[157396-75-3]	4-*trans*-(4-fluorophenylethyl)cyclohexyl-(*E*)-butenoate				
	FUS		25.0	335.2	DTA	[1995KEL/SCH]
$C_{18}H_{24}$	[13349-10-5]	Heptacyclo[7.7.1.1^{3,15}.0^{1,12}.0^{2,7}.0^{4,13}.0^{6,11}]octadecane (triamantane)				
	TRS		1.1	293.7	DTA	[1981JEN/OBR]
$C_{18}H_{24}$	[1610-22-6]	1,2,3,4,4*a*,7,8,9,10,12,12*a*-dodecahydrochrysene				
	SUB	(293–313)	115.4	303	A	[1987STE/MAL, 1964MOR]
	V	(318–358)	84.2	333	A	[1987STE/MAL, 1947STU]
$C_{18}H_{24}$	[83171-44-2]	(*E*)-9-(bicyclo[4.2.1]non-3-en-9-ylidene)bicyclo[4.2.1]non-3-ene				
	FUS		9.1	441.7	DSC	[1984MAR/MEL]
$C_{18}H_{24}$	[83171-45-3]	(*Z*)-9-(bicyclo[4.2.1]non-3-en-9-ylidene)bicyclo[4.2.1]non-3-ene				
	FUS		27.96	440.8	DSC	[1984MAR/MEL]
$C_{18}H_{24}$	[3905-64-4]	2,6-di-*tert*-butylnaphthalene				
	FUS		18.55	420.2	DSC	[2016SAN/OLI]
	SUB	(323–345)	99.1 ± 0.4	298	ME	[2016SAN/OLI]
$C_{18}H_{24}ClNO_2S$	[710333-38-3]	*N*-(3,5-dimethyladamantan-1-yl)-4-chlorobenzenesulfonamide				
	FUS		37.1	434.9	DSC	[2016PER/VOL]
	SUB	(365–408)	122.3 ± 1.0	386	GS	[2016PER/VOL]
	SUB	(365–408)	128.3 ± 1.0	298	GS	[2016PER/VOL]
$C_{18}H_{24}FNO_2S$	[1802842-09-6]	*N*-(3,5-dimethyladamantan-1-yl)-4-fluorobenzenesulfonamide				
	FUS		29.8	410.4	DSC	[2016PER/VOL]
	SUB	(364–391)	115.4 ± 1.6	377	GS	[2016PER/VOL]
	SUB	(364–391)	120.8 ± 1.6	298	GS	[2016PER/VOL]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{24}N_2O_4$	[138516-98-0]	(4-nitrophenyl)-10-undecynyl carbamate				
	FUS		53.18	385.4	DSC	[1993TIE/FRA]
$C_{18}H_{24}N_2O_6$	[172512-06-0]	3-[(hydroxyimino)(4-methoxy-3-nitrophenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	FUS		31.99	433	DSC	[1995NUR/LEL]
$C_{18}H_{24}O$		(1*R*,1′*R*,6*S*,6′*S*,9*S*,9″*S*)-dispiro(bicyclo[4.2.1]non-3-ene-9,2′-oxirane-3′,9″-bicyclo[4.2.1]non-3-ene)				
	TRS		5.92	354.3		
	FUS		8.19	373.8	DSC	[1984MAR/MEL]
$C_{18}H_{24}O$		(1*R*,1″*R*,6*S*,6″*S*,9R,9″*S*)-dispiro(bicyclo[4.2.1]non-3-ene-9,2′-oxirane-3′,9″-bicyclo[4.2.1]non-3-ene)				
	FUS		14.92	333.9	DSC	[1984MAR/MEL]
$C_{18}H_{24}O_3$	[104225-40-3]	3-(4-ethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		22.54	387.6	DSC	[1992TER/PAU]
$C_{18}H_{24}O_3$	[104225-33-4]	3-(3,4-dimethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		32.31	460.6	DSC	[1992TER/PAU]
$C_{18}H_{24}O_3$	[104225-36-7]	3-(2,4-dimethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		18.81	386.8	DSC	[1992TER/PAU]
$C_{18}H_{24}O_4$	[57403-79-9]	3-(4-ethoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		22.05	394.6	DSC	[1992TER/PAU]
$C_{18}H_{24}O_4$	[84-64-0]	Butylcyclohexylphthalate				
	V	(368–485)	94.3	383	A	[1987STE/MAL, 1952WER]
$C_{18}H_{25}NO_3$	[104225-18-5]	3-[4-(dimethylamino)benzoyl]-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		25.03	445	DSC	[1992TER/PAU]
$C_{18}H_{25}NO_4$	[172589-19-4]	3-[(hydroxyimino)(4-methoxyphenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	FUS		36.99	433	DSC	[1995NUR/LEL]
$C_{18}H_{26}N_2O_4$	[138516-97-9]	(4-nitrophenyl)-10-undecenyl carbamate				
	FUS		43.81	376.4	DSC	[1993TIE/FRA]
$C_{18}H_{26}N_2S$	[1383254-26-9]	*N*-[4-(1-methylethyl)phenyl]-1-thia-3-azaspiro[5.5]undec-2-en-2-amine				
	FUS		29.2	412.7	DSC	[2012BLO/OLK]
	SUB	(365–393)	117.8 ± 1.1	379	GS	[2012OLK/SHA]
	V		101.7	298	S-F	[2012OLK/SHA]
$C_{18}H_{26}O_2$	[54406-48-3]	(*E*)-(*RS*)-1-ethynyl-2-methylpent-2-enyl (I*RS*,3*RS*;1*RS*,3*SR*)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate				
	V (I)		87.2 ± 4.8	298	CGC	[2013SPE/CHI]
	V (II)		87.0 ± 4.8	298	CGC	[2013SPE/CHI]
[Note: The authors of [2013SPE/CHI] reported the enthalpies of vaporization of the two diasteriomers in the commercial sample]						
$C_{18}H_{26}O_2$	[434-22-0]	17β-hydroxyestra-4-en-3-one (nandrolone)				
	FUS		20.6	397.2	DSC	[2015NUR/BOO]
$C_{18}H_{26}O_3$		(*E*)-2-ethylhexyl 4-methoxycinnamate				
	V		108.9 ± 1.8	298	GC-RT	[2015PEG/CHI]
$C_{18}H_{26}O_3$		(*Z*)-2-ethylhexyl 4-methoxycinnamate				
	V		98.9 ± 1.8	298	GC-RT	[2015PEG/CHI]
$C_{18}H_{26}O_4$	[605-50-5]	Diisopentylphthalate				
	V	(390–610)	81.6	405	A	[1987STE/MAL]
$C_{18}H_{26}O_4$	[131-18-0]	Dipentyl phthalate				
	V	(323–390)	87.3	338	T	[1949PER/WEB]
	V	(303–500)	99.4	318	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{18}H_{27}BrN_2O_4$	[138517-07-4]	(4-nitrophenyl)-11-bromoundecyl carbamate				
	FUS		58.56	395.6	DSC	[1993TIE/FRA]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{27}IN_2O_4$	[138517-10-9]	(4-nitrophenyl)-11-iodoundecyl carbamate				
	FUS		63.34	399.6	DSC	[1993TIE/FRA]
$C_{18}H_{27}NO_3$	[404-86-4]	Capsaicin				
	FUS		19.82	338.6	DSC	[2012YAN/WAN]
$C_{18}H_{28}$	[66553-12-6]	1,2,3,4-tetrahydro-6-octylnaphthalene				
	V	(503–574)	103.3	538		[1999DYK/SVO]
$C_{18}H_{28}$	[83171-46-4]	(*E*)-9-(bicyclo[4.2.1]nonan-9-ylidene)bicyclo[4.2.1]nonane				
	TRS		2.68	224.8		
	FUS		9.32	412.4	DSC	[1984MAR/MEL]
$C_{18}H_{28}$	[83171-47-5]	(*Z*)-9-(bicyclo[4.2.1]nonan-9-ylidene)bicyclo[4.2.1]nonane				
	TRS		10.12	344.4		
	FUS		11.04	393.3	DSC	[1984MAR/MEL]
$C_{18}H_{28}N_2O$	[27262-45-9]	*N*-(2,6-dimethylphenyl)-1-butyl-2-piperidinecarboxamide				
	FUS		26.25	413.2	DSC	[1997NEM/ACS]
$C_{18}H_{28}O$		(1*R*,1″*R*,6*S*,6″*S*, 9*R*,9″*R*)-dispiro(bicyclo[4.2.1]nonane-9,2′-oxirane-3′,9″-bicyclo[4.2.1]nonane)				
	TRS		9.74	348.5		
	FUS		13.13	444.1	DSC	[1984MAR/MEL]
$C_{18}H_{28}O$		(1*R*,1″*R*,6*S*,6″*S*,9*R*,9″*S*)-dispiro(bicyclo[4.2.1]nonane-9,2′-oxirane-3′,9″-bicyclo[4.2.1]nonane)				
	TRS		0.72	274.9		
	FUS		6.35	342.5	DSC	[1984MAR/MEL]
$C_{18}H_{28}O_2$	[42588-37-4]	(*R*,*S*)-2-propynyl (2*E*,4*E*)-3,7,11-trimethyl-2,4-dodecadienoate				
	V		98.1 ± 3.7	298	CGC	[2016GOO/HAS]
$C_{18}H_{28}O_4$	[118476-22-5]	2,5-di-*n*-hexyloxy-1,4-benzoquinone				
	TRS		5.3	332.3		
	FUS		38.9	412.1	DSC	[1996KEE/VAN]
$C_{18}H_{28}S_8$	[106920-28-9]	2-[4,5-bis(propylthio)-1,3-dithiol-2-ylidene]-4,5-bis(propylthio)-1,3-dithiole				
	FUS		42.7	306.6	AC	[1997TAN/ATA]
$C_{18}H_{29}NO$	[24973-59-9]	2,4,6-tri-*tert*-butylnitrosobenzene				
	SUB		91.0 ± 3.2	298	C	[1995ACR/BOT]
$C_{18}H_{29}NO_2$	[4074-25-3]	2,4,6-tri-*tert*-butylnitrobenzene				
	FUS		19.25	482.8	DSC	[2000VER/HEI]
	SUB	(333–368)	94.8 ± 1.0	351	GS	[2000VER/HEI]
	SUB	(333–368)	96.4 ± 1.0	298	GS	[2000VER/HEI]
	SUB		81.4 ± 1.8	298	C	[1995ACR/BOT]
$C_{18}H_{29}NO_3$	[19408-84-5]	*N*-[(4-hydroxy-3-methoxyphenyl)methyl]-8-methylnonamide (dihydrocapsaicin)				
	FUS		19.0	332.5	DSC	[2011ZHA/WAN]
$C_{18}H_{29}NO_3$	[63659-18-7]	1-[4-[2-(cyclopropylmethoxy)ethyl]phenoxy]-3-[(1-methylethyl)amino]-2-propanol ((±)-betaxolol)				
	FUS		47.3	342.2	DSC	[2013MAR/CAS]
$C_{18}H_{30}$	[2090-14-4]	Perhydrochrysene				
	V	(273–353)	82.4	288		[1964MOR]
$C_{18}H_{30}$	[604-88-6]	Hexaethylbenzene				
	SUB	(327–352)	95.0 ± 4.0	340	HSA	[1986CHI/ANN]
	SUB		U 41.3 ± 0.9		DSC	[1984HOL]
	V	(407–572)	62.6	422	A	[1987STE/MAL, 1947STU]
$C_{18}H_{30}$	[635-11-0]	1,2,4,5-tetraisopropylbenzene				
	FUS		19.6	393		[2002STE/CHI6]
	V	(410–575)	61.1 ± 0.3	420	EB	[2002STE/CHI6]
	V	(410–575)	56.8 ± 0.3	460	EB	[2002STE/CHI6]
	V	(410–575)	52.3 ± 0.5	500	EB	[2002STE/CHI6]
	V	(410–575)	47.5 ± 0.9	540	EB	[2002STE/CHI6]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{30}$	[1460-02-2]	1,3,5-tri-*tert*-butylbenzene				
	SUB	(298–341)	79.9 ± 0.3	319	T	[1998VER]
	SUB	(298–341)	81.2 ± 0.3	298	T	[1998VER]
	SUB	(273–315)	79.7 ± 0.4	294	ME	[1965DAV/KYB, 1987STE/MAL]
$C_{18}H_{30}$	[2090-14-4]	Perhydrochrysene				
	V	(273–353)	82.3	288	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{30}$	[123-01-3]	1-phenyldodecane				
	FUS		43.1	274.6	DSC	[2000MOK/RUZ]
	SUB		135.1	275	V + F	[2000MOK/RUZ]
	V	(323–462)	89.0	298		[2000MOK/RUZ]
	V	(323–462)	92.0	275		[2000MOK/RUZ]
	V	(333–453)	83.2	348		[1993KAS/MOK]
	V	(496–609)	67.4	511	A	[1987STE/MAL]
	V	(336–456)	80.6	356	GS	[1986ALL/JOS]
	V		89.6	298		[1971WIL/ZWO]
$C_{18}H_{30}N_4O_2$	[126235-05-0]	8-undecyltheophylline				
	FUS		25.8	433.5	DSC	[1989GON/KRA, 1991ACR]
$C_{18}H_{30}O$	[732-26-3]	2,4,6-tri-*tert*-butylphenol				
	FUS		19.46	405.2	DSC	[1991CHI/BRA]
	SUB		87.5 ± 0.4	298	GS	[1999VER]
	SUB	(295–339)	85.6 ± 0.4	317	ME	[1965DAV/KYB, 1987STE/MAL]
	SUB		U128.1	298	C	[1971BER/GIR, 1999VER]
	SUB	(292–313)	83.9	302		[1960AIH]
	SUB		84.2 ± 0.5	298	V	[1960AIH, 1999VER]
	V	(415–551)	63.2	430		[1987STE/MAL]
$C_{18}H_{30}O_2$	[59968-12-6]	1,3-dimethoxy-4-decylbenzene				
	V	(443–493)	76.6	458	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{18}H_{30}O_2$	[41442-52-8]	1,3-dimethoxy-5-decylbenzene				
	V	(459–519)	78.4	474	A, GC	[1987STE/MAL, 1975KUN/LIL]
$C_{18}H_{30}O_2$	[506-26-3]	6-*cis*,9-*cis*,12-*cis*-octadecatrienoic acid (gamma-linolenic acid)				
	V		135.9 ± 6.8	298	CGC	[2013WIL/CHI]
$C_{18}H_{30}O_2$	[463-40-1]	(9Z,12Z,15Z)-9,12,15-octadecatrienoic acid (α-linolenic acid)				
	V		136.9 ± 10.4	298	CGC	[2013WIL/CHI]
$C_{18}H_{30}O_4$	[47189-08-2]	1,4-bis(1,1-diethoxy ethyl)lbenzene (4-diacetylbenzene diethyl ketal)				
	TRS	(6–340)	1.31	168.2		
	FUS	(6–340)	23.5	326.2	AC	[1996DOM/HEA, 1978KAR/RAB2]
	SUB	(306–327)	112.5	316.5		[1978KAR/KAM, 1987STE/MAL]
	V	(329–347)	88.5	338	A	[1987STE/MAL]
$C_{18}H_{30}O_4$	[849-99-0]	Dicyclohexyl adipate				
	V	(338–369)	106.3 ± 1.5	298	GS	[2008LIP/KRA]
$C_{18}H_{30}O_6$	[7568-58–3]	*trans* aconitic acid, tributyl ester				
	V	(385–483)	87.4	400	A	[1987STE/MAL, 1953MAG/MOD]
$C_{18}H_{30}O_{11}$	[5349-69-9]	Diethylene glycol dicarboxylic acid, di[1-(isopropoxycarbonyl)ethyl] ester				
	V	(418–493)	97.6	433	A	[1987STE/MAL, 1949REH/DIX]
$C_{18}H_{30}O_{11}$	[5334-85-0]	Diethylene glycol dicarboxylic acid, di[1-(propoxycarbonyl)ethyl] ester				
	V	(418–514)	101.5	433	A	[1987STE/MAL, 1949REH/DIX]
$C_{18}H_{31}N$	[961-38-6]	2,4,6-tri-*tert*-butylaniline				
	FUS		19.38	426.4	DSC	[2000VER3]
	SUB	(333–368)	89.4 ± 1.1	350	GS	[2000VER3]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(333–368)	92.5 ± 1.1	298	GS	[2000VER3]
$C_{18}H_{32}$	[55133-89-6]	9-butyltetradecahydroanthracene				
	V	(420–456)	72.8	435	A	[1987STE/MAL]
$C_{18}H_{32}$	[2456-43-1]	1,2-dicyclohexylcyclohexane				
	V	(375–563)	72.8	390	A	[1987STE/MAL]
$C_{18}H_{32}O$	[1604-32-6]	6,10,14-trimethyl-3,5-pentadecadien-2-one				
	V	(404–560)	43.4 ± 0.5	482	Static	[1988BAG/GUR]
$C_{18}H_{32}O_2$	[506-21-8]	Linoelaidic acid				
	FUS		47.7	303	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[60-33-3]	(*Z*, *Z*)-9,12-octadecadienoic acid (linoleic acid)				
	FUS		34.08	268.2	DSC	[2016MAX/AQU]
	FUS		34.7	268.0	A, T	[1982JAL/ZOG, 2016MAX/AQU]
	V		134.2 ± 2.1	298	CGC	[2015WIL/GOB]
	V		134.1 ± 10.3	298	CGC	[2013WIL/CHI]
$C_{18}H_{32}O_2$	[19307-18-7]	4-octadecynoic acid				
	FUS		57.94	348	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[676-30-2]	5-octadecynoic acid				
	FUS		54.41	325	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[544-74-1]	6-octadecynoic acid				
	FUS		54.92	324	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-35-0]	7-octadecynoic acid				
	FUS		53.61	322	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-36-1]	8-octadecynoic acid				
	FUS		55.3	320	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[506-24-1]	9-octadecynoic acid				
	FUS		54.87	319	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-39-4]	10-octadecynoic acid				
	FUS		52.32	319	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-40-7]	11-octadecynoic acid				
	FUS		55.97	320	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-41-8]	12-octadecynoic acid				
	FUS		49.79	320	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[19220-42-9]	13-octadecynoic acid				
	FUS		55.51	322	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[34494-26-3]	14-octadecynoic acid				
	FUS		52.74	337	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[34450-17-4]	16-octadecynoic acid				
	FUS		60.1	347	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[34450-18-5]	17-octadecynoic acid				
	FUS		54.2	340	TA	[1982JAL/ZOG]
$C_{18}H_{32}O_2$	[13747-10-9]	1,10-cyclooctadecanedione				
	TRS		11.84	359.2		
	FUS		27.03	371.2		[1972ALV/BOR]
$C_{18}H_{32}O_4$	[38734-11-1]	1,8-cyclotetradecanedione bis(ethylene ketal)				
	FUS		30.67	457.2		[1972ALV/BOR]
$C_{18}H_{32}O_6$	[38094-11-0]	Tributyl 1,2,3-propanetricarboxylate				
	V	(385–482)	87.8	400	A	[1987STE/MAL]
$C_{18}H_{32}O_6$	[620-68-8]	Glycerol tri(pentanoate)				

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(340–370)	107.9 ± 0.6	298	GS	[2010MAS/KRA]
$C_{18}H_{32}O_6$	[620-63-3]	Glycerol tri(3-methylbutanoate)				
	V	(341–369)	106.0 ± 1.1	298	GS	[2010MAS/KRA]
$C_{18}H_{32}O_6$	[58006-18-1]	Glycerol tri(2,2-diemthylpropanoate)				
	V	(313–358)	91.6.0 ± 0.7	298	GS	[2010MAS/KRA]
$C_{18}H_{34}$	[629-89-0]	1-octadecyne				
	V	(450–623)	64.9	465		[1999DYK/SVO]
$C_{18}H_{34}$	[61847-97-0]	2-octadecyne				
	V	(458–633)	65.7	473		[1999DYK/SVO]
$C_{18}H_{34}$	[61886-64-4]	3-octadecyne				
	V	(449–622)	64.5	464		[1999DYK/SVO]
$C_{18}H_{34}$	[95049-67-5]	1,4-dipentylbicyclo[2.2.2]octane				
	FUS		20.4	261.5	DSC	[1999DOU/BOT]
$C_{18}H_{34}$	[1610-23-7]	1,6-dicyclohexylhexane				
	V	(288–373)	85.9	303	A	[1987STE/MAL, 1964MOR]
$C_{18}H_{34}O$	[6907-37-5]	Cyclooctadecanone				
	SUB		77.4			[1938WOL/WEG, 1960JON]
$C_{18}H_{34}O_2$	[593-39-5]	*cis*-6-octadecenoic acid				
	FUS		59.9	302.3	DSC	[2007MOO/KOE]
	FUS		47.5	303.7	DSC	[1996DOM/HEA, 1990SAT/YOS]
	V		131.2 ± 2.1	298	CGC	[2015WIL/GOB]
$C_{18}H_{34}O_2$	[112-80-1]	*cis*-9-octadecenoic acid (oleic acid)				
	TRS		8.08	267.3		
	FUS		42.54	285.8	DSC	[2009KNO/DUN]
	TRS		8.70	270.6		
	FUS		39.0	286.8	DSC	[2004INO/HIS]
	FUS		21.3	278	DSC	[2001CED/PRI]
	FUS (α)		39.6	286.5		
	FUS (β)		51.9	289.4	DSC	[1996DOM/HEA, 1990SAT/YOS]
	TRS		8.76	271.0		
	FUS		39.6	286.5	DSC	[1985SUZ/OGA]
	V		132.6 ± 6.6	298	CGC	[2015WIL/GOB]
	V	(441–633)	83.8	456	A	[1987STE/MAL]
$C_{18}H_{34}O_2$	[112-79-8]	*trans*-9-octadecenoic acid (elaidic acid)				
	FUS		53.6	317.6	DSC	[1994UEN/SUE, 1997SAT/YAN]
	FUS		58.6	317		[1982JAL/ZOG]
	FUS		61.55	317.6		[1991ACR, 1983WEA]
	V		133.0 ± 10.3	298	CGC	[2013WIL/CHI]
	V	(444–635)	82.3	459	A	[1987STE/MAL, 1947STU]
$C_{18}H_{34}O_2$	[2549-53-3]	Tetradecyl methacrylate				
	V	(463–611)	69.1	478	A	[1987STE/MAL]
$C_{18}H_{34}O_2$	[141694-86-2]	(*Z*)-3-hexadecenyl acetate				
	V	(373–418)	98.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[128984-60-1]	(*E*)-3-hexadecenyl acetate				
	V	(373–418)	99.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[65954-24-7]	(*Z*)-4-hexadecenyl acetate				
	V	(373–418)	97.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[155055-27-9]	(*E*)-4-hexadecenyl acetate				
	V	(373–418)	98.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-18-9]	(*Z*)-5-hexadecenyl acetate				
	V	(373–418)	98.0	298	GC	[1997KOU/HOS, 2000OVA/KOU]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{34}O_2$	[56218-65-6]	(*E*)-5-hexadecenyl acetate				
	V	(373–418)	98.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-19-0]	(*Z*)-6-hexadecenyl acetate				
	V	(373–418)	97.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-66-7]	(*E*)-6-hexadecenyl acetate				
	V	(373–418)	98.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[23192-42-9]	(*Z*)-7-hexadecenyl acetate				
	V	(373–418)	97.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[23192-83-8]	(*E*)-7-hexadecenyl acetate				
	V	(373–418)	98.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-67-8]	(*Z*)-8-hexadecenyl acetate				
	V	(373–418)	97.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-68-9]	(*E*)-8-hexadecenyl acetate				
	V	(373–418)	98.6	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-20-3]	(*Z*)-9-hexadecenyl acetate				
	V	(373–418)	98.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-69-0]	(*E*)-9-hexadecenyl acetate				
	V	(373–418)	98.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-70-3]	(*Z*)-10-hexadecenyl acetate				
	V	(373–418)	98.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-71-4]	(*E*)-10-hexadecenyl acetate				
	V	(373–418)	99.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[34010-21-4]	(*Z*)-11-hexadecenyl acetate				
	V	(373–418)	98.9	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-72-5]	(*E*)-11-hexadecenyl acetate				
	V	(373–418)	99.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-73-6]	(*Z*)-12-hexadecenyl acetate				
	V	(373–418)	99.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[64789-90-8]	(*E*)-12-hexadecenyl acetate				
	V	(373–418)	99.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[56218-74-7]	(*Z*)-13-hexadecenyl acetate				
	V	(373–418)	100	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[69282-67-3]	(*E*)-13-hexadecenyl acetate				
	V	(373–418)	100.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{18}H_{34}O_2$	[13161-77-8]	*trans*-3-octadecenoic acid				
	FUS		57.15	334	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[34450-19-6]	*trans*-4-octadecenoic acid				
	FUS		55.88	333	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[7056-85-1]	*trans*-5-octadecenoic acid				
	FUS		45.11	319	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[593-40-8]	*trans*-6-octadecenoic acid				
	FUS		60.15	326	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[5684-82-2]	*trans*-10-octadecenoic acid				
	FUS		58.52	326	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[506-17-2]	*cis*-11-octadecenoic acid (asclepic acid)				
	TRS		7.8	257.8		
	FUS		39.8	287	DSC	[1997SAT/YAN]
$C_{18}H_{34}O_2$	[693-72-1]	*trans*-11-octadecenoic acid				
	FUS		58.49	317	TA	[1982JAL/ZOG]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{34}O_2$	[13126-38-0]	*trans*-12-octadecenoic acid				
	FUS		56.71	325	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[693-71-0]	*trans*-13-octadecenoic acid				
	FUS		55.62	318	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[13126-42–6]	*trans*-14-octadecenoic acid				
	FUS		57.06	327	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_2$	[13126-44-8]	*trans*-15-octadecenoic acid				
	FUS		58.98	331	TA	[1982JAL/ZOG]
$C_{18}H_{34}O_4$	[110-33-8]	Dihexyl adipate				
	V	(470–595)	80.4	485	A	[1987STE/MAL]
$C_{18}H_{34}O_4$	[109-43-3]	Dibutyl decanedioate				
	V	(468–532)	106.4	483	EB	[2008ZHU/XU]
	V	(400–532)	87.6	465		[2008ZHU/XU]
[Note: The first value is based on published Antoine constants determined from the authors' experimental data; the second value is what the authors reported from combining their experimental data with published literature data]						
	V		88.1	327	TGA	[1990KIS/SHO]
	V		91.8 ± 3.2	298	TGA	[1990KIS/SHO]
	V	(401–520)	94.3	416	A	[1987STE/MAL]
$C_{18}H_{34}O_5$	[1081524-92–6]	Decyl[1-(butoxycarbonyl)ethyl]carbonate				
	V	(391–503)	79.3	406	A	[1987STE/MAL, 1950REH/DIX2]
$C_{18}H_{34}O_6$	[95-08-9]	Triethylene glycol, bis(2-ethylbutyrate)				
	V	(313–528)	91.7	328	A	[1987STE/MAL]
$C_{18}H_{35}N$	[638-65-3]	Stearonitrile				
	FUS		56.5	315.5	DSC	[2006TEI/GON]
	V	(478–631)	78.6	493	A	[1987STE/MAL]
$C_{18}H_{35}NO_3$	[2441-41-0]	*N*-hexadecanoylglycine				
	TRS + FUS		42.13	397.0	DSC	[2014RED/KRO]
	TRS		5.6	366.1		
	TRS		4.5	384.6		
	FUS		56.5	393.1	DSC	[1986MIY/MAT]
$C_{18}H_{35}NO_3$	[14379-40-9]	*N*-dodecanoyl-(*l*)-leucine				
	FUS		33.5	383.1	DSC	[1986MIY/MAT]
$C_{18}H_{35}NO_3$	[97850-50-5]	*N*-dodecanoyl-(*dl*)-leucine				
	TRS		28.9	341.1		
	FUS		31.0	356.6	DSC	[1986MIY/MAT]
$C_{18}H_{36}$	[6006-34-4]	Tridecylcyclopentane				
	V	(463–634)	70.9	478		[1999DYK/SVO]
	V		90.5	298		[1971WIL/ZWO]
$C_{18}H_{36}$	[1795-17-1]	Dodecylcyclohexane				
	FUS		45.84	258.8		[1996DOM/HEA, 1949PAR/MOO2]
	V		88.9 ± 0.8	298	GCC	[1978FUC/PEA]
	V		89.5	298		[1971WIL/ZWO]
	V	(299–324)	93.4	311	A, ME	[1987STE/MAL, 1949PAR/MOO]
$C_{18}H_{36}$	[296-18-4]	Cyclooctadecane				
	TRS		29.29	298.2		
	FUS		9.87	346.2		[1969BOR/DAL]
$C_{18}H_{36}$	[42506-48-9]	1,1-dimethylcyclohexadecane				
	TRS		1.26	216.2		
	TRS		0.42	221.2		
	FUS		14.23	290.2	DSC	[1975BJO/BOR2]
$C_{18}H_{36}$	[112-88-9]	1-octadecene				

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(399–589)	76.4	414	A	[1987STE/MAL]
	V		90	298		[1971WIL/ZWO]
$C_{18}H_{36}$	[24584-00-7]	*cis,trans*-1,3,5-tri-*tert*-butylcyclohexane				
	FUS		17.99	338.2		[1968VAN/HOE]
$C_{18}H_{36}$	[24583-99-1]	*cis,cis*-1,3,5-tri-*tert*-butylcyclohexane				
	FUS		26.78	393.2		[1968VAN/HOE]
$C_{18}H_{36}N_2O_2$	[21150-82-3]	*N*, *N*′-di-*n*-hexyladipamide				
	FUS		40.79	432		[1996DOM/HEA, 1953WIL/DOL]
$C_{18}H_{36}O$	[41207-35-6]	(*Z*)-3-octadecen-1-ol				
	V	(393–433)	120.5	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[41207-36-7]	(*E*)-3-octadecen-1-ol				
	V	(393–433)	120.0	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[143-28-2]	(*Z*)-9-octadecen-1-ol				
	V	(393–433)	119.3	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[506-42-3]	(*E*)-9-octadecen-1-ol				
	V	(393–433)	120.1	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[57716-88-8]	(*Z*)-11-octadecen-1-ol				
	V	(393–433)	119.6	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[62972-93-4]	(*E*)-11-octadecen-1-ol				
	V	(393–433)	120.4	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[69820-27-5]	(*Z*)-13-octadecen-1-ol				
	V	(393–433)	120.8	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[76836-10-7]	(*E*)-13-octadecen-1-ol				
	V	(393–433)	121.2	298	CGC	[2000OVA/KOU, 1994KOU/HOS]
$C_{18}H_{36}O$	[502-69-2]	6,10,14-trimethyl-2-pentadecanone				
	V	(402–500)	56.0 ± 0.6	451	Static	[1988BAG/GUR]
$C_{18}H_{36}O$	[638-66-4]	Octadecanal				
	V	(413–616)	75.7	428	A	[1987STE/MAL, 1947STU]
$C_{18}H_{36}O_2$	[629-70-9]	Hexadecyl acetate				
	V	(373–418)	102.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(431–469)	70.3	446	A	[1987STE/MAL]
$C_{18}H_{36}O_2$	[628-97-7]	Ethyl palmitate				
	FUS		55.75	298.2	DSC	[2014ROB/BAR]
	FUS		51.8	296.2	DSC	[2003SUP/GOF]
	FUS		53.14	296		[1967OMA]
	FUS		53.09	296.4	CR	[1934KIN/GAR]
	SUB	(286–294)	150.8	290	ME	[1987STE/MAL, 1967OMA]
	V	(464–515)	91.0	464	DSC	[2011SIL/FAL]
	V	(429–466)	73.9	444	A	[1987STE/MAL]
	V	(298–318)	100.7	308	ME	[1987STE/MAL, 1967OMA]
$C_{18}H_{36}O_2$	[1731-92-6]	Methyl heptadecanoate				
	FUS		48.1	304.2	DSC	[2004CHI/ZHA]
	V	(467–558)	100.8 ± 1.0	298	CGC	[2004CHI/ZHA]
	V		89.3	350	CE	[2002VAN/VAN]
	V		89.0 ± 0.7	353	CE	[2002VAN/VAN]
	V		97.0 ± 1.2	298	CE	[2002VAN/VAN]
	V	(421–525)	84.4	436	A, E	[1987STE/MAL, 1963ROS/SCH]
$C_{18}H_{36}O_2$	[57-11-4]	Octadecanoic acid (stearic acid)				
	FUS		61.10	344.0	DSC	[2016CAR/CON]
	FUS		64.23	344.0	DSC	[2016MAX/AQU]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		63.02	342.8	DSC	[2012BEN/KHI]
	FUS		65.4	342.8	DSC	[2011EGO/MAR]
	FUS		67.56	344.0	DSC	[2009COS/SAR]
	FUS		72.5	342.1	DSC	[2009SAR/BIC, 2010SAR/BIC]
	TRS		5.4	324.4		
	TRS		5.7	325.9		
	FUS		63.2	342.8	DSC	[2007MOR/COR]
	FUS		60.4	338.3	DSC	[2007MOO/KOE]
	FUS		57.8	344.1	DSC	[2006TEI/GON]
	FUS		61.0	340.2	DSC	[2005GOF/SUP]
	FUS		57.1	341.9	DSC	[2004STU/WIT]
	TRS		5.7	322.2		
	FUS		68.3	342.2	DSC	[2004MIR/ROH]
	FUS		59.5	343.0	DSC	[2004INO/HIS3]
	FUS		60.0	343.9	DSC	[2001CED/PRI]
	FUS		50.93	340.2	AC	[2000YU/MEN]
	FUS		61.30	342.8		[1990SAT/YOS]
	FUS	(100–355)	61.21	342.5	AC	[1996DOM/HEA, 1982SCH/VAN]
	FUS		61.50	344		[1982JAL/ZOG]
	FUS		63.0	342.6		[1964ADR/DEK]
	FUS		68.45	342.7		[1950SIN/WAR]
	FUS		64.64	326.1		[1889EYK]
	SUB		204.1 ± 9	298	TPD	[2008CAP/LOV]
	SUB	(291–309)	158.5		TPTD	[2005CHA/ZIE]
	SUB	(296–319)	158		TPTD	[2001CHA/TOB]
[Note: Experimental values based on the TPTD and TPD method are often inconsistent with values determined using other experimental methods.]						
	SUB	(331–340)	166.5 ± 4.2	336	ME	[1961DAV/MAL, 1970COX/PIL]
	V		132.6 ± 8.6	298	CGC	[2013WIL/CHI]
	V	(349–415)	124.3	364	A	[1987STE/MAL]
	V	(457–649)	100.6	472	A	[1987STE/MAL]
	V	(366–389)	118.9 ± 2.0	379	ME, TE	[1982DEK/SCH]
	V		79.8	515	I	[1943CRA]
$C_{18}H_{36}O_4$	[56444-62-3]	2,2,11,11-tetramethyl-1,3,10,12-tetraoxacyclooctadecane				
	FUS		35.1	373		[1975BOR]
$C_{18}H_{37}Br$	[112-89-0]	1-bromooctadecane				
	V	(430–673)	81.0	445	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{18}H_{37}Cl$	[3386-33-2]	1-chlorooctadecane				
	V		108.8	298		[2006BOL/NER2]
	V	(333–393)	96.9	333	GC	[1980JON/MAT]
	V	(333–393)	93.4	353	GC	[1980JON/MAT]
	V	(333–393)	88.4	373	GC	[1980JON/MAT]
	V	(333–393)	86.7	393	GC	[1980JON/MAT]
	V	(472–673)	74.2	487	A	[1987STE/MAL, 1970DYK/VAN]
$C_{18}H_{37}F$	[1649-73-6]	1-fluorooctadecane				
	V	(477–633)	68.2	492	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{18}H_{37}I$	[629-93-6]	1-iodooctadecane				
	V	(496–673)	109.3	298	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(496–673)	77.2	511	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{18}H_{37}NO$	[124-26-5]	Octadecanamide				
	TRS		2.2	298.7		
	FUS		54.8	379.7	DSC	[2008ABA/BAD]
	FUS		59.83	377.2	DSC	[1993ACR, 1991CHI/BRA]
	FUS		45.6	373.7	DSC	[1975BER/CIN]
	SUB	(367–379)	195.8 ± 4.2	373	ME	[1959DAV/JON2, 1987STE/MAL]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{37}NO$	[41328-72-7]	*N*-butyl tetradecanamide				
	FUS		45.0	336.1	DSC	[1993ACR, 1980CAR/BUS]
$C_{18}H_{37}NO$	[146985-21-9]	*N*,*N*-dihexyl hexanamide				
	V	(463–513)	80.4 ± 1.6	298	CGC	[2009PAN/ANT]
$C_{18}H_{38}$	[593-45-3]	Octadecane				
	FUS		65.3	300.3	DSC	[2016BOU/HAF]
	FUS		56.8	301.6	DSC	[2015QIU/LU]
	FUS		62.0	300.2	DSC	[2015VEL/KHA]
	FUS		61.65	301.0	DSC	[2014WEI/HAN]
	FUS		61.34	301.5	CVC	[2014FON/GUS]
	FUS		63.0	303.6	DSC	[2013JEO/JEO]
	FUS		61.65	300.95	DSC	[2013WEI/ZHA]
	FUS		59.1	300.9	DSC	[2005HUA/SIM]
	FUS		60.1	301.1	DSC	[2004MON/RAJ]
	FUS		59.8	301.1	DSC	[1999MET/RAJ]
	FUS		U 50.9	301.6	DSC	[1992BAB/HWA, 1994BAB/BEN]
	FUS		61.5	301.5		[1991BAR/SCH]
	FUS		60.67	300.7		[1991CLA/LET]
	FUS		60.76	301.0		[1985KOL/SYU]
	FUS		59.4	301.1	DSC	[1983CHA/MAU]
	FUS	(12–379)	61.71	301.3	AC	[1967MES/GUT]
	FUS		61.4	301.4	AC	[1955SCH/BUS]
	FUS		61.5	301.3		[1996DOM/HEA, 1949PAR/MOO2]
	SUB		142.3	298	ME	[2014FON/GUS]
	SUB		152.7	298	C	[1972MOR3]
	SUB	(288–298)	153.0 ± 5	293	ME	[1949BRA/SHE, 1960JON, 1970COX/PIL]
	V		90.6 ± 1.0	298	CGC	[2002CHI/WEB]
	V		91.3 ± 2.9	298	GS	[2001PUR/CHI]
	V		91.4 ± 1.3	298	CGC	[2000NIC/ORF]
	V	(363–413)	91.8	298	CGC	[1995CHI/HOS]
	V	(423–473)	91.8	298	CGC	[1995CHI/HOS]
	V	(453–503)	92.8	298	CGC	[1995CHI/HOS]
	V	(413–588)	74.4	428		[1994MOR/KOB]
	V		91.4	298		[1994RUZ/MAJ]
	V	(501–548)	64.8	516		[1987STE/MAL]
	V	(335–439)	80.0	348	GS	[1986ALL/JOS]
	V	(318–361)	84.3	333	A, GS	[1987STE/MAL, 1979MAC/PRA]
	V		72.5	343	GC	[1977NOV/NOV]
	V		71.8	353	GC	[1977NOV/NOV]
	V		71.1	363	GC	[1977NOV/NOV]
	V		70.5	373	GC	[1977NOV/NOV]
	V		69.8	383	GC	[1977NOV/NOV]
	V		90.8	298		[1971WIL/ZWO]
	V	(447–474)	78.1	460	ME	[1938UBB]
	V	(447–590)	69.4	462		[1882KRA, 1984BOU/FRI]
$C_{18}H_{38}$	[1560-89-0]	2-methylheptadecane				
	V	(442–581)	67.8	457	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[6418-44-6]	3-methylheptadecane				
	V	(441–583)	65.6	456	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[26429-11-8]	4-methylheptadecane				
	V	(429–580)	58.9	444	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[26730-95-0]	5-methylheptadecane				
	V	(432–581)	61.1	447	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[61868-02-8]	2,3-dimethylhexadecane				
	V	(466–583)	64.9	481	A	[1987STE/MAL, 1959TER/BRI]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{38}$	[61868-08-4]	2,4-dimethylhexadecane				
	V	(434–562)	69.0	449	A	[1987STE/MAL, 1959TER/BRI]
$C_{18}H_{38}$	[101882–67-1]	2,4,6-trimethylpentadecane				
	V	(420–550)	64.3	435	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{18}H_{38}$		4,9-diisopropyldodecane				
	V	(368–424)	70.0	383	A	[1987STE/MAL]
$C_{18}H_{38}$	[62850-21-9]	1,1,2,2-tetra-*tert*-butylethane				
	SUB	(303–366)	71.9	341	GS	[1984FLA/BEC]
	SUB	(303–366)	74.3	298	GS	[1984FLA/BEC]
$C_{18}H_{38}O$	[112-92-5]	1-octadecanol				
	FUS		65.35	331.3	DSC	[2016CAR/CON]
	FUS		40.3	331.6	DSC	[2014CAR/DOS]
	TRS + FUS		65.4	331.8	DSC	[2014MAX/CAR]
[Note: The value includes the enthalpy for the transition that occurred at 331.0 K.]						
	TRS + FUS		69.6	325.6	DSC	[2006NIC/KWE]
	FUS		40.1	330.1	DSC	[2004VEN/CAL]
	TRS		26.5	329.5		
	FUS		40.1	330.3	DSC	[2002VEN/RAM]
	FUS		66.67	331.2		[2001VAN/OON2]
	FUS		70.08	334.2	DSC	[1991CHI/BRA]
	FUS		55.9	332.15	DSC	[1978ECK/MUL]
	SUB	(318–329)	187.4 ± 1.3	324	ME	[1965DAV/KYB, 1987STE/MAL]
	SUB		191.2 ± 1.3	298		[1965DAV/KYB]
	V		116.8 ± 1.2	298	CGC	[2006NIC/KWE]
	V	(435–504)	86.4	450	A	[1987STE/MAL]
	V	(500–573)	76.3	515	A	[1987STE/MAL]
	V	(494–575)	76.9	509	A, EB	[1987STE/MAL, 1970AMB/SPR]
	V	(334–356)	113.5	345	A, ME	[1987STE/MAL, 1965DAV/KYB]
$C_{18}H_{38}O_2$	[2136-71-2]	2-(hexadecyloxy)ethanol				
	TRS		14.94	311.7		
	FUS		37.32	318.5	DTA	[1979KUC/SKU]
$C_{18}H_{38}O_2$	[3155-43-9]	1,18-octadecanediol				
	TRS		38.7	366.1		
	FUS		33.6	371.5	DSC	[1999OGA/NAK]
$C_{18}H_{38}O_4$	[4161-35-7]	6,6′-[1,6-hexanediylbis(oxy)]bis-1-hexanol				
	FUS		57.96	329.1	DSC	[1991BED/BOO]
$C_{18}H_{38}O_4$	[3055-94-5]	2-[2-(2-[dodecyloxy]ethoxy)ethoxy]ethanol				
	V	(475–523)	102.7	490	A	[1987STE/MAL, 1974NAK/EDA]
$C_{18}H_{38}O_4S_2$		2-deoxy-(*D*)-glucose dihexyl dithioacetal				
	TRS		16.4	376.2		
	FUS		45.0	386.4	DSC	[1989VAN/VAN]
$C_{18}H_{38}O_4S_2$		(*L*)-rhamnose dihexyl dithioacetal				
	FUS		48.5	388.2	DSC	[1989VAN/VAN]
$C_{18}H_{38}O_5S_2$	[115395-54-5]	(*D*)-glucose dihexyl dithioacetal				
	TRS		5.9	373.6		
	FUS		44.6	377	DSC	[1989VAN/VAN]
$C_{18}H_{38}O_5S_2$		(*L*)-arabinose dihexyl dithioacetal				
	TRS		6.7	345.1		
	TRS		1.0	358.2		
	FUS		39.2	367.2	DSC	[1989VAN/VAN]

TABLE 13. Phase change enthalpies of C_{17} to C_{18} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{18}H_{38}O_9$	[25990-94-7]	1,ω-dimethoxyocta(oxyethylene)				
	FUS		60.1	276.2		[1997SCH/VER]
$C_{18}H_{38}S$	[2885-00-9]	1-octadecanethiol				
	V	(492–670)	77.1	507	E	[1999DYK/SVO]
$C_{18}H_{38}S_2$	[4485-77-2]	Dioctyl disulfide				
	V	(490–650)	78.3	514		[1999DYK/SVO]
$C_{18}H_{39}N$	[112-69-6]	*N*,*N*-dimethylhexadecylamine				
	V		84.8 ± 1.0	298	CGC	[2014GOB/VIK]
	V	(483–671)	67.3	498	A	[1987STE/MAL]
$C_{18}H_{39}N$	[2044-21-5]	Dinonylamine				
	V	(486–676)	67.7	501	A	[1987STE/MAL]
$C_{18}H_{39}N$	[5877-76-9]	*N*-ethylhexadecylamine				
	V	(406–613)	66.4	421	A	[1987STE/MAL, 1947STU]
$C_{18}H_{39}N$	[124-30-1]	Octadecylamine				
	V	(450–635)	76.2	465	A	[1987STE/MAL]
$C_{18}H_{39}O_4P$	[2528-39-4]	Trihexyl phosphate				
	V	(483–513)	104.8	298	CGC	[2007PAN/ANT2]
	V	(493–523)	104.9	298		[2007PAN/ANT2]
$C_{18}H_{39}O_7P$	[78-51-3]	Tris(2-butoxyethyl)phosphate				
	V	(383–413)	102.6	398	GC-RT	[2014BRO/JAN]

TABLE 14. Phase change enthalpies of C_{19} to C_{29} organic compounds

Molecular Formula	CAS Registry Number / Enthalpy	Compound / Temperature Range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{19}H_{10}O$	[3074-00-8]	6*H*-benzo[*cd*]pyren-6-one				
	FUS		13.1	524.2	DSC	[2010KES/AUC]
$C_{19}H_{13}F_3O$	[145698-49-3]	4-ethoxy-4′-trifluoromethyldiphenyldiacetylene				
	FUS		32.73	424.9	DSC	[1993JUA/CHE]
$C_{19}H_{13}NO$	[67306-00-7]	1 [3-[4-(1,1-dimethylethyl)phenyl-2-methylpropyl]piperidine (fenpropidin)				
	V		80.9 ± 1.6	298	CGC	[2016GOB/WAL]
$C_{19}H_{13}NO$	[846-63-9]	2-(1-naphthyl)-5-phenyloxazole				
	V	(510–595)	89.2	525	A	[1987STE/MAL, 1975STE/SCH]
$C_{19}H_{13}NO$	[5472-23-1]	10-phenylacridin-9(10*H*)-one				
	FUS		38.9	550	DSC	[2003STO/KRZ]
	SUB		128		DSC	[2003STO/KRZ]
$C_{19}H_{14}$	[3351-31-3]	3-methylchrysene				
	FUS		16.5	445.0	DSC	[2010KES/AUC]
$C_{19}H_{14}$	[3351-30-2]	4-methylchrysene				
	FUS		18.3	424.0	DSC	[2010KES/AUC]
$C_{19}H_{14}$	[3697-24-3]	5-methylchrysene				
	FUS		19.0	390.7	DSC	[2010KES/AUC]
$C_{19}H_{14}$	[1705-85-7]	6-methylchrysene				
	FUS		22.7	432.5	DSC	[2010KES/AUC]
$C_{19}H_{14}F_2$	[145698-35-7]	4-propyl-3′,4′-difluorodiphenyldiacetylene				
	FUS		22.03	343.7	DSC	[1993JUA/CHE]
$C_{19}H_{14}O_4$		4-hydroxyphenyl-4″-hydroxybiphenyl-4′-carboxylate				
	FUS		49.59	566.2		[2000PUN]
$C_{19}H_{15}Cl$	[76-83-5]	Triphenylchloromethane				
	FUS		27.9	376.8	DSC	[1996DOM/HEA, 1991NAO/SEK]
$C_{19}H_{15}ClN_2O_3S$	[823833-98-3]	4-[[(3-chlorophenyl)amino]sulfonyl]-*N*-phenylbenzamide				
	FUS		44.81	498.4	DSC	[2014LAH/KUD]
$C_{19}H_{15}F_9OS$	[246543-99-7]	4-[[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)thio]methoxy]-1,1′-biphenyl				
	FUS		43.1	333.3	DTA	[1999DEG/GUI]
$C_{19}H_{15}F_9S$	[246543-96-4]	4-[[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)thio]methyl]-1,1′-biphenyl				
	FUS		41.0	307.1	DTA	[1999DEG/GUI]
$C_{19}H_{15}N$	[574-45-8]	*N*-phenyl benzophenone imine				
	FUS		29.14	392.3	DSC	[1997VER/MOR]
	SUB	(348–387)	115.5 ± 1.8	367	GS	[1997VER/MOR]
	SUB	(348–387)	119.7 ± 1.8	298	GS	[1997VER/MOR]
$C_{19}H_{15}N_3$	[14309-25-2]	Triphenylazidomethane				
	SUB	(335–363)	120.6	349	A	[1987STE/MAL, 1974PEP/ERL]
$C_{19}H_{16}$	[519-73-3]	triphenylmethane				
	FUS		20.7	367.2	DSC	[1999VER3]
	FUS		21.97	365.3	Rad. Calor.	[1996DOM/HEA, 1932SPA/THO]
	FUS		20.92	365.6		[1944EIB]
	FUS		18.2	365.5	C	[1917HIL/DUS]
	SUB	(323–353)	109.1 ± 0.6	298	GS	[1999VER3]
	SUB	(323–353)	106.7 ± 0.6	338	GS	[1999VER3]
	SUB		112	298	CGC–DSC	[1998CHI/HES]
	SUB	(343–363)	113.9	353	EM	[1989SAS/NGU]
	SUB	(303–358)	106.8	330	T	[1986HAN/ECK]
	SUB	(325–349)	100 ± 0.4	339	V	[1959AIH, 1970COX/PIL, 1987STE/MAL]
	SUB		100.7	298		[1986MAR/LOE, 1936CUT/BEN]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		105 ± 0.8			[1974PEP/ERL]
	V		93.2 ± 2.2	298	CGC	[2008HAN/NUT]
	V		94.6	298	CGC	[1998CHI/HES]
	V	(453–503)	95.0	298	CGC	[1995CHI/HOS]
	V	(343–462)	82.0	403		[1989SAS/NGU]
	V	(512–643)	58.6	527	A	[1987STE/MAL]
$C_{19}H_{16}ClNO_4$	[53-86-1]	1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1*H*-indole-acetic acid (indomethacin)				
	FUS		U75.4	433.6	DSC	[2015POB/DOM]
	FUS (γ-form)		38.42	434.0	DSC	[2015FER/DAL]
	FUS		40.61	438.2	DSC	[2015GAU/VAN]
	FUS		37.9	433.1	DSC	[2015SUN/YIN]
	FUS		U132.8	435.9	DSC	[2014TIT/LED]
[Note: Value reported by the authors in [2014TIT/LED] is abnormally large and out of line with values reported by other researchers.]						
	FUS		U405.6	435.9	DSC	[2011ELS/KHA]
[Note: Value reported by the authors in [2011ELS/KHA] is abnormally large and likely off by factor of ten.]						
	FUS		40.4	434.6	DSC	[2010SIV/BER]
	FUS		37.56	434	DSC	[2010BAI/VAN]
	FUS		45.02	432.3	DSC	[2010MIY/KHA]
	FUS		36.5	435.2	DSC	[2010MUR/PIK, 2010MUR/PIK2]
	FUS		43.5	434.5	DSC	[2009ACE/NIC]
	FUS		39.99	434	DSC	[2008BAS/BOS]
	FUS		38.4	433.1	DSC	[2007WAN/NOV]
	FUS		37.9	433	DSC	[2006WAS/HOL]
	FUS (I)		36.85	432.3		
	FUS (II)		32.94	426.2	DSC	[2004HAM/FEU]
	FUS		37.8	433	DSC	[2004LEG/FEU, 2007BER/WAS]
	FUS		39.46	432.6	DSC	[2001FOR/HEM]
	FUS (I)		36.13	429.2	DSC	
	FUS (II)		36.49	435.2	DSC	[2000HAN/PAR]
$C_{19}H_{16}F_8N_4O_2$	[91488-85-6]	*N*-ethyl-4-[(4-nitrophenyl)azo]-*N*-(2,2,3,3,4,4,5,5-octafluoropentyl)benzenamine				
	SUB		112.6			[1984KAR/ROD]
$C_{19}H_{16}F_8O_2$	[464213-30-7]	2,3-bis(trifluoromethyl)-4-methoxyphenyl-α,α-difluoro-4-*n*-propylbenzyl ether				
	FUS		21.3	301.4	DSC	[2002MIY/KAT]
$C_{11}H_{16}N_2O_3S$	[343829-78-7]	*N*-[4-[(phenylamino)sulfonyl]phenyl]benzamide				
	FUS		46.23	501.1	DSC	[2014LAH/KUD]
$C_{19}H_{16}O$	[76-84-6]	Triphenylmethanol				
	FUS		27.3	435.2	DSC	[2016DAV/GUE]
	FUS		27.24	441.1	DSC	[1998VER3]
	SUB	(342–358)	124.3 ± 3.2	298	ME	[2016DAV/GUE]
	SUB	(353–373)	122	363	A	[1987STE/MAL]
	SUB		121.8 ± 1.7	298	GS	[1998VER3, 1975PEP/LEB]
$C_{19}H_{16}O_2$	[160731-89-5]	2-fluorenyl-2-methyl-1,3-cyclopentandione				
	FUS		24.6	395.2	DSC	[1995NOL/VER]
	SUB	(353–388)	122.3 ± 1.6	371	T	[1995NOL/VER]
$C_{19}H_{16}O_5$	[111171-32-5]	8-(hydroxymethyl)-6-phenyl-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, ethyl ester				
	FUS		43.08	474.8	DSC	[1992HUA/ZHO2]
$C_{19}H_{17}ClN_2O$	[2955-38-6]	l-(cyclopropylmethyl)-5-phenyl-7-chloro-1,3-dihydro-2*H*-1,4-benzodiazepin-2-one (prazepam				
	FUS		27.69	419	DSC	[2001VER/AUG]
$C_{19}H_{17}F_3O$	[126315-23-9]	4-pentoxy-2′,3′,4′-trifluorodiphenylacetylene				
	FUS		33.1	315.8	DSC	[1995HSU/TSA]
$C_{19}H_{17}NOS$	[2398-96-1]	*N*-methyl-*N*-(3-methylphenyl)-1-(napthalene-2yloxy)methanethioamide (tolnaftate)				
	FUS		32.8	383.6	DSC	[2015NUR/BOO]
$C_{19}H_{17}NO_2$	[4946-83-2]	1-piperidinoanthraquinone				
	SUB	(383–392)	U 18.3	387.5	A	[1987STE/MAL, 1977EIB/TRO]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(395–404)	82.0	399	A	[1987STE/MAL]
$C_{19}H_{17}N_3O_2$	[61902-16-7]	Disperse Yellow 50				
	SUB	(464–484)	69.0	474	GS	[1989NIS/AND]
$C_{19}H_{18}ClN_3O_5S$	[366789-02-8]	5-chloro-*N*-[[(5S)-2-oxo-3-[4-(3-oxo-4-morpholinyl)phenyl]-5-oxazolidinyl] methyl]-2-thiophenecarboxamide (rivaroxaban)				
	FUS		46.9	508.55	DSC	[2016ZHA/FAN, 2016SUN/LIU]
$C_{19}H_{18}FNO_3$	[94611-29-7]	4-cyano-2-fluorophenyl 4-pentoxybenzoate				
	FUS		36.2	359.7	DSC	[1984KEL]
$C_{19}H_{18}FNO_3$	[94610-84-1]	4-cyano-3-fluorophenyl 4-pentoxybenzoate				
	FUS		37.7	341.2	DSC	[1984KEL]
$C_{19}H_{18}F_2$	[109970-66-3]	4-pentyl-3′,4′-difluorodiphenylacetylene				
	FUS		22.1	323.1	DSC	[1995HSU/TSA]
$C_{19}H_{18}NO_3P$	[33985-75-0]	*N*-(phenylmethyl)phosphoramidic acid, diphenyl ester				
	FUS		36.2	381.1	DSC	[2015WAN/DU]
$C_{19}H_{18}N_2O_3$	[1498-88-0]	1′,3′-dihydro-1′,3′,3′-trimethyl-6-nitrospiro[2*H*-1-benzopyran-2,2′-(2*H*)-indole]				
	FUS		34.0	453.1	AC, DC	[2004KUL/MAR]
$C_{19}H_{18}N_2O_3$	[28092-62-8]	(3a*S*,6a*R*)-tetrahydro-l,3-bis(phenylmethyl)-1*H*-fluoro[3,4-*d*]imidazole-2,4-dione				
	FUS		30.29	391.9	DSC	[2016SHI/QIA]
$C_{19}H_{18}O_2$	[160731-87-3]	2-diphenylmethyl-2-methyl-1,3-cyclopentandione				
	FUS		34.3	394.2		[1995NOL/VER]
	SUB	(355–393)	120.2 ± 1.1	374	T	[1995NOL/VER]
$C_{19}H_{18}O_3$	[568-72-9]	6,7,8,9-tetrahy dro-1,6,6-trimethylphenanthro[1,2-b] furan-10,11-dione				
	FUS		30.46	486.9		
	FUS		29.17	486	DSC	[1992HUA/ZHO, 1988HUA/TAN]
$C_{19}H_{18}O_4$	[17397-93-2]	6,7,8,9-tetrahydro-6-(hydroxymethyl)1,6-dimethylphenanthro-[1,2-b]-furan-10,11-dione				
	FUS		23.74	479.7	DSC	[1992HUA/ZHO]
$C_{19}H_{19}F$	[109970-64-1]	4-pentyl-4′-fluorodiphenylacetylene				
	FUS		25.6	337.4	DSC	[1995HSU/TSA]
$C_{19}H_{19}FO$	[139195-67-8]	4-pentoxy-4′-fluorodiphenylacetylene				
	FUS		27.2	330.9	DSC	[1995HSU/TSA]
$C_{19}H_{19}NO_2$	[483362-76-1]	1-[(4-nitrophenyl)ethynyl]-4-pentylbenzene				
	FUS		21.46	342.7	DSC	[2002SPA/DZI]
$C_{19}H_{19}NO_3$	[483362-80-7]	1-[(4-nitrophenyl)ethynyl]-4-pentyloxy benzene				
	FUS		33.56	359.9	DSC	[2002SPA/DZI]
$C_{19}H_{19}NO_4S$	[332140-29-1]	Ethyl 5-phenylsulfonyl-4,7-dihydro-4,7-ethano-2*H*-isoindole-1-carboxylate				
	FUS		29.8	453.3	DSC	[2000UNO/ITO]
$C_{19}H_{20}C1NO_4$	[41859-67-0]	2-[4-[2-[(4-chlorobenzoyl)amino]ethyl]phenoxy]-2-methyl-propanoic acid (benzofibrate)				
	FUS		53.9	458.0	DSC	[2009LEM/BAT]
$C_{19}H_{20}F_3N_3O_3$	[65847-85-0]	2-[3-(trifluoromethyl)-phenyl]amino-3-pyridinecarboxylic acid β-morpholino-ethyl ester (morniflumate)				
	FUS		34.5	350	DSC	[1996DOM/HEA, 1989PIN/GON]
$C_{19}H_{20}N_2O_2$	[50-33-9]	4-butyl-1,2-diphenyl-3,5-pyrazolidinedione (phenylbutazone)				
	FUS		54.27	379.9	DSC	[2011DOM/POB]
$C_{19}H_{20}O_2$	[137932-36-6]	3-diphenylmethyl-3-methyl-2,4-pentandione				
	FUS		25.1	352.2		[1995NOL/VER]
	SUB		114.4 ± 0.6	298	T, B	[1995NOL/VER]
	V	(353–386)	83.1 ± 0.5	370	GS	[1995NOL/VER]
$C_{19}H_{20}O_3$	[35825-57-11]	1,2,6,7,8,9-hexahydro-1,6,6-trimethylphenanthro[1,2-b]furan-10,11-dione				
	FUS		26.46	464.6	DSC	[1988HUA/TAN]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{19}H_{20}O_3$		1-(diphenylmethyl)-4-methyl-2,6,7-trioxabicyclo[2.2.2]octane				
	FUS		32.6	443.2		[1995RAK/VER2]
$C_{19}H_{20}O_4$	[85-68-7]	butyl benzyl phthalate				
	V		109.8 ± 2.6	298	CRT	[2015GOB/CHI]
	V		107.9 ± 0.9	298	CGC	[2015GOB/CHI]
	V		106.2 ± 2.4	298	CGC	[2014GOB/CHI]
	V	(416–516)	89.0	431	A	[1987STE/MAL]
$C_{19}H_{20}O_4$	[74254-53-8]	dibenzyl ethyl malonate				
	V	(403–483)	94.1	418	A	[1987STE/MAL]
$C_{19}H_{21}ClN_2O_3S$	[112529-15-4]	5-[[5-[2-(5-ethyl-2-pyridinyl)ethoxy]phenyl]methyl]-2,4-thiazolidinedione monohydrochloride				
	FUS		50.34	468.8	DSC	[2013TAO/SUN]
$C_{19}H_{21}F_{19}$	[139277-01-3]	1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluoro-2-(trifluoromethyl)octadecane				
	TRS		1.0	274		
	FUS		25.0	298	DSC	[1992HOP/MOL]
$C_{19}H_{21}IO_3S$	[313057-07-7]	4-(7-octenyloxy)phenyl 5-iodo-2-thiophene carboxylate				
	FUS		80.33	324.9	DSC	[2000WU/WAN]
$C_{19}H_{21}NO$	[127529-16-2]	(±)1,2-diphenyl-2-*N*-piperidinyl-1-ethanone				
	FUS		33.93	349.2		[1994WEL/VER]
	SUB		147.1 ± 1		B	[1994WEL/VER]
$C_{19}H_{21}NO_3$	[483362-65-8]	2-(4-nitrophenyl)-1-(4-pentylphenyl)ethanone				
	FUS		29.46	363.2	DSC	[2002SPA/DZI]
$C_{19}H_{21}NO_4$	[483362-69-2]	2-(4-nitrophenyl)-1-(4-pentyloxyphenyl)ethanone				
	FUS		27.07	353.4	DSC	[2002SPA/DZI]
$C_{19}H_{22}FN_3O$	[1649-18-9]	1-(4-fluorophenyl)-4-[4-(2-pyridinyl)-1-piperazinyl]-1-butanone (azaperone)				
	FUS		30.5	366.2	DSC	[1981DRA/AZI]
$C_{19}H_{22}F_8O_2$		2,3-bis(trifluoromethyl)-4-methoxyphenyl-*trans*-4-*n*-propyl-cyclohexyl-α,α-difluoromethyl ether				
	FUS		21.4	314.7		[2002MIY/KAT]
$C_{19}H_{23}NO$	[5219-49-8]	*p*-hexyloxybenzylideneaniline				
	TRS	(16–385)	0.19	73.41		
	FUS	(16–385)	30.91	321.6	AC	[1996DOM/HEA, 1982TSU/SOR]
$C_{19}H_{23}NO$	[29743-08-6]	4-butyl-*N*-[(4-ethoxyphenyl)methylene]benzenamine				
	SUB (crys)	(291–309)	30.0	309		[1981PIR/AZA]
[Note: The value is too small for an enthalpy of sublimation. The compound is likely not completely crystalline.]						
$C_{19}H_{23}N_3$	[33089-61-1]	*N*-methyl-*N*′-2,4-xylyl-*N*-(*N*-2,4-xylylformimodyl)formamidine (amitraz)				
	FUS (I)		26.77	355.3		
	FUS (II)		19.47	344.4		
	FUS (III)		53.14	388.6	DSC	[2004DEV/VAN]
$C_{19}H_{24}$	[25566-92-1]	dicumenylmethane				
	V	(303–402)	71	318		[1999DYK/SVO]
	V	(608–704)	57.9	623		[1999DYK/SVO]
	V	(323–402)	73.7	338	A	[1987STE/MAL, 1958MAT/GEL]
$C_{19}H_{24}N_2O_2$	[55268-74-1]	(±) 2-(cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4*H*-pyrazino-[2,1-a]isoqumolm-4-one ((±)praziquantel)				
	FUS		28.3	414.4	DSC	[2012RIB/AND]
	FUS		30.7	416.3	DSC	[2006PAS/ALB]
	FUS		25.73	409.4	DSC	[2004LIU/WAN]
	FUS		27.0	415.7	DSC	[1999DEL/TOR]
	FUS		30.8	412.2	DSC	[1998ELA/GIR]
$C_{19}H_{24}N_2O_2$	[57452-97-8]	(+) 2-(cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4*H*-pyrazino-[2,1-a]isoqumolm-4-one ((+) praziquantel)				
	FUS		23.9	386	DSC	[1998ELA/GIR]
$C_{19}H_{24}N_2O_2$	[57452-98-9]	(−) 2-(cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4*H*-pyrazino[2,1-a]-isoquinolin-4-one ((−)praziquantel)				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		18.48	383.8	DSC	[2004LIU/WAN]
	FUS		24.15	385.5	DSC	[1998ELA/GIR]
$C_{19}H_{24}O$	[1706-65-6]	2-*tert*-butyl-4-methyl-6-α-methylbenzylphenol				
	FUS		31.38	337.7	DTA	[1972INO/LIA]
$C_{19}H_{24}O_3$	[104225-35-6]	3-[(2,3-dihydro-1*H*-inden-5-yl)carbonyl]-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		22.5	404.3	DSC	[1992TER/PAU]
$C_{19}H_{24}O_3$		Pentyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		28.0	324.5	DSC	[1994WEB/MEY]
$C_{19}H_{26}O_2$	[63-05-8]	Androst-4-ene-3,17-dione				
	FUS		25.70	444.54	DSC	[2014TAN/XIE, 2014TAN/WAN]
$C_{19}H_{26}O_4$	[104225-25-4]	3-(4-methoxy-2,6-dimethylbenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		28.31	416.7	DSC	[1992TER/PAU]
$C_{19}H_{26}O_6$	[104225-20-9]	1,2,2-trimethyl-3-(2,4,6-trimethoxybenzoyl)cyclopentanecarboxylic acid				
	FUS		29.68	432.2	DSC	[1992TER/PAU]
$C_{19}H_{27}NO_2S$	[710333-37-2]	*N*-(3,5-dimethyladamantan-1-yl)-4-methylbenzenesulfonamide				
	FUS		29.6	435.5	DSC	[2016PER/VOL]
	SUB	(375–401)	108.8 ± 1.8	388	GS	[2016PER/VOL]
	SUB	(375–401)	115.1 ± 1.8	298	GS	[2016PER/VOL]
$C_{19}H_{27}NO_3$	[172589-18-3]	3-[(3,4-dimethylphenyl)(hydroxyimino)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid mel ester				
	FUS		39.14	426	DSC	[1995NUR/LEL]
$C_{19}H_{27}NO_3$	[105816-04-4]	*N*-[[*trans*-4-(1-methylethyl)cyclohexyl]carbonyl]-*D*-phenylalanine (nateglinide)				
	FUS (I)		28.4	402.1		
	FUS (II)		30.5	411.1	DSC	[2011BRU/BER]
$C_{19}H_{27}NO_4$	[172589-21-8]	3-[(hydroxyimino)(4-ethoxyphenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	FUS		36.75	401	DSC	[1995NUR/LEL]
$C_{19}H_{27}NO_4$	[252013-92-6]	(R)-β-cyano-3,4-dimethoxy-α,α-dimethyl-β-(1-methylethyl)benzenepropanoic acid,ethyl ester				
	FUS		36.9	386.4	DSC	[2003ROU/JIM2]
	FUS		36.82	386.2		[1999ROS/MOL]
$C_{19}H_{27}NO_5$	[172589-23-0]	3-[(hydroxyimino)(3,4-dimethoxyphenyl)methyl]-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	FUS		36.2	393	DSC	[1995NUR/LEL]
$C_{19}H_{27}N_3O_8$	[53848-87-6]	Dodecyl 2,4,6-trinitrobenzoate				
	TRS		7.64	325		
	FUS		29.55	394	DSC	[1974WAR/WIL]
$C_{19}H_{28}N_2$	[137274-47-6]	4-(4-heptyl-1-piperidinyl)benzonitrile				
	FUS		29.01	326.2	DSC	[1991SHE/WEI]
$C_{19}H_{28}O_2$	[58-22-0]	Testosterone				
	FUS		28.2	426.5	DSC	[2006WAS/HOL]
	FUS		29.45	428		[1994REG/CHM]
	FUS		21.3		DSC	[1983GHA/JAM]
	FUS		25.7	427.1		[1981CHA/PER]
$C_{19}H_{29}BrN_2O_4$	[138517-08-5]	(4-nitrophenyl)-12-bromododecyl carbamate				
	FUS		48.94	373.5	DSC	[1993TIE/FRA]
$C_{19}H_{30}$	[55030-46-1]	7-phenyl-6-tridecene				
	V	(391–449)	77.2	406	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{30}O_2$	[521-18-6]	5α-androstane-3-one-17β-ol				
	FUS (I)		27.15	455.5	DSC	[1996DOM/HEA, 1989MAS/DEM]
	FUS (II)		23.07	454.2		
	FUS (III)		19.79	453.0	DSC	[1989MAS/DEM]
$C_{19}H_{31}N_3O_3$	[138517-13-2]	1-dodecyl-3-(4-nitrophenyl) urea				
	FUS		40.88	390.8	DSC	[1993TIE/FRA]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{19}H_{32}$	[123-02-4]	Tridecylbenzene				
	V	(473–651)	72.0	488		[1999DYK/SVO]
	V	(343–463)	90.0	358		[1990POM/PIA]
	V		94.6	298		[1971WIL/ZWO]
$C_{19}H_{32}$	[2400-01-3]	7-phenyltridecane				
	V	(413–470)	76.2	428	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{32}O_2$	[301-00-8]	Methyl linolenate				
	V		110.5 ± 0.5	298	CGC	[2007LIP/KAP]
	V	(423–503)	102.1	298	GC	[1997KRO/VEL]
	V	(394–459)	87.7	409	A, MG, OM	[1987STE/MAL, 1952SCO/MAC]
$C_{19}H_{32}O_3$	[1422829-46-6]	Dipivaloyl(3-cyclopentylpropanoyl)methane				
	TRS		3.38	252.4	DSC	[2013STI/KAI]
$C_{19}H_{34}$	[1610-24-8]	Tricyclohexylmethane				
	SUB	(301–321)	117.4	311	A	[1987STE/MAL, 1964MOR]
	V	(333–365)	81.4	348	A	[1987STE/MAL, 1964MOR]
	V	(428–605)	73.3	443	A	[1987STE/MAL]
$C_{19}H_{34}O$	[17687-74-0]	Tricyclohexylmethanol				
	FUS		23.8	367.2	AC	[2007YAM/SAI]
$C_{19}H_{34}O_2$	[112-62-9]	Linoleic acid, methyl ester (methyl linoleate)				
	V		107.8 ± 0.6	298	CGC	[2007LIP/KAP]
	V	(423–503)	102.2	298	GC	[1997KRO/VEL]
	V	(453–543)	77.2	498	GC	[1993HUS/SAR]
	V	(391–459)	86.3	406	A, MG, OM	[1987STE/MAL, 1952SCO/MAC]
$C_{19}H_{36}$	[2090-15-5]	1,1-dicyclohexylheptane				
	V	(293–368)	87.8	330	A	[1987STE/MAL, 1999DYK/SVO]
	V	(422–458)	73.8	437	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{36}$	[26186-01-6]	1-nonadecyne				
	V	(462–637)	66.9	477		[1999DYK/SVO]
$C_{19}H_{36}$	[61847-98-1]	2-nonadecyne				
	V	(469–648)	67.8	484		[1999DYK/SVO]
$C_{19}H_{36}$	[61886-65-5]	3-nonadecyne				
	V	(460–635)	66.5	475		[1999DYK/SVO]
$C_{19}H_{36}O$	[6907-38-6]	Cyclononadecanone				
	SUB		82.4			[1938WOL/WEG, 1960JON]
$C_{19}H_{36}O_2$	[112-62-9]	Methyl *cis*-9-octadecenoate (methyl oleate)				
	V		106.2 ± 0.7	298	CGC	[2007LIP/KAP]
	V	(423–503)	103.3	298	GC	[1997KRO/VEL]
	V	(433–473)	99.6	298	CGC	[1995CHI/HOS]
	V	(453–543)	77.2	498	GC	[1993HUS/SAR]
	V		106.8 ± 1.0	298	GCC	[1980FUC/PEA]
	V	(428–486)	83.0	443	A	[1987STE/MAL, 1964ROS/SCH]
	V	(401–458)	86.7	416	MG, OM	[1952SCO/MAC]
$C_{19}H_{36}O_2$	[1937-62-8]	Methyl elaidate				
	V	(453–543)	77.2	498	GC	[1993HUS/SAR]
$C_{19}H_{36}O_2$	[43211-62-7]	Allyl hexadecanoate				
	FUS		49.4	295.6	DSC	[1992BAB/HWA2]
$C_{19}H_{36}O_3$	[141-24-2]	Methyl ricinoleate				
	V	(453–543)	89.3	498	GC	[1993HUS/SAR]
$C_{19}H_{36}O_4$	[1429-66-9]	(2-hydroxy-3-octanoyloxypropyl) octanoate				
	V	(512–567)	107	540	DSC	[2014DAM/MAT]

[Note: The CAS Registry Number of [36354-80-0] given by the authors of [2014DAM/MAT] is not consistent with the IUPAC chemical name in the paper.]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{19}H_{36}O_5$		Undecyl[1-(butoxycarbonyl)ethyl]carbonate				
	V	(438–637)	77.0	453	A	[1987STE/MAL, 1950REH/DIX2]
$C_{19}H_{37}NO$	[112-96-9]	Octadecyl isocyanate				
	V	(388–494)	77.8	403	A	[1987STE/MAL, 1974ZHU/KON]
$C_{19}H_{37}NO_3$		2-[2-ethyl-(hexanoyloxy)]-*N*,*N*-dibutylpropionamide				
	V	(403–448)	83.0	418	A	[1987STE/MAL]
$C_{19}H_{37}NO_3$	[56255-31-3]	*N*-hexadecanoyl-(*l*)-alanine				
	FUS		65.3	374.1	DSC	[1986MIY/MAT]
$C_{19}H_{37}NO_3$	[14379-30-7]	*N*-tetradecanoyl-(*l*)-valine				
	TRS		14.9	44.53		
	FUS		20.6	365.1	DSC	[1986MIY/MAT]
$C_{19}H_{37}NO_3$	[83871-19-6]	*N*-tetradecanoyl-(*dl*)-valine				
	FUS		68.1	370.1	DSC	[1986MIY/MAT]
$C_{19}H_{37}NO_3$	[83871-10-7]	*N*-(1-oxoheptadecyl)glycine				
	TRS + FUS		50.29	397.8	DSC	[2014RED/KRO]
$C_{19}H_{38}$	[6006-33-3]	Tridecylcyclohexane				
	V	(474–651)	72.2	489		[1999DYK/SVO]
	V		94.5	298		[1971WIL/ZWO]
$C_{19}H_{38}$	[13151-92-3]	7-cyclohexyltridecane				
	V	(391–449)	75.6	406	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{38}$	[1795-22-8]	Tetradecylcyclopentane				
	V	(475–648)	73.6	490		[1999DYK/SVO]
	V		95.4	298		[1971WIL/ZWO]
$C_{19}H_{38}$	[55044-77-4]	7-(cyclopentylmethyl)tridecane				
	V	(389–446)	76.5	404	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{19}H_{38}$	[18435-45-5]	1-nonadecene				
	FUS		34.9	296.5	DSC	[1992BAB/HWA, 1994BAB/BEN]
	V	(560–604)	63.3	575	A	[1987STE/MAL]
	V		95	298		[1971WIL/ZWO]
$C_{19}H_{38}O$	[629-66-3]	2-nonadecanone				
	FUS		68.65	328	DSC	[1993VIL/HAM]
$C_{19}H_{38}O$	[504-57-4]	10-nonadecanone				
	FUS		66.67	330	DSC	[1993RUE/SAR, 1993VIL/HAM]
$C_{19}H_{38}O_2$	[112-61-8]	Methyl stearate				
	FUS		62.97	310.59	DSC	[2013BEN/KHI]
	FUS		61.7	310.9	DSC	[2004CHI/ZHA]
	FUS		71.1	311	DSC	[2003NIK/MAR]
	FUS		62.1	311.2	DSC	[2003SUP/GOF]
	FUS		U48.0	310.2	DSC	[1992BAB/HWA2]
	FUS		64.4	310	Cryst	[1936KIN/GAR]
	SUB	(299–310)	158.2 ± 2.5	304		[1965DAV/KYB, 1987STE/MAL]
	V		107.9 ± 4.2	298	CRT	[2015GOB/CHI]
	V	(323–383)	90.2	353	TGA	[2012VER/RAL]
	V	(323–383)	106.9 ± 0.5	298	TGA	[2012VER/RAL]
	V	(467–558)	109.5 ± 2.7	298	CGC	[2004CHI/ZHA]
	V		98	350	CE	[2002VAN/VAN]
	V		90.0 ± 0.3	401	Spin rotor manom	[2002VAN/VAN]
	V		105.9 ± 1.4	298	CE	[2002VAN/VAN]
	V	(463–523)	106.2	298	GC	[1997KRO/VEL]
	V	(453–543)	75.4	498	GC	[1993HUS/SAR]
	V	(427–484)	83.2	442	A	[1987STE/MAL, 1964ROS/SCH]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{19}H_{38}O_2$	[14010-23-2]	Ethyl margarate (ethyl heptadecanoate)				
	TRS		16.57	291.2		
	FUS		36.2	298.4	Cryst	[1936KIN/GAR]
$C_{19}H_{38}O_2$	[2239-78-3]	Propyl palmitate				
	V	(439–477)	74.5	454	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{19}H_{38}O_2$	[142-91-6]	Isopropyl palmitate				
	V	(433–471)	73.6	448	A	[1987STE/MAL, 1948BON/ATH, 1984BOU/FRI]
$C_{19}H_{38}O_2$	[646-30-0]	Nonadecanoic acid				
	TRS		7.4	339		
	FUS		57.0	340.4	DSC	[2007GBA/NEG]
	TRS	(90–355)	9.17	338		
	FUS	(90–355)	57.62	341.2	AC	[1996DOM/HEA, 1982SCH/VAN2]
	SUB	(298–315)	143.6		TPTD	[2005CHA/ZIE]
[Note: Experimental values based on the TPTD and TPD method are often inconsistent with values determined using other experimental methods.]						
	SUB		198.7 ± 5			[1968BAC/NOV, 1970COX/PIL]
	V		138.0 ± 6.8	298	CGC	[2013WIL/CHI]
	V	(511–659)	94.4	526	A	[1987STE/MAL]
	V	(371–394)	121.8	386	ME, TE	[1982DEK/SCH]
$C_{19}H_{38}O_3$	[35274-05-6]	Hexadecyl lactate				
	V	(405–556)	90.5	420	A	[1987STE/MAL, 1950REH/DIX]
$C_{19}H_{38}O_3$	[94434-74-9]	3-octyloxypropionic acid, octyl ester				
	V	(443–513)	73.6	458	A	[1987STE/MAL]
$C_{19}H_{39}Br$	[4434-66-6]	1-bromononadecane				
	V	(493–673)	77.9	508	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{19}H_{39}Cl$	[62016-76-6]	1-chlorononadecane				
	V		114.7	298		[2006BOL/NER2]
	V	(483-673)	76.3	498	A	[1987STE/MAL, 1970DYK/VAN]
$C_{19}H_{39}F$	[1480-63-3]	1-fluorononadecane				
	V	(458–648)	72.5	473	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{19}H_{39}I$	[62127-51-9]	1-iodononadecane				
	V	(506–673)	113.8	298	A, E	[1987STE/MAL, 1961LI/ROS, 2006BOL/NER]
	V	(506-673)	79.1	521	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{19}H_{39}NO_2$	[6280-24-6]	*N*-hexadecyl lactamide				
	V	(423–508)	111	438	A	[1987STE/MAL, 1950RAT]
$C_{19}H_{39}NO_2$	[5392-36-9]	*N*,*N*-dioctyl lactamide				
	V	(453–488)	99.3	468	A	[1987STE/MAL, 1953FEI/FIL]
$C_{19}H_{40}$	[629-92-5]	Nonadecane				
	TRS		11.20	295.0		
	FUS		44.61	304.4	DSC	[2015VEL/ORT]
	TRS		13.97	295.4		
	FUS		48.94	304.3	DSC	[2005HUA/SIM]
	TRS		12.7	294.8		
	FUS		42.7	304.4	DSC	[2004MON/RAJ]
	TRS		12.7	294.8		
	FUS		42.7	304.5	DSC	[1996ROB/ESP]
	TRS		13.75	296.1		
	FUS		43.75	305.1		[1991BAR/SCH]
	TRS		13.67	296.0		
	FUS		47.4	305.3		[1996DOM/HEA, 1979CLA/LET]
	TRS		13.81	296.0		
	FUS		45.81	305.2	AC	[1955SCH/BUS]
	SUB		143.6	298	C	[1972MOR3]
	SUB	(288–303)	136.6	296		[1964MOR]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(423–588)	76.2	438		[1994MOR/KOB]
	V		96.4	298		[1994RUZ/MAJ]
	V	(456–606)	73.0	471	A	[1987STE/MAL]
	V		95.8	298		[1971WIL/ZWO]
$C_{19}H_{40}$	[1560-88-9]	2-methyloctadecane				
	V	(451–595)	67.5	466	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[6561-44-0]	3-methyloctadecane				
	V	(455–597)	69.2	470	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[10544-95-3]	4-methyloctadecane				
	V	(445–596)	63.3	460	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[25117-35-5]	5-methyloctadecane				
	V	(445–595)	63.8	460	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[61868-03-9]	5-methyloctadecane				
	V	(447–598)	64.1	462		[1999DYK/SVO, 1959TER/BRI]
	V	(493–598)	67.2	508	A	[1987STE/MAL]
$C_{19}H_{40}$	[61868-09-5]	2,4-dimethylheptadecane				
	V	(444–574)	70.6	459	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[102013-94-5]	2,4-dimethylheptadecane				
	V	(435–568)	67.3	450	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{19}H_{40}$	[7225-66-3]	7-hexyltridecane				
	V	(411–444)	75.2	426	A	[1987STE/MAL]
$C_{19}H_{40}O$	[1454-84-8]	1-nonadecanol				
	FUS		43.3	333.9	DSC	[2004VEN/CAL]
	TRS		29.1	329.7		
	FUS		43.3	333.9	DSC	[2002VEN/RAM]
	FUS		72.42	334.5		[2001VAN/OON2]
[Note: The value includes the enthalpy of a solid/solid transition that occurs at about 331 K.]						
	V	(479–640)	81.7	494	A	[1987STE/MAL]
	V	(494–635)	80.0	509	A	[1987STE/MAL]
$C_{19}H_{40}O_2$	[7268-65-7]	1,19-nonadecanediol				
	TRS		37.1	358.9		
	FUS		35.7	373.9	DSC	[1999OGA/NAK]
$C_{19}H_{40}S$	[53193-23-0]	1-nonadecanethiol				
	V	(502–682)	79.2	517	E	[1999DYK/SVO]
$C_{19}H_{41}N$	[14130-05-3]	Nonadecylamine				
	V	(532–647)	72.7	547	A, E	[1987STE/MAL, 1956MAN2]
$C_{20}D_{12}$	[1520-96-3]	Perylene-d_{12}				
	V		119.5	298	CGC	[2008ZHA/UNH]
$C_{20}F_{42}$	[37589-57-4]	Perfluoroeicosane				
	FUS		50.3	436.2	DSC	[2012HAS/DRA]
	FUS		49.4	437.4	DSC	[1999VIS/TER]
	TRS		1.36	150.8		
	TRS		10.0	200.0		
	FUS		53.5	436.9	DSC	[1994JIN/BOL]
	TRS		0.67	149.5		
	TRS		11.25	202.9		
	FUS		U 80.33	437.9	DSC	[1986STA]
	V		113.7 ± 1.6	298	CGC	[2012HAS/DRA]
$C_{20}H_4Cl_4F_{13}NO_2$	[433932-34-4]	4,5,6,7-dichloro-2-(4-*n*-tridecafluorohexylphenyl)isoindole-1,3-dione				
	FUS		45.1	512.8	DSC	[2002JOW/DIN]
$C_{20}H_6Cl_2F_{13}NO_2$	[433932-32-2]	5,6-dichloro-2-(4-*n*-tridecafluorohexylphenyl)isoindole-1,3-dione				
	FUS		40.7	459.6	DSC	[2002JOW/DIN]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_6Cl_2F_{13}NO_2$	[433932-33-3]	4,7-dichloro-2-(4-*n*-tridecafluorohexylphenyl)isoindole-1,3-dione				
	TRS		18.4	413.2		
	FUS		19.9	417.2	DSC	[2002JOW/DIN]
$C_{20}H_{10}$	[5821-51-2]	Corannulene				
	FUS		17.3	542.3	DSC	[2002CHI/WEB]
	SUB	(390–425)	115.8	408	HSA	[2002CHI/WEB]
	SUB	(390–425)	119.5 ± 4.4	298	HSA	[2002CHI/WEB]
	SUB		116.3 ± 6.0	298	CGC+ Fus	[2002CHI/WEB]
	V		115.5 ± 2.5	298	CGC	[2002CHI/WEB]
$C_{20}H_{11}Br_2NO_2$	[158749-50-9]	2,6-dibromophenyl acridine-9-carboxylate				
	FUS		31.9	432	DSC	[2010ZAD/KRZ]
$C_{20}H_{11}Cl_2NO_2$	[158749-41-8]	2,6-dichlorophenyl acridine-9-carboxylate				
	FUS		28.5	418	DSC	[2010ZAD/KRZ]
$C_{20}H_{11}F_2NO_2$	[186801-72-9]	2,6-difluorophenyl acridine-9-carboxylate				
	FUS		34.3	467	DSC	[2010ZAD/KRZ]
$C_{20}H_{11}F_{14}N_3$	[502455-01-8]	2,2,3,3,4,4,4-heptafluoro-*N*-[2,2,3,3,4,4,4-heptafluoro-1-(phenylamino)-butylidene]-*N*′-phenylbutanimidamide				
	FUS		31.3	361		[2003SIE/WEB]
$C_{20}H_{11}NO_2$	[63041-90-7]	6-nitrobenzo[*a*]pyrene				
	FUS		30.2	528.4	DSC	[2010KES/AUC]
$C_{20}H_{12}$	[198-55-0]	Perylene				
	FUS		32.58	551.3	DTA	[1992SAB/ELW3]
	FUS	(5–578)	31.88	550.9	AC	[1996DOM/HEA, 1993ACR, 1980WON/WES]
	FUS		31.76	553.9	DSC	[1973CAS/VEC]
	SUB	(390–432)	126.2 ± 0.82	411	ME	[2008GOL/SUU3]
	SUB	(391–424)	132.6 ± 3.6	408	ME	[1998OJA/SUU]
	SUB	(313–453)	123.2	383	GS	[1995NAS/LEN]
	SUB	(443–518)	145.2 ± 2.5	298	C, ME	[1973GIG/MAL]
	SUB		125.5 ± 4.2	298	ME	[1967WAK/INO, 1970COX/PIL]
	SUB	(383–453)	139	418		[1958HOY/PEP, 1987STE/MAL]
	SUB		129.6 ± 2.1	415	ME	[1952INO/SHI]
	SUB		121.3	370	ME	[1951INO]
	V		119.5	298	CGC	[2008ZHA/UNH]
	V		123.1 ± 1.7	298	CGC	[2002CHI/WEB]
	V	(323–473)	89.9	398	GC	[2002LEI/CHA]
$C_{20}H_{12}$	[50-32-8]	Benzo[*a*]pyrene				
	FUS		11.25	449	DSC	[2010RIC/SUU, 2011RIC/FU]
	FUS		14.7	451.8	DSC	[2010KES/AUC]
	FUS		13.32	447.6	DSC	[2008MOG/SEP]
	FUS		15.1	451.2	DSC	[1995HAI/SAN]
	TRS		8.49	390.2		
	FUS		17.32	454.2	DSC	[1991ACR, 1973CAS/VEC]
	SUB	(398–430)	116.2 ± 7.5		ME	[2011RIC/FU]
	SUB	(358–428)	116.2	393	ME	[2010RIC/SUU]
	SUB	(392–424)	113.3 ± 3.1	408	ME	[2008GOL/SUU3]
	SUB	(313–453)	122.5	383	GS	[1995NAS/LEN]
	SUB	(358–431)	118.3	373	ME	[1987STE/MAL, 1974MUR/POL]
	V		117.8 ± 1.0	298	CGC	[2008HAN/NUT]
	V	(463–523)	105.0 ± 1.5	298	GC	[2006HAF/PAR]
	V	(323–473)	91	398	GC	[2002LEI/CHA]
	V	(343–453)	95.5	398	GC	[1990HIN/BID2]
$C_{20}H_{12}$	[192-97-2]	Benzo[*e*]pyrene				
	FUS		13.8	451.3	DSC	[2010KES/AUC]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		2.51	426.2		
	FUS		16.57	454.4	DSC	[1991ACR, 1973CAS/VEC]
	SUB	(313–453)	117.9	383	GS	[1995NAS/LEN]
	SUB	(359–423)	119.1	373	ME	[1987STE/MAL, 1974MUR/POL]
	V		118.2 ± 0.3	298	CGC	[2008HAN/NUT]
	V	(463–523)	105.0 ± 1.5	298	GC	[2006HAF/PAR]
	V	(343–453)	92	398	GC	[1990HIN/BID2]
$C_{20}H_{12}$	[207-08-9]	Benzo[*k*]fluoranthene				
	FUS		26.5		DSC	[2011FU/SUU]
	FUS		32.4	489.7	DSC	[2010KES/AUC]
	FUS		27.5	490.6		[2002DIO/MIN]
	SUB	(384–424)	121.5 ± 3.3		ME	[2011FU/SUU]
	SUB	(387–423)	124.2 ± 4.7	298	ME	[2002DIO/MIN]
	SUB	(363–430)	130	378	A	[1987STE/MAL]
	SUB		120 ± 10		TE	[1983FER/QUA]
	V		117.4 ± 1.1	298	CGC	[2008HAN/NUT]
	V	(463–513)	105.5 ± 1.5	298	GC	[2006HAF/PAR]
	V	(323–473)	88.5	398	GC	[2002LEI/CHA]
$C_{20}H_{12}$	[205-99-2]	Benzo[*b*]fluoranthene				
	FUS		18.3		DSC	[2011FU/SUU]
	FUS		19.6	441.5	DSC	[2010KES/AUC]
	SUB	(364–414)	118.8 ± 0.8		ME	[2011FU/SUU]
	SUB	(313–453)	119.2	383	GS	[1995NAS/LEN]
	V		116.8 ± 1.6	298	CGC	[2008HAN/NUT]
	V	(463–513)	104.0 ± 1.5	298	GC	[2006HAF/PAR]
	V	(323–473)	89.7	398	GC	[2002LEI/CHA]
$C_{20}H_{12}$	[205-82-3]	benzo[*j*]fluoranthene				
	FUS		17.9	438.3	DSC	[2010KES/AUC]
$C_{20}H_{12}BrNO_4$	[59722-76-8]	1-amino-2-(4-bromophenoxy)-4-hydroxy-9,10-anthraquinone				
	SUB	(473–543)	163.6	413		[1978NIS/ISH]
$C_{20}H_{12}FNO_2$	[1228096-41-0]	2-fluorophenyl acridine-9-carboxylate				
	FUS		28.1	437	DSC	[2010ZAD/KRZ]
$C_{20}H_{12}INO_2$	[1268261-57-9]	2-iodophenyl acridine-9-carboxylate				
	FUS		32.4	438	DSC	[2010ZAD/KRZ]
$C_{20}H_{12}N_2O_4$	[1093974-11-8]	2-nitrophenyl acridine-9-carboxylate				
	FUS		24.4	422	DSC	[2010ZAD/KRZ]
$C_{20}H_{12}O$	[13345-21-6]	3-hydroxybenzo[*a*]pyrene				
	FUS		24.1	469.6	DSC	[2010KES/AUC]
$C_2OH_{13}N$	[194-59-2]	7*H*-dibenzo[*c*, *g*]carbazole				
	FUS		20.1	429.8	DSC	[2010KES/AUC]
$C_{20}H_{13}NO_2$	[109392-90-7]	Phenyl acridine-9-carboxylate				
	FUS		39.2	464	DSC	[2010KRZ/MAL]
$C_{20}H_{13}NO_4$	[17418-58-5]	1-amino-4-hydroxy-2-phenoxy-9,10-anthraquinone (Disperse Red 60)				
	FUS		30.79	458.2		[1991BAU/WEB]
	SUB	(423–448)	104.9	436	GC	[2002SAW/SHI]
	SUB	(359–366)	152.5	362.5	A	[1987STE/MAL, 1977EIB/TRO]
[Note: The temperature interval covered in [1987STE/MAL] may be too small for an accurate $\Delta_{Sub}H$ determination.]						
	SUB		141.8			[1984KAR/KRU]
	SUB	(373–453)	103.8	413		[1978NIS/ISH]
$C_{20}H_{13}N_5O_3$	[194785-03-0]	1-(2′-nitrobenzylidene)-2-phenazinoylhydrazine				
	FUS		47.47	540.2	DSC	[1997CIO/MEL]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{13}N_5O_3$	[194785-02-9]	1-(4′-nitrobenzylidene)-2-phenazinoylhydrazine				
	FUS		44.8	548.2	DSC	[1997CIO/MEL]
$C_{20}H_{14}$	[602-55-1]	9-phenylanthracene				
	FUS		25.5	427.6	DSC	[1979FAR/SHA]
	SUB	(313–453)	118.7	383	GS	[1995NAS/LEN]
	SUB	(352–395)	119.7		TE	[1974SHI/GRE]
	SUB	(353–426)	115.3	368		[1958KLO]
	V	(323–473)	91.6	398	GC	[2002LEI/CHA]
	V	(430–510)	84.4	445	A	[1987STE/MAL]
	V	(435–513)	86.2	450		[1999DYK/SVO, 1974SHI/GRE]
$C_{20}H_{14}$	[477-75-8]	9,10-dihydro-9,10-(1′,2′) benzoanthracene (tryptycene)				
	FUS	(5–550)	30.29	527.2	AC	[1996DOM/HEA, 1970AND/WES2]
	SUB		104.6 ± 12.6			[1973ROD/WES, 1977PED/RYL]
$C_{20}H_{14}$	[11068-27-2]	Binaphthalene				
	SUB	(313–453)	138.3	383	GS	[1995NAS/LEN]
$C_{20}H_{14}$	[604-53-5]	1,1′-binaphthyl				
	FUS		19.2	431.2	DSC	[2005SAI/MAR]
	FUS (I)		30.5	418.2		
	FUS (II)		23.7	431.2	DSC	[1975WIL/PIN]
$C_{20}H_{14}$	[612-78-2]	β,β′-binaphthyl				
	FUS		38.9	461.2	DSC	[1996DOM/HEA, 1979FAR/SHA]
$C_{20}H_{14}N_2$	[1631994-28-9]	(*Z*)-2-phenyl-3-(4-(pyridine-2-yl)phenyl)acrylonitrile				
	FUS (triclinic)		83.1	392.7		
	FUS (orthorhombic)		97.5	391.7	DSC	[2014PER/CER]
$C_{20}H_{14}N_2O_2$	[4395-65-7]	1-anilino-4-aminoanthraquinone				
	SUB		138.6			[1984KAR/KRU]
	SUB	(473–553)	135.1		GS	[1977NIS/ISH, 1978NIS/ISH]
$C_{20}H_{14}N_2O_4$	[56405-27-7]	1-amino-2-(4-aminophenoxy)-4-hydroxy-9,10-anthraquinone				
	SUB	(373–453)	U50.2	413		[1978NIS/ISH]
$C_{20}H_{14}N_4$	[101-60-0]	21*H*,23*H*-porphine				
	SUB	(424–507)	87 ± 3		F	[2004STE/STI]
$C_{20}H_{14}N_4O$	[194784-97-9]	1-benzylidene-2-phenazinoylhydrazine				
	FUS		45.76	512.1	DSC	[1997CIO/MEL]
$C_{20}H_{14}O$	[5471-63-6]	1,3-diphenylisobenzofuran				
	SUB		129.3 ± 3.0			[1985KIS/VEI]
$C_{20}H_{14}O_4$	[94-01-9]	Dibenzoyl resorcinol				
	SUB	(323–399)	165.8	338	A	[1987STE/MAL]
	V	(399–493)	76.0	414	A, UV	[1987STE/MAL, 1960SCH/HIR]
$C_{20}H_{14}O_4$	[77-09-8]	Phenolphthalein				
	FUS		51.05	534		[1996DOM/HEA, 1984GRA/AVR]
$C_{20}H_{15}BrN_4O_6$	[235114-51-9]	3,5-dinitro-4-(4-methoxyphenyl)aminobenzoyl (4-bromophenyl)amide				
	FUS		50.67	522.5		[1999KOR/LEV]
$C_{20}H_{15}BrN_4O_6$	[235114-52-0]	3,5-dinitro-2-(4-methoxyphenyl)aminobenzoyl (4-bromophenyl)amide				
	FUS		38.0	478.9		[1999KOR/LEV]
$C_{20}H_{15}F_3$	[68643-31-2]	1,1,1-trifluoro-2,2,2-triphenylethane				
	FUS		30.33	440.3		[1997SCH/VER]
	SUB		112.3 ± 1.0	298		[1997SCH/VER]
$C_{20}H_{15}F_3O$	[145698-50-6]	4-propoxy-4′-trifluoromethyldiphenyldiacetylene				
	FUS		18.81	315.9	DSC	[1993JUA/CHE]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{15}O_5P$	[803-19-0]	bis(4-carboxyphenyl)phenylphosphine oxide				
	FUS		17.6	610.6	DSC	[2000WAN/WAN]
$C_{20}H_{16}$	[58-72-0]	Triphenylethylene				
	FUS		20.58	339.9	DSC	[1999VER/EBE]
	FUS	(6–354)	20.35	341	AC	[1998HIK/OKA]
	SUB	(323–339)	110.1 ± 1.9	331	GS	[1999VER/EBE]
	SUB	(323–339)	112.2 ± 1.9	298	GS	[1999VER/EBE]
	V	(346–377)	88.0 ± 0.9	362	GS	[1999VER/EBE]
	V	(346–377)	91.8 ± 0.9	298	GS	[1999VER/EBE]
	V	(353–443)	89.7	398		[1989SAS/NGU]
$C_{20}H_{16}$	[313-74-6]	7,12-dimethylbenz[*a*]anthracene				
	SUB	(379–390)	135		A	[1987STE/MAL, 1964KEL/RIC]
	V	(323–473)	88.9	398	GC	[2002LEI/CHA]
	V	(396–408)	112.9	402	A, ME	[1987STE/MAL, 1964RAT/SHR, 1999DYK/SVO]
	V	(379–396)	107.8		A	[1987STE/MAL, 1964KEL/RIC]
$C_{20}H_{16}$	[3697-27-6]	5,6-dimethylchrysene				
	SUB		130 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
	SUB		134 ± 1.3			[1966GEI/QUI, 1970COX/PIL]
	SUB	(379–408)	135 ± 2.4	394	ME	[1964KEL/RIC]
	V	(380–394)	121.7	387	A	[1987STE/MAL]
$C_{20}H_{16}$	[313-74-6]	1′,9-dimethyl-1,2-benzanthracene				
	SUB		112.5 ± 3.3		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{20}H_{16}$	[316-51-8]	3′,6-dimethyl-1,2-benzanthracene				
	SUB		112.5 ± 3.3		ME	[1965KAR/KYB, 1970COX/PIL]
$C_{20}H_{16}F_2$	[145698-36-8]	4-*n*-butyl-3′,4′-difluorodiphenyldiacetylene				
	FUS		24.33	340.8	DSC	[1993JUA/CHE]
$C_{20}H_{16}N_2O_5$	[19685-09-7]	20-(*S*)-10-hydroxycamptothecin				
	FUS		53.38	467.2	DSC	[2010KUN/SAV]
$C_{20}H_{16}O_2$	[595-91-5]	Triphenylacetic acid				
	SUB	(419–437)	145.5 ± 0.9	411	ME	[2011MON/SOU]
	SUB	(419–437)	152.2 ± 0.9	298	ME	[2011MON/SOU]
$C_{20}H_{16}O_4S_2$	[3263-31-8]	6-ethoxy-2-(6-ethoxy-3-oxobenzo[*b*]thien-2(3*H*)-ylidene)benzo[*b*]-thiophen-3(2*H*)-one (C.I. Vat Orange 5)				
	SUB	(519–634)	65	577	GS	[1986NIS/AND]
$C_{20}H_{17}FO_3S$	[38194-50-2]	(*Z*)-5-fluoro-2-methyl-1-[*p*-(methylsulfinyl)benzylidene]indene-3-acetic acid (sulindac)				
	FUS (I)		30.3	465		
	FUS (II)		22.8	459	DSC	[2016CAV/TAR]
	FUS		33.4	460.2	DSC	[2006WAS/HOL]
	FUS (I)		27.4	460.2		
	FUS (II)		29.8	456.2	DSC	[1997TRO/MAR]
$C_{20}H_{17}F_{25}$	[90499-31-3]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluoroeicosane				
	TRS		2.4	192		
	TRS		6.4	329		
	FUS		23.7	361	DSC	[1991HOP/MOL, 1988HOP/PUG]
	TRS		5.6	324.2		
	FUS		21.9	355.2	DSC	[1986RUS/RAB]
$C_{20}H_{17}NO$	[1266338-65-1]	*N*-(4′-methylbiphenyl-4-yl)benzamide				
	FUS		38.5	501.7	DSC	[2015OWU/CHE]
$C_{20}H_{17}N_3O_4$		4,11-diamino-2-butyl-1*H*-naphth[2,3-f]isoindole- l,3,5,10(2*H*)-tetraone				
	FUS		24.85	490.2		[1991BAU/WEB]
$C_{20}H_{17}N_3O_5$	[12217-80-0]	4,11-diamino-2-(3-methoxypropyl)-1*H*-naphth[2,3-*f*]isoindole-l,3,5,10(2*H*)-tetrone (Disperse Blue 60)				
	V	(463–513)	106.1	488	GC	[2002SAW/SHI]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{17}N_5O_3$	[244272-56-8]	6-(2-naphthyl)-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	FUS		37.64	493.4	DSC	[1999ZIE/GOL]
$C_{20}H_{18}$	[5271-39-6]	l, l, l-triphenylethane				
	FUS		19.95	375.9	DSC	[1999VER3]
	SUB	(338–363)	108.6 ± 0.9	298	GS	[1999VER3]
	SUB	(338–363)	105.4 ± 0.9	351	GS	[1999VER3]
$C_{20}H_{18}$	[1520-42-9]	l, l ,2-triphenylethane				
	FUS		24.39	328.2	DSC	[1999VER3]
	SUB		116.6 ± 0.5	298	V + F	[1999VER3]
	V	(335–368)	89.0 ± 0.5	351	GS	[1999VER3]
	V	(335–368)	92.2 ± 0.5	298	GS	[1999VER3]
$C_{20}H_{18}N_2O_2$	[7385-67-3]	9-(diethylamino)-5*H*-benzo[*a*]phenoxazin-5-one (nile red)				
	SUB	(427–515)	66 ± 2		F	[2004STE/STI]
$C_{20}H_{18}O_2$	[160731-86-2]	2-fluorenyl-2-methyl-1,3-cyclohexanedione				
	FUS		35.7	448.2		[1995NOL/VER]
$C_{20}H_{18}O_2$	[1571-75-1]	4,4′-(1-phenylethylidene)bis(phenol)				
	FUS		42.5	462.2	DSC	[2014COS/DAV]
	SUB	(410–490)	162.8 ± 1.2	298	ME	[2014DAV/HER, 2014COS/DAV]
$C_{20}H_{18}O_3$		Phenyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		33.3	367.0	DSC	[1994WEB/MEY]
$C_{20}H_{18}O_6$	[170464-52-5]	9-fluorenyl-tris(methoxycarbonyl)methane				
	FUS		32.3	407.2		[1995RAK/VER]
	SUB		132.6	298	GS	[1995RAK/VER]
$C_{20}H_{19}BrS$	[148681-89-4]	2-*n*-butyl-5-(4-bromobiphenyl-4-yl)thiophene				
	FUS		21.4	501.4		[1993BRE/DUN]
$C_{20}H_{19}F_3O$	[172424-72-5]	4-*n*-hexyloxy-2′,3′,4′-trifluorodiphenylacetylene				
	FUS		30.8	322	DSC	[1995HSU/TSA]
$C_{20}H_{19}N_7O_4$	[41642-51-7]	Disperse Blue 165				
	SUB	(464–484)	90.7	474	GS	[1989NIS/AND]
[Note: The molecular structure of the compound given in the paper had a Cl group and only one CN functional group, which is different from the molecular structure given in Scifinder Scholar for Disperse Blue 165. The molecular formula for the structure in the paper is $C_{20}H_{21}ClN_6O_3$. The molecular weight given in the paper, 405, agrees with the molecular formula of $C_{20}H_{19}N_7O_4$. We have assumed that the chemical name is correct, but that the authors misdrew the molecular structure.]						
$C_{20}H_{20}$	[26902-55-6]	Hexacyclopropylethane				
	V	(333–373)	85.8 ± 0.2	298	GS	[1995CHI/HES]
$C_{20}H_{20}$	[89683-62-5]	Pagodane (undecacyclo[9.9.0.0^{1,5}.0^{2,12}.0^{2,18}.0^{3,7}.0^{6,10}.0^{8,12}.0^{11,15}.0^{13,17}.0^{16,20}]eicosane)				
	SUB	(418–473)	90.2 ± 2.3	446	T	[1994BEC/RUE]
$C_{20}H_{20}FNO_3$	[94610-85-2]	4-cyano-3-fluorophenyl 4-hexyloxybenzoate				
	FUS		35.56	332.7		[1984KEL]
$C_{20}H_{20}F_2$	[145698-44-8]	4-hexyl-3′,4′-difluorodiphenylacetylene				
	FUS		24.3	314.9	DSC	[1995HSU/TSA]
$C_{20}H_{20}F_2O$	[145698-45-9]	4-hexyloxy-3′,4′-difluorodiphenylacetylene				
	FUS		33.1	323.6	DSC	[1995HSU/TSA]
$C_{20}H_{20}F_2O$	[172424-68-9]	4-hexyloxy-2′,4′-difluorodiphenylacetylene				
	FUS		34.1	320.9	DSC	[1995HSU/TSA]
$C_{20}H_{20}NP$	[47182-04-7]	*N*-ethyl triphenylphosphine imine				
	SUB		75.3 ± 8.4	298		[1982PIL/SKI, 1960CLA/FOW]
$C_{20}H_{20}O_2$	[160731-88-4]	2-diphenylmethyl-2-ethyl-1,3-cyclopentandione				
	FUS		28.2	382.2		[1995NOL/VER]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(342–377)	122.8 ± 0.7	360	T	[1995NOL/VER]
$C_{20}H_{20}O_3$	[87051-12-5]	4,4-dimethyl-1,8-diphenyl-2,3,5-trioxabicyclo[4.3.0]non-7-ene				
	FUS		22.1	369.2	DSC	[1991JEF/JAB]
$C_{20}H_{20}O_6$	[170464-52-5]	1,1,1-tris(methoxycarbonyl)-2,2-diphenylethane				
	FUS		36.1	414.2		[1995RAK/VER]
	SUB		136	298	GS	[1995RAK/VER]
$C_{20}H_{21}ClO_4$	[49562-28-9]	2-[4-(4-chlorobenzoyl)phenoxy]-2-methylpropanoic acid, isopropyl ester(fenofibrate)				
	FUS		30.9	354.8	DSC	[2016DIO/VIC]
	FUS		32.4	353.2	DSC	[2015TIP/TAK]
	FUS		33.53	352.1	DSC	[2014WAT/HUD]
	FUS		32.82	355.1	DSC	[2014XIA/CUI]
	FUS		27.3	354.6	DSC	[2011GOR/WOJ]
	FUS		33.03	354	DSC	[2010BAI/VAN]
	FUS		34.0	353.4	DSC	[2007VIP/WAN]
	FUS		33.0	353.2	DSC	[2003LAW/WAN]
	FUS		32.4	353.7	DSC	[2002ZHO/ZHA]
	FUS		33.2	353.4	DSC	[2000DIM/PAL]
$C_{20}H_{21}F_{19}O$	[144986-71-0]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-10-eicosanone				
	FUS		53.17	317.9	DSC	[1993VIL/HAM]
$C_{20}H_{21}F_{21}$	[90499-29-9]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafluoroeicosane				
	TRS		4	317		
	FUS		24.4	337	DSC	[1991HOP/MOL]
	TRS		2.2	306.5		
	FUS		26.7	336.7		[1989VIN/RUS]
$C_{20}H_{21}NO_3S$	[313057-11-3]	4-(7-octenyloxy)phenyl 5-cyano-2-thiophene carboxylate				
	FUS		68.2	332.7	DSC	[2000WU/WAN]
$C_{20}H_{21}N_3O_3$	[198629-74-2]	Pyrimethanil phenoxyacetate				
	FUS	(81–380)	34.28	349.4	AC	[2006SUN/LIU]
$C_{20}H_{21}N_3O_5S$	[87027-09-6]	2-methyl-1,1-dioxido-3-[(2-pyridinylamino)carbonyl]-2*H*-1,2-benzothiazin-4-yl, 2,2- dimethylpropanoic acid ester (piroxicam pivalate)				
	FUS		32.74	427	DSC	[1998GIO/GAZ]
$C_{20}H_{22}N_2O$	[263896-41-9]	2,3-dihydro-2-[(3-*exo*)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-1*H*-benz[*e*]isoindol-1-one				
	FUS		29.1	448.2	DSC	[2006CAP/TRA]
$C_{20}H_{22}N_2O_4$	[2475-40-3]	1,4-bis(propylamino)anthraquinone				
	V	(409–463)	118.3	424	A	[1987STE/MAL, 1937HIC/HEC]
$C_{20}H_{22}O_2$	[160731-83-9]	3-diphenylmethyl-3-ethyl-2,4-pentandione				
	FUS		34.7	388.2		[1995NOL/VER]
	SUB	(349–387)	122.3 ± 1.5	368	T	[1995NOL/VER]
$C_{20}H_{22}O_3$		(*E*, *E*)-2,4-hexadienyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		32.1	326.9	DSC	[1994WEB/MEY]
$C_{20}H_{22}O_3$		3-hexinyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		28.1	335.2	DSC	[1994WEB/MEY]
$C_{20}H_{22}O_4$		2-oxycyclohexyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		27.7	370.3	DSC	[1994WEB/MEY]
$C_{20}H_{22}O_6$		2-isosorbid 2-(6-methoxy-2-naphthyl)propionate				
	FUS		41.4	409.1	DSC	[1994WEB/MEY]
$C_{20}H_{22}O_6$		5-isosorbid 2-(6-methoxy-2-naphthyl)propionate				
	FUS		33.6	426.8	DSC	[1994WEB/MEY]
$C_{20}H_{22}O_6$		2-isomannid 2-(6-methoxy-2-naphthyl)propionate				
	FUS		34.5	395.7	DSC	[1994WEB/MEY]
$C_{20}H_{23}FN_2O$	[2354-61-2]	1-(4-fluorophenyl)-4-[4-phenyl-1-piperazinyl]-1-butanone (butropipazone)				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (I)		36.7	387.2		
	FUS (II)		34.7	363.7	DSC	[1981DRA/AZI]
$C_{20}H_{23}F_{19}O$	[144986-72-1]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-10-eicosanol				
	TRS		3.6	346.2		
	FUS		33.5	356	DSC	[1992VIL/WEI]
$C_{20}H_{23}NO_4$	[16590-41-3]	17-(cyclopropylmethyl)-4,5-epoxy-3,14-dihydroxy-morphinan-6-one (naltrexone)				
	FUS		15.64	448.2	DSC	[2004PIL/HAM]
	FUS		14.8	448.9	DSC	[2004HAM/HAM]
$C_{20}H_{23}N_3O_9$	[142489-47-2]	*N*-[*N*-[[2-(1,3-dihydro-1,3-dioxo-2*H*-isoindol-2-yl)ethoxy]acetyl]-(*l*)-alanyl]-(*d*)-glutamic acid				
	FUS		54.53			[1999ZAD/KER]
$C_{20}H_{24}$	[115181-07-2]	8-(4-biphenyl)-1-octene				
	FUS		21	291.5	DSC	[1989MAL/KAN]
$C_{20}H_{24}N_2O_6$	[63675-72-9]	1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-3,5-pyridinedicarboxylic acid, methyl 2-methylpropyl ester (nisoldipine)				
	FUS		28.2	421.1	DSC	[2015NUR/BOO]
	FUS		30.5	422.8	DSC	[2004MAR/KOZ]
$C_{20}H_{24}O_2$	[102607-41-0]	7-methyl-3-(1-methylethyl)-8-(4-methyl-3-pentenyl)-1,2-naphthalenedione (saprorthoquinone)				
	FUS		23.09	369.2		[1992HUA/ZHO]
$C_{20}H_{24}O_2$	[57-63-6]	19-norpregna-1,3,5(10)-trien-20-yne-3,17-diol (ethinyl estradiol)				
	FUS		27.57	456.2	DSC	[2002VAN/KRU]
$C_{20}H_{24}O_3$	[901-93-9]	3-(acetyloxy)-estra-1,3,5(10)-trien-17-one				
	FUS		15	399	DSC	[1990YAN/EIR]
$C_{20}H_{24}O_3$		(*Z*)-3-hexenyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		29.2	312.1	DSC	[1994WEB/MEY]
$C_{20}H_{24}O_3$		(*E*)-3-hexenyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		23.6	306.5	DSC	[1994WEB/MEY]
$C_{20}H_{24}O_3$		Cyclohexyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		29.3	352.2	DSC	[1994WEB/MEY]
$C_{20}H_{24}O_4S$	[313057-15-7]	4-(7-octenyloxy)phenyl 5-methoxy-2-thiophene carboxylate				
	FUS		76.57	332.8	DSC	[2000WU/WAN]
$C_{20}H_{24}O_6$	[14187-32-7]	Dibenzo-18-crown-6				
	FUS		56.0	435.7	DSC	[2016SAN/CRU]
	FUS		55.4	440.0	DSC	[2000NIC/ORF]
	FUS		57.45	435.8		[1998DOM]
	FUS		60.7	434.2	DSC	[1985BIA/GIU]
	SUB		190.6 ± 3.6	298	V + F	[2016SAN/CRU]
	SUB		178.8 ± 6.9	298	CGC–DSC	[2000NIC/ORF]
	V	(545–595)	97.9 ± 0.3	570	DTA	[2016SAN/CRU]
	V	(545–595)	154.1 ± 3.1	298	DTA	[2016SAN/CRU]
	V		137.0 ± 7.4	298	CGC	[2000NIC/ORF]
$C_{20}H_{24}O_8$		3-(β-D-glucose) 2-(6-methoxy-2-naphthyl)propionate				
	FUS		59.8	360.9	DSC	[1994WEB/MEY]
$C_{20}H_{25}ClN_2O_5$	[88150-42-9]	(*R*, *S*)-2-[(2-aminoethoxy)methyl]-4-(2-chlorophenyl)-3-(ethoxy-carbonyl)-5-(methoxycarbonyl)-6-methyl-1,4-dihydropyridine, (RS)-amlodipine				
	FUS		20.22	414.3	DSC	[2010ZEN/WAN]
$C_{20}H_{25}ClN_2O_5$		(*S*)-2-[(2-aminoethoxy)methyl]-4-(2-chlorophenyl)-3-(ethoxy-carbonyl)-5-(methoxycarbonyl)-6-methyl-1,4-dihydropyridine, (*S*)-amlodipine				
	FUS		16.86	384.2	DSC	[2010ZEN/WAN]
$C_{20}H_{26}$	[1625-91-8]	4,4′-di-*tert*-butylbiphenyl				
	TRS	(8–373)	0.39	176.4	AC	[2010EFI/VAR]
	TRS	(8–373)	0.84	205.5	AC	[2010EFI/VAR]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		19.97	400.8	DSC	[2010EFI/VAR]
	FUS		20.0	400.8	DSC	[2009MEL/PIM]
	TRS		1.0	322		
	FUS		18.8	402	DSC	[2002NAT/JES]
	SUB	(336–385)	108.6 ± 0.5	298	GS	[2012NAZ/NES]
	SUB		106.8 ± 3.2	298	C	[2009MEL/PIM]
	V		95.9 ± 0.6	298	S–F	[2012NAZ/NES]
	V		86.2 ± 3.2	298	S–V	[2009NTI/CHA]
$C_{20}H_{26}N_2O_8S$	[58194-26-6]	5-[bis(2-ethoxy-2-oxoethyl)amino]-4-cyano-2-(ethoxycarbonyl)-3-thiopheneacetic acid, ethyl ester (tetraethyl ranelate)				
	FUS		33.60	376.53	DSC	[2016LI/CHE]
$C_{20}H_{26}O$	[68-22-4]	19-nor-17α-ethynyltestosterone				
	FUS		39.6	479	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{20}H_{26}O_2$	[38107-76-5]	2-*tert*-butyl-4-methoxymethyl-6-α-methylbenzylphenol				
	FUS		29.4	371.7	DTA	[1972INO/LIA]
$C_{20}H_{26}O_3$	[57078-10-1]	1,2,2-trimethyl-3-[(5,6,7,8-tetrahydro-2-naphthalenyl)carbonyl]cyclopentanecarboxylic acid				
	FUS		22.94	421.3	DSC	[1992TER/PAU]
$C_{20}H_{26}O_3$		Hexyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		29.8	318.1	DSC	[1994WEB/MEY]
$C_{20}H_{26}O_4$	[84-61-7]	Dicyclohexyl phthalate				
	V		109.9 ± 1.0	298	CGC	[2014GOB/CHI]
	V	(391–475)	97	406	A	[1987STE/MAL, 1952WER]
$C_{20}H_{27}N$	[150-59-4]	Alverine				
	V		89.3 ± 0.2	298	CGC	[2014GOB/VIK]
$C_{20}H_{27}NO_4$	[135531-41-8]	(−)1-[[2-(3,4-dimethoxyphenyl)ethyl]amino]-3-(3-methyl-phenoxy)-2-propanol (bevantolol)				
	FUS		43.22	348.3	DSC	[1999LI/ZEL, 1993NEA/SHI]
$C_{20}H_{27}NO_4$	[59170-23-9]	(±)1-[[2-(3,4-dimethoxyphenyl)ethyl]amino]-3-(3-methyl-phenoxy)-2-propanol (bevantolol)				
	FUS		45.9	360.6	DSC	[1999LI/ZEL, 1993NEA/SHI]
$C_{20}H_{27}N_5O_2$	[73963-72-1]	6-[4-(1-cyclohexyl-1*H*-tetrazol-5-yl)butoxy]-3,4-dihydro-2(1*H*)-quinolinone (cilostazol)				
	FUS		44.7	431.9	DSC	[2015NUR/BOO]
	FUS (I)		4.72	432		
	FUS (II)		3.89	408.8		
	FUS (III)		4.28	419	DSC	[2002STO/BEH]
[Note: Reported fusion enthalpies are very small. Values are likely off by a factor of ten.]						
$C_{20}H_{27}O_4P$	[1241-94-7]	ethylhexyldiphenyl phosphate				
	V	(383–413)	99.9	398	GC-RT	[2014BRO/JAN]
$C_{20}H_{28}$	[55000-56-1]	2-butyl-3-hexylnaphthalene				
	V	(422–485)	80.8	437		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{28}$	[55000-55-0]	7-butyl-1-hexylnaphthalene				
	V	(418–481)	78.1	433		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{28}$	[55000-53-8]	1,4-dimethyl-5-octylnaphthalene				
	V	(432–496)	81.6	447		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{28}$	[55000-54-9]	2,6-dimethyl-3-octylnaphthalene				
	V	(430–494)	80.8	445		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{28}O_2$	[112018-00-5]	1-[3,5-di-*tert*-butyl-4-hydroxyphenyl]-5-hexyn-1-one (tebufelone)				
	FUS		25.14	342.2		[1993KEL/SAK]
$C_{20}H_{28}O_3$	[3129-42-8]	Testosterone formate				
	FUS		26.36	398		[1994REG/CHM]
$C_{20}H_{28}O_5$	[104225-29-8]	3-(3,4-diethoxybenzoyl)-1,2,2-trimethylcyclopentanecarboxylic acid				
	FUS		29.07	389.3	DSC	[1992TER/PAU]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{29}N_3O_2$	[85-79-0]	2-butoxy-*N*-[2-(diethylamino)ethyl]quinoline-4-carboxamide (dibucaine)				
	FUS		29.23	338	DSC	[2010BAI/VAN]
$C_{20}H_{30}$	[26902-55-6]	Hexacyclopropylethane				
	SUB		109.0 ± 2.1			[1984BER/BEC]
$C_{20}H_{30}$	[3732-31-8]	1,1′-biadamantane				
	TRS		1.15	336.3		
	TRS		1.3	509.6		
	FUS	(5–610)	70 ± 10	561	AC, SC	[2007KAR/KAB]
	SUB	(393–443)	109.1 ± 1.3	417.8	ME	[2007KAR/KAB]
	SUB	(393–443)	113.8 ± 1.4	298	ME	[2007KAR/KAB]
$C_{20}H_{30}N_2O_2$	[119135-74-9]	1-nitrosoadamantane (dimer)				
	SUB		97.5 ± 1.8	298	C	[2001MAT/LEB]
$C_{20}H_{30}N_4O_4$	[197300-58-6]	1,1′-(1,10-decanediyl)bisthymine				
	FUS		42.56	455	DSC	[2002ITA/KAM]
$C_{20}H_{30}O_2$	[58-18-4]	17-methyl testosterone				
	FUS		25.02	437.3	DSC	[2011MEL/PIN]
	FUS		27.8	439	DSC	[1997CEN/MEL]
	FUS		22.5		DSC	[1983GHA/JAM]
$C_{20}H_{30}O_2$	[514-10-3]	1,2,3,4,4*a*,4*b*,5,6,10,10*a*-decahydro-1,4*a*-dimethyl-7-(1-methylethyl)-1-phenanthrenecarboxylic acid (abietic acid)				
	FUS		19.45	450.9	DSC	[2014NON/CHE, 2012NON/CHE, 2014NON/CHE2]
$C_{20}H_{30}O_4$	[84-75-3]	dihexyl phthalate				
	V	(453–533)	92	468	A	[1987STE/MAL]
	V	(343–387)	103	358	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{20}H_{32}$	[66538-96-3]	1,2,3,4-tetrahydro-6-butyl-7-hexylnaphthalene				
	V	(413–475)	78.1	428		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[66205-02-5]	1,2,3,4-tetrahydro-7-butyl-1-hexylnaphthalene				
	V	(409–471)	76.7	424		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[55255-59-9]	1,2,3,4-tetrahydro-2,6-dimethyl-7-octylnaphthalene				
	V	(418–480)	79.4	433		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[55255-58-8]	1,2,3,4-tetrahydro-5,8-dimethyl-1-octylnaphthalene				
	V	(419–481)	78.6	434		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{32}$	[56419-21-7]	10,10,13,13-tetramethylcyclohexadeca-1,5-diyne				
	FUS		18.83	323.2		[1975BJO/BOR]
$C_{20}H_{32}O_2$	[506-32-1]	(5*Z*,8*Z*,11*Z*,14*Z*)-eicosatetraenoic acid				
	V		145.3 ± 6.8	298	CGC	[2015WIL/GOB]
$C_{20}H_{32}O_4$	[175848-66-5]	2,5-di-*n*-heptyloxy-1,4-benzoquinone				
	TRS		3.6	275.8		
	TRS		17.3	372.5		
	FUS		38.4	406.2	DSC	[1996KEE/VAN]
$C_{20}H_{33}F_9O$	[1240205-64-4]	1-[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]tetradecane				
	FUS		287.7	25.01	DSC	[2010ZAG/CON]
$C_{20}H_{34}$	[55255-70-4]	9-cyclohexyltetradecahydroanthracene				
	V	(419–488)	74.5	434	A	[1987STE/MAL]
$C_{20}H_{34}$	[1459-10-5]	Tetradecylbenzene				
	V	(485–665)	74.5	500		[1999DYK/SVO]
	V		99.6	298		[1971WIL/ZWO]
$C_{20}H_{34}O_2$	[1191-41-9]	Ethyl linolenate				
	V	(447–491)	72.7	462	A	[1987STE/MAL]
$C_{20}H_{34}O_{11}$	[908818-42-8]	Diethylene glycol dicarboxylic acid, di[1-(butoxycarbonyl)ethyl] ester				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(433–525)	103.6	448	A	[1987STE/MAL]
$C_{20}H_{34}O_{11}$		Diethylene glycol dicarboxylic acid, di[1-(sec-butoxycarbonyl)ethyl] ester				
	V	(418–513)	103.1	433	A	[1987STE/MAL]
$C_{20}H_{34}O_{11}$	[5349-71-3]	Diethylene glycol dicarboxylic acid, di[1-(isobutoxycarbonyl)ethyl] ester				
	V	(415–513)	103.1	430	A	[1987STE/MAL, 1950REH/DIX3]
$C_{20}H_{36}N_2$	[85688-86-4]	Tetraisobutylsuccinonitrile				
	FUS		34.31	360.2		[1983BAR/BEC]
$C_{20}H_{36}O_2$	[544-35-4]	Ethyl linoleate				
	V	(487–537)	92.9	513		[2011SIL/FAL]
	V	(448–497)	72.6	463	A	[1987STE/MAL]
$C_{20}H_{36}O_2$	[14113-56-5]	1,10-cycloeicosanedione				
	FUS		55.06	327.2		[1972ALV/BOR]
$C_{20}H_{36}O_2$		1,9-cyclohexadecanedione bis ethylene ketal				
	FUS		42.13	404.2		[1972ALV/BOR]
$C_{20}H_{36}O_4$	[2424-62-6]	Hexadecyl maleate				
	FUS		71.4	345.0	DSC	[2016RIC/DEL]
$C_{20}H_{36}O_6$		(syn-*cis*/anti-*cis*) dicyclohexano-18-crown-6				
	V		124.2 ± 4.0	298	CGC	[2000NIC/ORF]
$C_{20}H_{38}$	[66455-55-8]	2-butyl-3-hexyldecahydronaphthalene				
	V	(407–472)	76.9	422		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{38}$	[66455-54-7]	7-butyl-1-hexyldecahydronaphthalene				
	V	(407–467)	80.0	422		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{38}$	[54964-83-9]	1,4-dimethyl-5-octyldecahydronaphthalene				
	V	(404–466)	73.9	419		[1963DIX/YAR, 1984BOU/FRI, 1999DYK/SVO]
$C_{20}H_{38}$	[54964-85-1]	2,6-dimethyl-3-octyldecahydronaphthalene				
	V	(406–469)	76.4	421		[1963DIX/YAR, 1984BOU/FRI]
$C_{20}H_{38}$	[26527-76-4]	3,4-dicyclohexyl-3,4-dimethylhexane				
	V	(343–365)	78.4	359		[1999DYK/SVO, 1980BEC/KRA]
$C_{20}H_{38}$	[765-27-5]	1-eicosyne				
	V	(473–651)	68.9	488		[1999DYK/SVO]
$C_{20}H_{38}$	[61847-99-2]	2-eicosyne				
	V	(480–661)	69.8	495		[1999DYK/SVO]
$C_{20}H_{38}$	[61886-66-6]	3-eicosyne				
	V	(470–648)	68.4	485		[1999DYK/SVO]
$C_{20}H_{38}O$	[29171-23-1]	3,7,11,15-tetramethyl-1-hexadecyn-3-ol				
	V	(403–457)	43.8 ± 1.9	430	Static	[1988BAG/GUR]
$C_{20}H_{38}O_2$	[111-62-6]	Ethyl oleate				
	V	(487–537)	87.6	513	DSC	[2011SIL/FAL]
	V	(384–481)	92.4	399	A	[1987STE/MAL]
$C_{20}H_{38}O_2$	[2495-27-4]	Hexadecyl methacrylate				
	V	(431–541)	73.1	446	A	[1987STE/MAL]
$C_{20}H_{38}O_2$	[155055-33-7]	(*Z*)-3-octadecenyl acetate				
	V	(393–438)	108.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[155055-35-9]	(*E*)-3-octadecenyl acetate				
	V	(393–438)	109.3	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[693-80-1]	(*Z*)-9-octadecenyl acetate				
	V	(393–438)	107.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[22147-38-2]	(*E*)-9-octadecenyl acetate				
	V	(393–438)	108.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{38}O_2$	[6186-98-7]	(*Z*)-11-octadecenyl acetate				
	V	(393–438)	108.4	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[69282-64-0]	(*E*)-11-octadecenyl acetate				
	V	(393–438)	109.1	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[60037-58-3]	(*Z*)-13-octadecenyl acetate				
	V		108.8 ± 3.9	298	CGC	[2016GOO/HAS]
	V	(393–438)	108.7	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[155055-36-0]	(*E*)-13-octadecenyl acetate				
	V	(393–438)	109.8	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[155055-34-8]	(*Z*)-15-octadecenyl acetate				
	V	(393–438)	110.2	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[155055-37-1]	(*E*)-15-octadecenyl acetate				
	V	(393–438)	110.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
$C_{20}H_{38}O_2$	[5561-99-9]	*cis*-11-eicosenoic acid (gondoic acid)				
	TRS		9.0	270		
	FUS		49.7	296.5	DSC	[1997SAT/YAN]
	SUB		192.9 ± 2.2	298	V + F	[2015WIL/GOB]
	V		143.5 ± 2.2	298	CGC	[2015WIL/GOB]
$C_{20}H_{38}O_4$	[14491-66-8]	Dioctyl succinate				
	V	(503-523)	94.2	513	A	[1987STE/MAL]
$C_{20}H_{38}O_4$	[50893-80-6]	Hexadecyl succinate				
	FUS		66.1	337.4	DSC	[2016RIC/DEL]
$C_{20}H_{38}O_4$	[6819-09-6]	Dipentyl sebacate				
	V	(353–408)	99.2	368	A	[1987STE/MAL]
$C_{20}H_{38}O_4$	[2424-92-2]	Eicosanedioic acid				
	SUB	(380–395)	165.7 ± 3.3	388	ME	[1960DAV/THO, 1987STE/MAL]
	SUB		170.0 ± 3.3	298		[1960DAV/THO, 1999RIB/MON]
	SUB	(336–346)	199.5	341	A	[1987STE/MAL]
$C_{20}H_{38}O_5$	[1086272-76-5]	Dodecyl[1-(butoxy carbonyl)ethyl] carbonate				
	V	(408–498)	82.8	423	A	[1987STE/MAL, 1950REH/DIX2]
$C_{20}H_{39}NO_3$	[14379-41-0]	*N*-tetradecanoyl-(*l*)-leucine				
	FUS		32.4	377.5	DSC	[1986MIY/MAT]
$C_{20}H_{39}NO_3$	[21394-55-8]	*N*-tetradecanoyl-(d*l*)-leucine				
	TRS		1.8	320.1		
	FUS		54.8	349.6	DSC	[1986MIY/MAT]
$C_{20}H_{39}NO_3$	[6333-54-6]	*N*-(1-oxooctadecyl)glycine				
	TRS + FUS		56.1	398.1	DSC	[2014RED/KRO]
$C_{20}H_{40}$	[3452-07-1]	1-eicosene				
	V	(478–638)	74.3	493		[1999DYK/SVO]
	V	(573–615)	65	588	A	[1987STE/MAL]
	V		100	298		[1971WIL/ZWO]
$C_{20}H_{40}$	[1795-18-2]	Tetradecylcyclohexane				
	V	(486–665)	74.7	501		[1999DYK/SVO]
	V		99.4	298		[1971WIL/ZWO]
$C_{20}H_{40}$	[4669-01-6]	Pentadecylcyclopentane				
	V	(486–661)	76.5	501		[1999DYK/SVO]
	V		100.3	298		[1971WIL/ZWO]
$C_{20}H_{40}$	[42506-54-7]	1,1,9,9-tetramethylcyclohexadecane				
	FUS		25.1	364.2	DSC	[1975BJO/BOR2]
$C_{20}H_{40}$	[42506-49-0]	1,1,4,4-tetramethylcyclohexadecane				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		25.1	303.2	DSC	[1975BJO/BOR2]
$C_{20}H_{40}$	[54157-03-8]	1,1-dimethylcyclooctadecane				
	FUS		23.85	283.2		[1974BJO/BOR]
$C_{20}H_{40}O$	[60046-87-9]	3,7,11,15-tetramethyl-1-hexadecen-3-ol				
	V	(439–468)	67.0 ± 2.0	453	Static	[1988BAG/GUR]
$C_{20}H_{40}O_2$	[822-23-1]	Octadecyl acetate				
	V	(393–438)	113.5	298	GC	[1997KOU/HOS, 2000OVA/KOU]
	V	(341–500)	94.3	356	A	[1987STE/MAL]
$C_{20}H_{40}O_2$	[111-06-8]	Butyl palmitate				
	V	(353–383)	93.8	368	A	[1987STE/MAL, 1958ROM/GOR]
$C_{20}H_{40}O_2$	[1654-86-0]	Decyl decanoate				
	V	(341–398)	97.8	356	A	[1987STE/MAL]
$C_{20}H_{40}O_2$	[506-30-9]	Eicosanoic acid				
	TRS		4.1	332.8		
	TRS		6.1	333.3		
	FUS		71.6	347.8	DSC	[2007MOR/COR]
	FUS	(90–355)	69.2	348.2	AC	[1996DOM/HEA, 1982SCH/VAN]
	FUS		72.0	348.4		[1964ADR/DEK]
	SUB	(305–323)	148.4		TPTD	[2005CHA/ZIE]
[Note: Experimental values based on the TPTD method are often inconsistent with values determined using other experimental methods.]						
	SUB	(337–346)	199.6 ± 7.5	342	ME	[1961DAV/MAL, 1970COX/PIL]
	V		143.2 ± 4.5	298	CGC	[2015WIL/GOB]
	V		143.7 ± 8.0	298	CGC	[2013WIL/CHI]
	V	(477–670)	114.5	492	A	[1987STE/MAL]
	V	(380–404)	125.5	392	ME, TE	[1982DEK/SCH]
$C_{20}H_{40}O_2$	[111-61-5]	Ethyl stearate				
	FUS		59.81	307.4	DSC	[2014ROB/BAR]
	FUS	(5–370)	63.08	306.9	AC	[2011AGA/VAR]
	FUS		58.8	306.2	DSC	[2003SUP/GOF]
	FUS		59.83	307		[1967OMA]
	FUS		59.87	304.3	Cryst	[1934KIN/GAR]
	SUB	(297–306)	161.4	301.5	ME	[1987STE/MAL, 1967OMA]
	V		109.3 ± 3.2	298	CRT	[2015GOB/CHI]
	V		109.7 ± 0.3	298	CGC	[2015GOB/CHI]
	V	(355–412)	93.5	383	GS	[2012VER/RAL]
	V	(355–412)	109.4 ± 0.7	298	GS	[2012VER/RAL]
	V	(363–423)	92.2	393	TGA	[2012VER/RAL]
	V	(363–423)	109.7 ± 0.7	298	TGA	[2012VER/RAL]
	V	(491–534)	101.7	513	DSC	[2011SIL/FAL]
	V	(454–469)	111.9	461	A	[1987STE/MAL]
	V	(310–328)	106.8	319	A, ME	[1987STE/MAL, 1967OMA]
$C_{20}H_{40}O_2$	[1731-94-8]	Methyl nonadecanoate				
	FUS		63.8	313.2	DSC	[2004CHI/ZHA]
	TRS		19.4	304.2		
	FUS		42.8	313.2	Cryst	[1936KIN/GAR]
	V	(467–558)	109.5 ± 5.4	298	CGC	[2004CHI/ZHA]
	V		101.2	350	CE	[2002VAN/VAN]
	V		105.0 ± 2.4	326	CE	[2002VAN/VAN]
	V		109.5 ± 2.7	298	CE	[2002VAN/VAN]
	V	(441–529)	90.1	456	A, E	[1987STE/MAL, 1963ROS/SCH]
$C_{20}H_{40}O_2$	[20292-08-4]	2-ethylhexyl laurate				
	V	(371–452)	91.4	386		[2001BUR/JOS]
	V	(443–503)	104.5	298	GC	[1997KRO/VEL]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{40}O_4$	[43091-29-8]	2,2,6,6,10,10,14,14-octamethyl-1,3,9,11-tetraoxacyclohexadecane				
	FUS		24.69	406.9		[1973DAL/EKE]
$C_{20}H_{40}O_4$	[56444-63-4]	2,2,12,12-tetramethyl-1,3,11,13-tetraoxacycloeicosane				
	FUS		45.6	369.5		[1975BOR]
$C_{20}H_{41}Br$	[4276-49-7]	1-bromoeicosane				
	V	(502–673)	79.8	517	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{20}H_{41}C1$	[42217-02-7]	1-chloroeicosane				
	V		120.2	298		[2006BOL/NER2]
	V	(492–673)	78.3	507	A	[1987STE/MAL, 1970DYK/VAN]
$C_{20}H_{41}F$	[676-44-8]	1-fluoroeicosane				
	V	(468–663)	74.3	483	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{20}H_{41}I$	[34994-81-5]	1-iodoeicosane				
	V	(516–673)	118.5	298	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN, 2006BOL/NER]
	V	(516–673)	80.9	531	A, E	[1987STE/MAL, 1961LI/ROS, 1970DYK/VAN]
$C_{20}H_{41}NO$	[74534-12-6]	*N*-hexyl tetradecanamide				
	TRS		8.0	310		
	TRS		7.0	328		
	FUS		35.0	334	DSC	[1980CAR/BUS]
$C_{20}H_{41}NO$	[146985-21-9]	*N*,*N*-di(2-ethylhexyl) isobutyramide				
	V	(463–513)	79.1 ± 0.9	298	CGC	[2009PAN/ANT]
$C_{20}H_{41}NO$	[75397-93-2]	*N*,*N*-dihexyl octanamide				
	V	(463–513)	82.9 ± 1.0	298	CGC	[2009PAN/ANT]
$C_{20}H_{42}$	[6912-07-8]	5-butylhexadecane				
	V	(423–457)	77.3	438	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{20}H_{42}$	[61868-04-0]	2,3-dimethyloctadecane				
	V	(458–612)	65.7	473	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[61868-10-8]	2,4-dimethyloctadecane				
	V	(456–583)	75.8	471	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[112-95-8]	Eicosane				
	FUS		67.5	309.9	DSC	[2016BOU/HAF]
	FUS		69.8	308.8	DSC	[2015VEL/KHA]
	FUS		66.82	308.95	DSC	[2013BEN/KHI, 2012BEN/KHI]
	FUS		69.03	311.6	DSC	[2006KHI/BOU]
	FUS		69.8	310.2	DSC	[2006GEN/AMA]
	FUS		68.1	309.7	DSC	[2004MON/RAJ]
	FUS		68.1	309.7	DSC	[1999MET/RAJ]
	FUS		69.0	310.6	DSC	[1999GIL]
	FUS		69.0	309.6		[1991BAR/SCH]
	FUS		66.94	310.0		[1991CLA/LET]
	FUS		67.8	309.7		[1996DOM/HEA, 1985KOL/SYU]
	FUS		69.9	309.8		[1973COM]
	FUS		69.8	309.8	AC	[1955SCH/BUS]
	FUS		61.48	309.7		[1930PAR/HUF]
	FUS		59.0	309.6		[1929PAR/TOD]
	SUB	(302–308)	172.8 ± 3.0	305		[2009RAZ/NAC]
	SUB		179.5 ± 2.0	367	B	[1994PIA/FON]
	SUB		U152.3 ± 5.0	298	B	[1991PIA/POM]
	SUB		170.4	298	C	[1972MOR3]
	V		103.9 ± 3.2	298	CRT	[2015GOB/CHI]
	V		100.4 ± 2.9	298	CGC	[2015GOB/CHI]
	V	(313–373)	99.5 ± 1.1	343		[2009RAZ/NAC]
	V		102.6 ± 1.0	298	CGC	[2002CHI/WEB]
	V		102.8 ± 2.2	298	GS	[2001PUR/CHI]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		101.1 ± 2.0	298	CGC	[2000NIC/ORF]
	V	(453–503)	103.5	298	CGC	[1995CHI/HOS]
	V	(433–583)	78.0	448		[1994MOR/KOB]
	V		101.8	298		[1994RUZ/MAJ]
	V	(347–388)	110 ± 2	368	TE	[1994PIA/FON]
	V	(345–470)	79.0	360	TE, ME, GS	[1991PIA/POM]
	V	(388–625)	80.8	440	EB, IP	[1989CHI/NGU]
	V	(388–625)	68.3	540	EB, IP	[1989CHI/NGU]
	V	(363–460)	89.6	378		[1988SAS/JOS]
	V	(528–620)	71.1	543	A	[1987STE/MAL]
	V	(344–380)	93.3	359	A, GS	[1987STE/MAL, 1979MAC/PRA]
	V		100.8	298		[1971WIL/ZWO]
$C_{20}H_{42}$	[1560-86-7]	2-methylnonadecane				
	V	(465–607)	72.4	480	A	[1987STE/MAL, 1959PAR/MAC]
$C_{20}H_{42}$	[6418-45-7]	3-methylnonadecane				
	V	(463–609)	71.3	478	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[25117-27-5]	4-methylnonadecane				
	V	(460–609)	68.4	475	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[57160-72-2]	5-methylnonadecane				
	V	(462–609)	69.1	477	A	[1987STE/MAL, 1959TER/BRI]
$C_{20}H_{42}$	[55044-10-5]	4-propylheptadecane				
	V	(425–459)	79.2	440	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{20}H_{42}$	[102155-32-8]	2,4,6-trimethylheptadecane				
	V	(449–579)	71.9		A	[1987STE/MAL, 1999DYK/SVO]
$C_{20}H_{42}O$	[629-96-9]	1-eicosanol				
	TRS + FUS		78.4	337.0	DSC	[2006NIC/KWE]
	FUS		43.6	336.6	DSC	[2004VEN/CAL]
	TRS		28.4	335.5		
	FUS		43.6	336.6	DSC	[2002VEN/RAM]
	FUS		73.72	338.2		[2001VAN/OON2]
	SUB	(327–341)	218 ± 3.8	332	ME	[1965DAV/KYB, 1987STE/MAL]
	SUB		223 ± 3.8	298		[1965DAV/KYB]
	V		125.9 ± 0.8	298	CGC	[2006NIC/KWE]
	V	(488–653)	83.5	503	A	[1987STE/MAL]
	V	(493–648)	83.4	508	A	[1987STE/MAL]
	V	(339–358)	118.9	348	ME	[1987STE/MAL, 1965DAV/KYB]
$C_{20}H_{42}O_2$	[7735-43-5]	1,20-eicosanediol				
	TRS		37	368.6		
	FUS		39.7	376.1	DSC	[1999OGA/NAK]
$C_{20}H_{42}O_5$	[5274-68-0]	3,6,9,12-tetraoxa-1-tetracosanol				
	V	(501–543)	135.5	516	A	[1987STE/MAL, 1974NAK/EDA]
$C_{20}H_{42}O_{10}$		1,ω-dimethoxynona(oxyethylene)				
	FUS		73.9	289.2		[1996YAN/YU]
$C_{20}H_{42}S$	[13373-97-2]	1-eicosanethiol				
	V	(512–694)	81.3	527	E	[1999DYK/SVO]
$C_{20}H_{42}S_2$	[10496-18-1]	dinonyl disulfide				
	V	(518–702)	83.4	533	E	[1999DYK/SVO]
$C_{20}H_{43}N$	[1120-49-6]	didecylamine				
	V	(506–705)	70.9	521	A	[1987STE/MAL]
$C_{20}H_{43}N$	[30951-88-3]	*N*,*N*-diethylhexadecylamine				
	V	(412–628)	71.9	427	A	[1987STE/MAL, 1947STU]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{43}N$	[124-28-7]	*N*,*N*-dimethyloctadecylamine				
	V	(504–701)	74.7	519	A	[1987STE/MAL]
$C_{20}H_{43}N$	[10525-37-8]	eicosylamine				
	V	(543–659)	74.5	558	A	[1987STE/MAL, 1956MAN2]
$C_{20}H_{48}O_2$	[302-79-4]	3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenoic acid (retinoic acid)				
	TRS		3.2	419.8		
	FUS (I)		37.1	456.9		[2006CAV/PAN]
	FUS (II)		36.8	456.3	DSC	[2006CAV/PAN]
$C_{21}H_6N_{12}O_{18}$	[49753-54-0]	2,4,6-tris(2,4,6-trinitrophenyl)-1,3,5-triazine				
	SUB	(479–551)	167.9	494	A	[1987STE/MAL, 1975COV]
$C_{21}H_8F_{28}O_8$	[464-40-4]	pentaerythritol, tetraperfluorobutyrate				
	V	(293–433)	35.5	308	I, A	[1987STE/MAL, 1957DOB/KEL]
$C_{21}H_{13}F_{13}OS$	[246543-94-2]	2-(perfluoro-*n*-hexyl)ethylthiomethyl biphenyl-4-yl ether				
	FUS		40.6	344.8		[1999DEG/GUI]
	FUS		40.4	344.8	DTA	[1999TAF/GUI, 1999DEG/GUI]
$C_{21}H_{13}N$	[215-62-3]	Dibenz[*a*, *c*]acridine				
	FUS		27.8	477.4	DSC	[2010KES/AUC]
$C_{21}H_{13}N$	[226-36-8]	Dibenz[*a*, *h*]acridine				
	FUS		30.6	499.7	DSC	[2010KES/AUC]
$C_{21}H_{13}N$	[226-92-6]	Dibenz[*a*, *i*]acridine				
	FUS		29.6	483.5	DSC	[2010KES/AUC]
$C_{21}H_{13}N$	[224-42-0]	Dibenz[*a*, *j*]acridine				
	FUS		25.5	492.7	DSC	[2010KES/AUC]
$C_{21}H_{14}N_2O_3$	[13494-38-7]	2-phenyl-3-benzoylquinoxaline-1,4-dioxide				
	SUB		167.4 ± 4.0	298	ME	[1997ACR/POW]
$C_{21}H_{14}N_2O_3$	[5166-47-2]	1,4-diamino-2-benzoyl-9,10-anthraquinone				
	SUB		168.5			[1984KAR/KRU]
$C_{21}H_{15}BrN_2O_2$	[128-83-6]	1-amino-2-bromo-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	SUB	(418–438)	167.0 ± 6.0	428		[1984KRI]
$C_{21}H_{15}F_{13}S$	[246543-97-5]	2-(perfluoro-*n*-hexyl)ethylthiomethyl biphenyl-4-yl				
	FUS		53.1	332.9	DTA	[1999TAF/GUI, 1999DEG/GUI]
$C_{21}H_{15}NO_2$	[158749-37-2]	2-methylphenyl acridine-9-carboxylate				
	FUS		30.5	415	DSC	[2010KRZ/MAL]
$C_{21}H_{15}NO_2$	[158749-58-7]	3-methylphenyl acridine-9-carboxylate				
	FUS		32	429	DSC	[2010KRZ/MAL]
$C_{21}H_{15}NO_2$	[158749-59-8]	4-methylphenyl acridine-9-carboxylate				
	FUS		30.7	446	DSC	[2010KRZ/MAL]
$C_{21}H_{15}NO_3$		2-hydroxy-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	SUB	(349–378)	121.0 ± 7.6	363		[1984KRI]
[Note: Compound is listed as the 2-hydroxy-derivative in the paper; however, it is listed as the 1-hydroxy-derivative in Chem. Abstracts.]						
$C_{21}H_{15}NO_3$	[1228096-42-1]	2-methoxyphenyl acridine-9-carboxylate				
	FUS		38.8	462	DSC	[2010ZAD/KRZ]
$C_{21}H_{15}N_3$	[493-77-6]	2,4,6-triphenyltriazine				
	SUB		150.7 ± 1.2	298	ME	[2011LIM/COS]
$C_{21}H_{16}$	[56-49-5]	3-methylcholanthrene				
	SUB	(401–425)	127.2 ± 2.4	413	A	[1987STE/MAL, 1964KEL/RIC]
	V	(323–473)	93.8	398	GC	[2002LEI/CHA]
$C_{21}H_{16}$	[611-48-3]	1,2′-dinaphthylmethane				
	FUS	(12–423)	30.54	369.6		[1996DOM/HEA, 1977FIN/MES]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{21}H_{16}N_2$	[484-47-9]	2,4,5-triphenylimidazole				
	FUS		37.31	547.8	DSC	[2007SIF/AIT]
	TRS		0.73	505.7		
	FUS		35.15	550.8	DSC	[2002ROG/DOM]
$C_{21}H_{16}N_2O_2$	[3179-96-2]	1-anilino-4-(*N*-methylamino)-9,10-anthraquinone				
	SUB		136.9			[1984KAR/KRU]
$C_{21}H_{16}N_4$	[35896-24-3]	(Phenyl-2-pyridinylmethylene)hydrazone-(2-(1*H*)-quinolinone)				
	FUS		35	416.8	DSC	[2013PER/KAZ]
$C_{21}H_{16}N_4O_2$	[194784-98-0]	1-(4′-methoxybenzylidene)-2-phenazinoylhydrazine				
	FUS		63.26	534.3	DSC	[1997CIO/MEL]
$C_{21}H_{17}F_3O$	[145698-51-7]	4-*n*-butoxy-4′-trifluoromethyldiphenyldiacetylene				
	FUS		25.37	414.3	DSC	[1993JUA/CHE]
$C_{21}H_{17}N_3O_3$	[82232-20-0]	(5-cyano-3,4-diphenyl-6-oxo-1,6-dihydropyridazin-1-yl)acetate				
	SUB	(396–414)	131.9 ± 9.3	405	ME	[1982DEP]
$C_{21}H_{15}N_5O$	[120356-23-2]	1-phthalazinyhydrazone-(2-pyridinecarboxaldehyde), 5-(phenylmethoxy)-				
	FUS		40	433.2	DSC	[2013PER/KAZ]
$C_{21}H_{17}N_5O$	[1290504-05-0]	5-benzyloxypyridine-2-aldehyde 4′-quinazolinylhydrazone				
	FUS		41	458.3	DSC	[2013PER/KAZ]
$C_{21}H_{18}F_2$	[193472-73-0]	1,1-difluoro-3,3,3-triphenylpropane				
	FUS		28.74	370.2		[1997SCH/VER]
	SUB		113.2 ± 1.7	298		[1997SCH/VER]
$C_{21}H_{18}F_2$	[145698-37-9]	4-*n*-pentyl-3′,4′-difluorodiphenyldiacetylene				
	FUS		30.86	355.1	DSC	[1993JUA/CHE]
$C_{21}H_{18}O_2$	[900-91-4]	3,3,3-triphenylpropanoic acid				
	FUS		35.4	454.3	DSC	[2011MON/SOU]
	SUB	(402–420)	145.6 ± 0.9	411	ME	[2011MON/SOU]
	SUB	(402–420)	151.8 ± 0.9	298	ME	[2011MON/SOU]
$C_{21}H_{19}F$	[193472-69-4]	1-fluoro-3,3,3-triphenylpropane				
	FUS		26.44	344.2		[1997SCH/VER]
	SUB		129.3 ± 0.6	298		[1997SCH/VER]
	V	(349–384)	95.9 ± 0.6	298	GS	[1997SCH/VER]
$C_{21}H_{19}F$	[193472-72-9]	2-fluoro-1,2,3-triphenylpropane				
	FUS		34.6	379.6		[1997SCH/VER]
	SUB		132.5 ± 3.0	298		[1997SCH/VER]
$C_{21}H_{20}BrN_7O_6$		*N*-[2-[(2-bromo-4,6-dinitrophenyl)azo]-[(2-cyanoethyl)-2-propenylamino]-4-methoxyphenyl] acetamide				
	FUS		59.08	465.2		[1991BAU/WEB]
$C_{21}H_{20}Br_8O_2$		2,2-bis[3,5-dibromo-4-(2,3-dibromopropyloxy)phenyl]propane				
	FUS		39.63			[1999TAH/TAK]
[Note: Solid sample was precipitated from a methanol–dichloromethane mixture. Abstract implies that the compound may have other crystal forms.]						
$C_{21}H_{20}Cl_2O_3$	[61949-76-6]	(3-phenoxyphenyl)methyl-*cis*-3-(2,2-dichloroethenyl-2,2-dimethylcyclopropanecarboxylate (*cis*-permethrin)				
	SUB	(313–333)	108.8	323	GS, A	[1986WEL/GRA]
$C_{21}H_{20}N_4O_3$	[32828-81-2]	4-methoxy-*N*,*N*-bis(3-pyridinylmethyl)-1,3-benzenedicarboxamide (picotamide)				
	FUS		28.43	403.9	DSC	[1998MUR/BET, 1999BET/MUR]
$C_{21}H_{20}O_6$	[458-37-7]	1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione (curcumin)				
	FUS		46	454.4	DSC	[2015LIU/SVA]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{21}H_{20}O_{12}$	[21637-25-2]	2-(3,4-dihydroxyphenyl)-3-(β-D-glucofuranosyloxy)-5,7-dihydroxy-4*H*-1-benzopyran-4-one (isoquercitrin)				
	FUS		49.8	471.2	DSC	[2007CHE/HUM]
$C_{21}H_{21}N$	[1159-53-1]	4-methyl-*N*,*N*-bis(4-methylphenyl)benzenamine				
	FUS		19.95	388.8	DSC	[2006MAN/ROH]
	FUS		22.96	388	DSC	[2005MAN/ROH]
	SUB		92.53		DSC	[2006MAN/ROH]
	V		72.57		DSC	[2006MAN/ROH]
$C_{21}H_{21}N$	[117597-62-3]	*N*-(3-methylphenyl)-*N*,*N*-bis(4-methylphenyl)amine				
	FUS		21.71	329.9	DSC	[2006MAN/ROH]
	SUB		97.64		DSC	[2006MAN/ROH]
	V		75.93		DSC	[2006MAN/ROH]
$C_{21}H_{21}N$	[97413-60-0]	*N*,*N*-bis(3-methylphenyl)-*N*-(4-methylphenyl)amine				
	FUS		26.39	362.7	DSC	[2006MAN/ROH]
	SUB		95.69		DSC	[2006MAN/ROH]
	V		69.29		DSC	[2006MAN/ROH]
$C_{21}H_{21}N$	[20676-79-3]	*N*,*N*,*N*-tris(3-methylphenyl)amine				
	FUS		13.07	313	DSC	[2006MAN/ROH]
	SUB		50.66		DSC	[2006MAN/ROH]
	V		37.59		DSC	[2006MAN/ROH]
$C_{21}H_{21}N$	[620-40-6]	Tribenzylamine				
	TRS		1.1	342.5		
	FUS		21.4	365.6	DSC	[2014GOB/VIK]
	V		92.4 ± 1.4	298	CGC	[2014GOB/VIK]
$C_{21}H_{21}NO$	[957-51-7]	*N*,*N*-dimethyl-2,2-diphenylbenzeneacetamide				
	FUS		25.43	402	DSC	[1990DON/DRE]
$C_{21}H_{21}O_3P$	[855-38-9]	Tris(4-methoxyphenyl)phosphine				
	FUS		25.67	403.82	DSC	[2010GUO/WAN2]
$C_{21}H_{21}O_4P$	[78-30-8]	Phosphoric acid, tris(2-tolyl) ester				
	V	(383–413)	99.3	398	GC-RT	[2014BRO/JAN]
	V	(293–700)	86.8	308	A, I	[1987STE/MAL, 1957DOB/KEL]
$C_{21}H_{21}O_4P$	[563-04-2]	Phosphoric acid, tris(3-tolyl) ester				
	V	(383–413)	103.7	398	GC-RT	[2014BRO/JAN]
	V	(398–530)	123.2	413	A	[1987STE/MAL]
$C_{21}H_{21}O_4P$	[78-32-0]	Phosphoric acid, tris(4-tolyl) ester				
	V	(383–413)	105.7	398	GC-RT	[2014BRO/JAN]
	V	(388–530)	104.9	408	A	[1987STE/MAL]
$C_{21}H_{21}P$	[1038-95-5]	Tris(4-tolyl)phosphine				
	FUS		28.52	417.84	DSC	[2010GUO/WAN2]
	V	(372–394)	126 ± 5	385	ME, TE	[1981DEK/HER]
$C_{21}H_{23}BrFNO_2$	[10457-90-6]	1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-bromophenyl)-1-piperidinyl]-1-butanone (bromoperidol)				
	FUS		50.8	432.7	DSC	[1981DRA/AZI]
$C_{21}H_{23}ClFNO_2$	[52-86-8]	1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-chlorophenyl)-1-piperidinyl]-1-butanone (haloperidol)				
	FUS		54.26	425	DSC	[2010BAI/VAN]
	FUS		48	422.7	DSC	[1981DRA/AZI]
$C_{21}H_{23}F_2NO_2$	[803-45-2]	1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-fluorophenyl)-1-piperidinyl]-1-butanone				
	FUS		34	395.2	DSC	[1981DRA/AZI]
$C_{21}H_{23}NO_5$	[561-27-3]	Diacetylmorphine (heroin)				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(324–339)	144.5 ± 4.0	331	GS	[1984LAW/ELI]
$C_{21}H_{24}FNO_2$	[3109-12-4]	1-(4-fluorophenyl)-4-[4-hydroxy-4-phenyl-1-piperidinyl]-1-butanone				
	FUS (I)		43.2	412.7		
	FUS (II)		35.2	385.2	DSC	[1981DRA/AZI]
$C_{21}H_{24}O_2$	[160731-84-0]	3-(diphenylmethyl)-3-propyl-2,4-pentanedione				
	FUS		27.1	349.2		[1995NOL/VER]
	SUB		124.7	298	T, B	[1995NOL/VER]
	V	(364–392)	96.7 ± 1.7	378	GS	[1995NOL/VER]
$C_{21}H_{25}FN_2O_2$	[1480-19-9]	1-(4-fluorophenyl)-4-[4-(2-methoxyphenyl)-1-piperazinyl]-1-butanone (fluanisone)				
	FUS (I)		27.3	348.7		
	FUS (II)		31.1	343.7		
	FUS (III)		15.7	323.7	DSC	[1981DRA/AZI]
$C_{21}H_{25}F_{19}$	[139277-02-4]	1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluoro-(trifluoromethyl)eicosane				
	FUS		34	310.1	DSC	[1992HOP/MOL]
$C_{21}H_{25}NO$	[122405-21-4]	4-(1-methylheptyloxy)-4′-cyanobiphenyl				
	FUS (I)		19.51	287.6		
	FUS (II)		17.07	294.3	DSC	[2004SAI/MAS]
	FUS (I)		20.8	287.8		
	FUS (II)		19.1	294.3	AC	[2001SCI/SCI]
$C_{21}H_{26}$	[6169-94-4]	[1,8]-para-cyclophane				
	SUB	(354–376)	105 ± 1.3	365		[1969SHI/MCN, 1977PED/RYL]
	SUB	(354–376)	110.9 ± 2.1	298		[1969SHI/MCN, 1977PED/RYL]
$C_{21}H_{26}ClN_3OS$	[58-39-9]	2-chloro-10-3-[1-(2-hydroxyethyl)-4-piperazinyl]propylphenothiazine (perphenazine)				
	FUS		45.3	366.8	DSC	[2015POB/DOM]
	FUS		33.7	369.8	DSC	[2012BRU/MAI]
	FUS		41.8	370	DSC	[2006WAS/HOL]
$C_{21}H_{26}Cl_2O$	[37693-01-9]	2-[(2,4-dichlorophenyl)methyl]-4-(2,4,4-trimethylpentan-2-yl)phenol (clofoctol)				
	FUS		35.13	361	DSC	[2010BAI/VAN]
$C_{21}H_{26}Cl_2O_2$	[15686-33-6]	2,2′-methylenebis(4-chloro-3-Me-isopropylphenol) (biclotymol)				
	FUS (I)		36.55	400.5		
	FUS (II)		28.94	373.8	DSC	[2008CEO/TAM]
$C_{21}H_{26}FNO$	[135529-03-2]	4-octyloxy-*N*-(4-fluorobenzylidene) aniline				
	FUS		44.7	360.5	DSC	[1991MIY/ENO]
$C_{21}H_{26}FN_3O_4$	[143383-65-7]	[*S*-(*R**, *S**)]-1-cyclopropyl-6-fluoro-1,4-dihydro-8-methoxy-7-[3-[1-(methylamino)ethyl]-1-pyrrolidinyl]-4-oxo-3-quinolinecarboxylic acid (premafloxacin)				
	FUS		60.52	471.9	DSC	[1997SCH/BER]
$C_{21}H_{26}N_2O_7$	[66085-59-4]	3-(2-methoxyethyl) 5-propan-2-yl 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylate (nimodipine)				
	FUS		38.5	398.4	DSC	[2015NUR/BOO]
	FUS		41.7	397.2	DSC	[2013GOM/ROD]
	FUS (I)		38.8	396.7		
	FUS (II)		45.72	380.0	DSC	[2012RIE/PER]
	FUS		35.5	400.0	DSC	[2005CAR/ROD]
	FUS		40.9	400.3	DSC	[2004MAR/KOZ]
	FUS (I)		39	397.2		
	FUS (II)		46	389.2	DSC	[1995GRU/KEI]
$C_{21}H_{26}O_2$	[72-33-3]	3-methoxy-19-norpregna-1,3,5(10)-trien-20-yn-17-ol (mestranol)				
	FUS		34.55	424.1		[1985DEM/CHA]
$C_{21}H_{26}O_2$	[521-35-7]	Cannabinol				
	FUS		17.0	352.2		[2004STI/VAL]
$C_{21}H_{26}O_3$	[2549-90-8]	2-hydroxy-4-(2-ethylhexyloxy)benzophenone				
	V	(393–443)	98.7	418	ME	[1984SUR]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{21}H_{26}O_3$	[1843-05-6]	2-hydroxy-4-octyloxybenzophenone				
	V	(413–453)	102.1	433	ME	[1984SUR]
$C_{21}H_{26}O_3$	[68100-20-9]	2-hydroxy-4-butoxy-5-*tert*-butylbenzophenone				
	V	(403–453)	90.2	428	ME	[1984SUR]
$C_{21}H_{26}O_3$	[975-64-4]	3-(1-oxypropoxy)-estra-1,3,5(10)-trien-17-one				
	FUS		23.0	409	DSC	[1990YAN/EIR]
$C_{21}H_{26}O_4$	[6127-74-8]	2-hydroxy-4,4′-dibutoxybenzophenone				
	FUS		54.0	372.1	DSC	[1999PRI/HAW]
	SUB		148.0		B	[1999PRI/HAW]
	V		94.0		TGA	[1999PRI/HAW]
$C_{21}H_{26}O_4$	[96609-16-4]	4-{4-[4-(1,1-dimethylethyl)phenyl]-2-hydroxybutoxy}benzoic acid (lifibrol)				
	FUS (I)		38.1	415.2		
	FUS (II)		49.1	408.2	DSC	[2000BUR/LET]
$C_{21}H_{27}FO_6$	[124-94-7]	Triamcinolone				
	FUS		42.56	543		[1994REG/CHM]
$C_{21}H_{27}NO$	[133544-38-4]	4-octyloxy-*N*-benzylidene aniline				
	FUS		41.47	342.7	DSC	[1991MIY/ENO]
$C_{21}H_{27}N_5O_4S$	[29094-61-9]	*N*-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-5-methyl-2- pyrazinecarboxamide (glipizide)				
	FUS		55.4	471.5	DSC	[2010MUR/PIK2]
$C_{21}H_{28}O_2$	[5630-53-5]	(7α,17α)-17-hydroxy-7-methyl-19-norpregn-5(10)-en-20-yn-3-one (tibolone)				
	FUS (monoclinic)		29.8	444.2	DSC	[2010BAR/ARA]
	TRS (triclinic)		21.0	421.2	DSC	[2010BAR/ARA]
	FUS (triclinic)		3.0	439.2	DSC	[2010BAR/ARA]
$C_{21}H_{28}O_3$	[1097-51-4]	16α,17α-epoxyprogesterone				
	FUS		26.4	328.5	DSC	[2006NIE/GON]
$C_{21}H_{28}O_3$		Heptyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		23.3	300.2	DSC	[1994WEB/MEY]
$C_{21}H_{28}O_4$	[19427-36-2]	11α-hydroxy-16α,17α-epoxyprogesterone				
	FUS		44.8	522.2	DSC	[2006NIE/GON]
$C_{21}H_{28}O_5$	[50-24-8]	Prednisolone				
	FUS		59.3	506	DSC	[1997CAI/GRA]
	FUS		38.86	513		[1994REG/CHM]
$C_{21}H_{28}O_5$	[53-06-5]	Cortisone				
	FUS		36.86	495		[1994REG/CHM]
$C_{21}H_{29}NO_3$	[172589-24-1]	3-[(hydroxyimino)(5,6,7,8-tetrahydro-2-naphthalenyl)methyl-1,2,2-trimethylcyclopentanecarboxylic acid methyl ester				
	FUS		38.37	425	DSC	[1995NUR/LEL]
$C_{21}H_{29}N_3O$	[3737-09-5]	α-[2-[bis(1-methylethyl)amino]ethyl]-α-phenyl-2-pyridineacetamide (disopyramide)				
	FUS		26.7	363.7	DSC	[2008WAS/HOL]
$C_{21}H_{30}$	[7225-71-0]	1-undecylnaphthalene				
	V	(436–502)	84.3	451	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{21}H_{30}O$	[38256-01-8]	l,1′-diadamantyl ketone				
	TRS		5.9	404.7		
	FUS		15.7	470		[1997GAR/RED]
	SUB	(362–378.8)	109.0 ± 1.8	298	ME	[1992ABB/JIM2]
$C_{21}H_{30}O_2$	[57-83-0]	Progesterone				
	FUS		27.8	403.2	DSC	[2010TRI/BIR]
	FUS (I)		26.71	402.2	DSC	[2009BAR/ESP]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS (II)		24.78	394.8	DSC	[2009BAR/ESP]
	FUS (I)		26.16	402.4	DSC	[2003LEG/FEU, 2004DEF/RAN]
	FUS (II)		21.42	395.4	DSC	[2003LEG/FEU, 2004DEF/RAN]
	FUS (III)		16.13	377	DSC	[2003LEG/FEU, 2004DEF/RAN]
	FUS		26.7	402.2	DSC	[1997CAI/GRA]
	FUS		26.99	404		[1994REG/CHM]
	FUS (I)		27.95	401		[1979MUR/IWA, 2009BAR/ESP]
	FUS (II)		23.43	395		[1979MUR/IWA, 2009BAR/ESP]
	FUS (I)		24.43	403.5	DFC	[1973CAM/GAM, 2009BAR/ESP]
	FUS (II)		21.32	396.2	DFC	[1973CAM/GAM, 2009BAR/ESP]
$C_{21}H_{30}O_2$	[13956-29-1]	Cannabidiol				
	FUS		28.4	340.7		[2004STI/VAL]
$C_{21}H_{30}O_3$	[64-85-7]	Deoxycorticosterone				
	FUS		21.3	414.4	DSC	[1997CAI/GRA]
	FUS		27.98	414		[1994REG/CHM]
$C_{21}H_{30}O_3$	[80-75-1]	11α-hydroxyprogesterone				
	FUS		33.3	438.6	DSC	[1997CAI/GRA]
$C_{21}H_{30}O_3$	[600-57-7]	11β-hydroxyprogesterone				
	FUS		35.2	458.3	DSC	[1997CAI/GRA]
$C_{21}H_{30}O_3$	[1045-69-8]	Testosterone acetate				
	FUS		27.88	413		[1994REG/CHM]
$C_{21}H_{30}O_4$	[50-22-6]	Corticosterone				
	FUS		35.3	458.5	DSC	[2008WAS/HOL]
	FUS		33.8	457.4	DSC	[1997CAI/GRA]
	FUS		33.32	454		[1994REG/CHM]
$C_{21}H_{30}O_4$	[152-58-9]	11-deoxy-17-hydroxycorticosterone (cortexolone)				
	FUS		32.5	487.8	DSC	[1997CAI/GRA]
$C_{21}H_{30}O_4$	[641-77-0]	11β,17α-dihydroxyprogesterone				
	FUS		47.9	481.8	DSC	[1997CAI/GRA]
$C_{21}H_{30}O_5$	[50-23-7]	Hydrocortisone				
	FUS		45.50	492.4	DSC	[2010MIY/KHA]
	FUS (I)		44.65	497.7	DSC	
	FUS (II)		41.3	494.8	DSC	[2008SUI/JES]
	FUS		42.2	494.3	DSC	[1997CAI/GRA]
	FUS		35.84	486		[1994REG/CHM]
$C_{21}H_{31}NO$	[224585-11-9]	6-dodecyloxyisoquinoline				
	FUS		38.93	321.3	DSC	[1999LIN/KO]
$C_{21}H_{32}O_2$	[2734-47-6]	Methyl (*Z*,*Z*,*Z*,*Z*)-5,8,11,14,17-eicosapentaeneoate				
	V		121.0 ± 0.3	298	CGC	[2007LIP/KAP]
$C_{21}H_{34}O_2$	[2566-89-4]	Methyl (*Z*,*Z*,*Z*,*Z*)-5,8,11,14-eicosatetraeneoate				
	V		118.3	298	CGC	[2007LIP/KAP]
$C_{21}H_{35}N_3O_2$	[135742-56-2]	*N*-palmitoyl-pyrazinamide				
	FUS		51.82	362.7	DSC	[1991LIU/GUO]
$C_{21}H_{36}$	[2131-18-2]	Pentadecylbenzene				
	V	(495–677)	77.0	510		[1999DYK/SVO]
	V		104.6	298		[1971WIL/ZWO]
$C_{21}H_{36}N_2OS$	[442514-39-8]	*N*-[(3-methoxyphenyl)methyl]-*N*′-dodecylthiourea				
	FUS		52.87	361.7	DSC	[2002ABB/WOH]
$C_{21}H_{36}O$	[501-24-6]	3-pentadecylphenol				
	FUS		38.09	322.4	DSC	[2009MAO/LUO, 2010MAO/LUO]
$C_{21}H_{36}O_2$	[2566-89-4]	Methyl (*Z*,*Z*,*Z*)-11,14,17-eicosadieneoate				
	V		122.6 ± 1.6	298	CGC	[2007LIP/KAP]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{21}H_{36}O_6$		Triisopentyl-*trans*-aconitate				
	V	(396–499)	88.3	411	A	[1987STE/MAL, 1953MAG/MOD]
$C_{21}H_{36}O_6$	[64617-29-4]	Tripentyl-*trans*-aconitate				
	V	(403–505)	91.4	418	A	[1987STE/MAL, 1953MAG/MOD]
$C_{21}H_{38}O_2$	[61012-46-2]	Methyl (*Z*,*Z*)-11,14-eicosadieneoate				
	V		117.5 ± 0.5	298	CGC	[2007LIP/KAP]
$C_{21}H_{38}O_4$	[59223-30-2]	Hexadecyl itaconate				
	FUS		74.6	358.8	DSC	[2016RIC/DEL]
$C_{21}H_{38}O_6$	[621-70-5]	Glycerol tricaproate				
	V		99.9	349	TGA	[1990KIS/SHO]
	V		108.3 ± 3.8	298	TGA	[1990KIS/SHO]
	V	(356–410)	94.2	371	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{21}H_{38}O_6$	[5333-56-2]	Triisopentyl 1,2,3-propanetricarboxylate				
	V	(396–508)	88.2	411	A	[1987STE/MAL, 1953MAG/MOD]
$C_{21}H_{38}O_6$	[5333-53-9]	Tripentyl 1,2,3-propanetricarboxylate				
	V	(404–508)	90.2	419	A	[1987STE/MAL, 1953MAG/MOD]
$C_{21}H_{40}$	[66326-27-0]	1-undecyldecahydronaphthalene				
	V	(426–488)	83.3	411	A	[1987STE/MAL]
$C_{21}H_{40}$	[95115-75-6]	*trans*-2-heptyl-6-butyldecalin				
	FUS		31.8	295.3		[1985VAR/BRI]
$C_{21}H_{40}$	[95115-78-9]	*trans*-2-heptyl-6-octyldecalin				
	FUS		41	308.8		[1985VAR/BRI]
$C_{21}H_{40}O_2$	[2390-09-2]	Methyl (*Z*)-11-eicosenoate				
	V		115.8 ± 0.7	298	CGC	[2007LIP/KAP]
$C_{21}H_{40}O_2$	[4813-57-4]	Octadecyl acrylate				
	FUS		37.3	298.9	DSC	[1992BAB/HWA]
$C_{21}H_{41}NO_3$	[45287-42-1]	*N*-hexadecanoyl-(*l*)-valine				
	TRS		29.1	349.1		
	FUS		54.8	366.6	DSC	[1986MIY/MAT]
$C_{21}H_{41}NO_3$	[83871-20-9]	*N*-hexadecanoyl-(*dl*)-valine				
	FUS		80.5	375.1	DSC	[1986MIY/MAT]
$C_{21}H_{41}NO_3$	[914224-77-4]	*N*-(1-oxononadecyl)glycine				
	TRS + FUS		60.3	398.9	DSC	[2014RED/KRO]
$C_{21}H_{42}$	[1599-68-4]	1-heneicosene				
	V	(392–628)	92.8	407		[1999DYK/SVO]
$C_{21}H_{42}$	[6812-39-1]	Hexadecylcyclopentane				
	V	(498–674)	79.2	513		[1999DYK/SVO]
	V		105.3	298		[1971WIL/ZWO]
$C_{21}H_{42}$	[6006-95-7]	Pentadecylcyclohexane				
	FUS		58.7	298.2	DSC	[2001YOU/SCH]
	FUS		58.3		DSC	[2000YOU/DOL]
	V	(496–677)	77.2	511		[1999DYK/SVO]
	V		104.4	298		[1971WIL/ZWO]
$C_{21}H_{42}N_3PS_6$	[100575-31-3]	Tris(dipropyldithiocarbamate)phosphorous				
	SUB		127.4 ± 4.2		DSC, E	[1999NEV/GOU]
$C_{21}H_{42}O$	[22589-04-4]	2-heneicosanone				
	FUS		77.65	333.9	DSC	[1993VIL/HAM]
$C_{21}H_{42}O$	[19781-72-7]	11-heneicosanone				
	FUS		76.2	336.7		[1993RUE/SAR]
$C_{21}H_{42}O_2$	[1120-28-1]	Methyl eicosanoate				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		74.3	319.2	DSC	[2004CHI/ZHA]
	FUS		73.7	319.2	Cryst	[1936KIN/GAR]
	SUB	(311–318)	190.8 ± 10	314	ME	[1965DAV/KYB, 1987STE/MAL]
	V		111.1 ± 1.5	298	CRT	[2015GOB/CHI]
	V	(467–558)	120.9 ± 2.5	298	CGC	[2004CHI/ZHA]
	V		109.2	350	CE	[2002VAN/VAN]
	V		97.8 ± 0.2	406	CE	[2002VAN/VAN]
	V		116.4 ± 1.5	298	CE	[2002VAN/VAN]
	V	(463–523)	116.2	298	GC	[1997KRO/VEL]
	V	(453–543)	76.9	498	GC	[1993HUS/SAR]
	V	(450–540)	92.4	465	A, E	[1987STE/MAL, 1963ROS/SCH]
$C_{21}H_{42}O_2$	[112-10-7]	Isopropyl stearate				
	FUS		36.9	295.3	DSC	[2009SAR/BIC]
	V	(453–483)	76.6	468	A	[1987STE/MAL]
$C_{21}H_{42}O_2$	[18281-04-4]	Ethyl nonadecanoate				
	FUS		43.1	309		[1967OMA]
	SUB	(302–308)	149.7	305	ME	[1987STE/MAL, 1967OMA]
	V	(312–328)	111	320	A, ME	[1987STE/MAL, 1967OMA]
$C_{21}H_{42}O_2$	[3634-92-2]	Propyl stearate				
	V	(458–483)	87.9	470	A	[1987STE/MAL]
$C_{21}H_{42}O_2$	[2363-71-5]	Heneicosanoic acid				
	TRS		5.0	344.6		
	FUS		63.0	346.7	DSC	[2007GBA/NEG]
	V		149.2 ± 7.1	298	CGC	[2013WIL/CHI]
$C_{21}H_{42}O_3$	[6290-55-7]	Didecyl carbonate				
	FUS		49.3	267.3	DSC	[2010KEN]
$C_{21}H_{43}NO$	[129392-93-4]	*N*-propylstearamide				
	TRS		16.02	348		
	FUS		50.04	354	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[173029-00-0]	*N*-heptylmyristamide				
	TRS		6.54	316		
	FUS		49.02	343	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[153929-66-9]	*N*-decylundecanamide				
	TRS		0.07	337		
	FUS		42.45	344	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[173029-01-1]	*N*-laurylnonanamide				
	TRS		0.17	328		
	FUS		66.91	341	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[173029-02-2]	*N*-myristylheptanamide				
	TRS		2.08	313		
	FUS		52.68	334	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO$	[79762-59-7]	*N*-stearylpropanamide				
	TRS		1.84	337		
	FUS		56.03	350	DSC	[1995CYP/JOH]
$C_{21}H_{43}NO_2$	[6280-27-9]	*N*-octadecyl lactamide				
	V	(434–542)	112.8	449	A	[1987STE/MAL, 1950RAT]
$C_{21}H_{44}$	[629-94-7]	Heneicosane				
	TRS		16.15	30.4		
	FUS		48.26	312.5	DSC	[2016BOU/DJE]
	TRS		15.7	304.3		
	FUS		46.6	313.0	DSC	[2004MON/RAJ]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		13.36	304.0		
	FUS		45.21	313.2	DSC	[2001CHE/BOU]
	FUS		46.6	313.0	DSC	[1999MET/RAJ]
	TRS		15.48	305.7		
	FUS		47.7	313.7	AC	[1996DOM/HEA, 1955SCH/BUS]
	SUB		141.8 ± 10	298	B	[1991PIA/POM]
	V	(351–462)	93.7	368		[2006SAW/MOK]
	V	(434–539)	106.8	298	CGC	[2004CHI/HAN]
	V		109.4 ± 2.6	298	CGC	[1997CHI/WIL]
	V	(365–400)	110 ± 2	382	TE	[1994PIA/FON]
	V	(352–478)	84.7	367	TE, ME, GS	[1991PIA/POM]
	V	(422–630)	88.4	437	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{21}H_{44}$	[1560-84-5]	2-methyleicosane				
	V	(473–621)	70.3	488	A	[1987STE/MAL]
$C_{21}H_{44}$	[6418-46-8]	3-methyleicosane				
	V	(477–620)	74.5	492	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[25117-28-6]	4-methyleicosane				
	V	(471–621)	70.2	486	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[25117-36-6]	5-methyleicosane				
	V	(519–621)	73.2	534	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[75163-99-4]	2,3-dimethylnonadecane				
	V	(493–635)	68.8	508	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[115209-60-4]	2,4-dimethylnonadecane				
	V	(465–594)	77.0	480	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{21}H_{44}$	[114000-79-2]	2,4,6-trimethyloctadecane				
	V	(460–576)	74.9	475	A	[1987STE/MAL, 1999DYK/SVO]
$C_{21}H_{44}$	[13475-75-7]	8-hexylpentadecane				
	V	(405–466)	78.5	420	A	[1987STE/MAL]
$C_{21}H_{44}O_2$	[95008-70-1]	1,21-heneicosanediol				
	TRS		38.8	360		
	FUS		41.7	377.5	DSC	[1999OGA/NAK]
$C_{21}H_{45}PO$	[17262-51-0]	Triheptylphosphine oxide				
	V	(507–638)	70.8	573		[1971NAK/SMI]
The published abstract gives the formula for triheptylphosphine oxide; however, the title of the paper gives the name of trioctylphosphine oxide.						
$C_{22}H_{10}O_2$	[641-13-4]	Anthanthrone (dibenzochrysene-6,12-dione)				
	SUB	(450–550)	152.2	465	A	[1987STE/MAL]
$C_{22}H_{12}$	[191-24-2]	Benzo[*ghi*]perylene				
	FUS		16.3		DSC	[2011FU/SUU]
	FUS		17.37	554.2	DSC	[1991ACR, 1973CAS/VEC, 1980SMI]
	SUB	(399–454)	128.0 ± 2.0		ME	[2011FU/SUU]
	SUB	(313–453)	129.9	383	GS	[1995NAS/LEN]
	SUB	(389–468)	127.8	404	ME	[1987STE/MAL, 1974MUR/POL]
	SUB	(450–510)	135.1	465	A	[1987STE/MAL]
	SUB	(454–502)	125.5	478	ME	[1967WAK/INO]
	V		128.9 ± 1.5	298	CGC	[2008HAN/NUT]
	V	(323–473)	96.1	398	GC	[2002LEI/CHA]
$C_{22}H_{12}$	[191-26-4]	Anthranthrene (dibenzo[*def*,*mno*]chrysene)				
	SUB		135 ± 5	479	ME	[1952INO/SHI]
$C_{22}H_{12}$	[193-43-1]	Indeno[1,2,3-cd]fluoranthene				
	FUS		23.2	542.3	DSC	[2010KES/AUC]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_{12}$	[193-39-5]	Indeno[1,2,3-cd]pyrene				
	FUS		22.9		DSC	[2011FU/SUU]
	FUS		18.6	437	DSC	[2010KES/AUC]
	FUS		16.3	437.7	DSC	[1979FAR/SHA]
	FUS		21.51	435.2		[1980SMI]
	SUB	(384–424)	124.7 ± 1.5		ME	[2011FU/SUU]
$C_{22}H_{12}O_2$	[3029-32-1]	6,13-pentacenequinone				
	SUB		116.3 ± 5.9	298		[1956MAG, 1970COX/PIL]
$C_{22}H_{14}$	[215-58-7]	Dibenz[*a*,*c*]anthracene				
	FUS		25.82	553.5	DSC	[1991ACR, 1973CAS/VEC]
[Note: Authors of [1973CAS/VEC] give the melting point as 553.5 K; other papers report that melting occurs at a much lower temperature in the 480 K range.]						
	SUB	(359–473)	128.8 ± 0.7	416	GS	[2014ABO/MOK]
	SUB	(313–453)	135	383	GS	[1995NAS/LEN]
	SUB	(425–452)	159 ± 6	298	TE, ME	[1980DEK]
	V	(483–523)	110.3 ± 3.5	503	GS	[2014ABO/MOK]
	V		132.3 ± 1.8	298	CGC	[2008HAN/NUT]
	V	(323–473)	97.5	398	GC	[2002LEI/CHA]
$C_{22}H_{14}$	[53-70-3]	Dibenz[*a*,*h*]anthracene				
	FUS		24.5		DSC	[2011FU/SUU]
	FUS		28.4	539.7	DSC	[2010KES/AUC]
	FUS		31.16	544.2	DSC	[1991ACR, 1973CAS/VEC]
	SUB	(346–523)	127.7 ± 2.3	433	GS	[2014ABO/MOK]
	SUB	(399–449)	138.1 ± 5.6		ME	[2011FU/SUU]
	SUB		134.1		GS	[1995NAS/LEN]
	SUB	(436–462)	162 ± 6	298	TE, ME	[1980DEK]
	SUB	(417–502)	141.8	457	ME	[1967WAK/INO]
	V		131.1 ± 1.4	298	CGC	[2008HAN/NUT]
	V	(323–473)	99.4	398	GC	[2002LEI/CHA]
$C_{22}H_{14}$	[194-69-4]	Benzo[*c*]chrysene				
	FUS		22.7	398.5	DSC	[2010KES/AUC]
$C_{22}H_{14}$	[214-17-5]	1,2:6,7-dibenzophenanthrene(benzo[*b*]chrysene)				
	FUS		25.3	574.2	DSC	[2010KES/AUC]
	SUB		136.4	417	ME	[1967WAK/INO]
	SUB	(398–513)	136.9	413	A	[1987STE/MAL]
$C_{22}H_{14}$	[135-48-8]	Pentacene				
	SUB	(503–543)	117.3 ± 0.7		TGA	[2013SHA/SHT]
	SUB	(443–483)	156.9 ± 13.6	463	ME	[1998OJA/SUU]
	SUB	(494–526)	154 ± 5	512	ME, TE	[1980DEK]
	SUB	(495–530)	184 ± 10	298	ME, TE	[1980DEK]
	SUB	(455–555)	157.7	505	ME	[1967WAK/INO]
$C_{22}H_{14}$	[213-46-7]	Picene				
	FUS		35.19	637.2	DSC	[1973CAS/VEC]
	SUB	(409–527)	140.7	424	A	[1987STE/MAL]
	SUB	(425–488)	140.1	456	ME	[1967WAK/INO]
$C_{22}H_{14}N_4$	[1154424-98-2]	1,4-bis((pyridine-3-ylimo)methyl)benzene				
	FUS		40.7	438.2	DSC	[2008STI/CIN]
$C_{22}H_{14}O_4$	[3363-97-1]	1,4-bis(phenylglyoxaloyl)benzene				
	FUS		32.3	425.1		[1996DOM/HEA, 1977KAR/RAB]
$C_{22}H_{16}$	[796-30-5]	1,4-diphenylnaphthalene				
	SUB	(378–394)	130.4 ± 0.4	385	ME	[2012LIM/ROC]
	SUB	(378–394)	132.5 ± 0.6	298	ME	[2012LIM/ROC]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_{16}$	[1038-67-1]	1,8-diphenylnaphthalene				
	SUB	(361–389)	124.2 ± 0.2	376	ME	[2012LIM/ROC]
	SUB	(361–389)	126.4 ± 0.5	298	ME	[2012LIM/ROC]
$C_{22}H_{16}$	[82777-03-5]	1-(4-biphenylyl)naphthalene				
	SUB	(390–414)	136.1 ± 0.5	400	ME	[2012LIM/ROC]
	SUB	(390–414)	138.9 ± 0.8	298	ME	[2012LIM/ROC]
$C_{22}H_{16}$	[68862-02-2]	2-(biphen-4-yl)naphthalene				
	FUS		25.1	489.5	DSC	[2008ROU/LIM]
	SUB	(405–437)	137.1 ± 0.4	421	ME	[2008ROU/LIM]
	SUB	(405–437)	140.2 ± 1.3	298	ME	[2008ROU/LIM]
$C_{22}H_{16}$	[87294-80-2]	2-(biphen-3-yl)naphthalene				
	FUS		18.5	346.3	DSC	[2008ROU/LIM]
	V	(381–413)	104.4 ± 1.2	397	ME	[2008ROU/LIM]
	V	(381–413)	118.6 ± 1.5	298	ME	[2008ROU/LIM]
$C_{22}H_{16}Br_2N_2S_2$	[1448890-50-3]	1,4-bis[[(4-bromophenyl)methyl]thio]phthalazine				
	FUS		23.47	457.5	DSC	[2013JIM/PLA]
$C_{22}H_{16}C_{12}N_2S_2$	[1448890-48-9]	1,4-bis[[(4-chlorophenyl)methyl]thio]phthalazine				
	FUS		20.75	416.0	DSC	[2013JIM/PLA]
$C_{22}H_{16}O$	[81-37-8]	3,8-dimethylnaphtho[3,2,1-kl]xanthene (3,8-dimethylceroxene)				
	SUB	(373–433)	138.2	388	A	[1987STE/MAL]
$C_{22}H_{17}C1N_2$	[23593-75-1]	1-[(2-chlorophenyl)(diphenyl)methyl]-1*H*-imidazole(clotrimazole)				
	FUS		36.97	418.91	DSC	[2015PAT/PAT]
	FUS		33.34	418	DSC	[2010BAI/VAN]
$C_{22}H_{17}NO_2$	[850804-64-7]	2-ethylphenyl acridine-9-carboxylate				
	FUS		30.4	393	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[128649-37-6]	2,5-dimethylphenyl acridine-9-carboxylate				
	FUS		37.9	457	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[216668-66-5]	2,6-dimethylphenyl acridine-9-carboxylate				
	FUS		29.1	435	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[1262526-52-2]	3,4-dimethylphenyl acridine-9-carboxylate				
	FUS		29.2	442	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_2$	[1262526-53-3]	3,5-dimethylphenyl acridine-9-carboxylate				
	FUS		38.4	469	DSC	[2010KRZ/MAL]
$C_{22}H_{17}NO_3S$	[36245-88-2]	2-(3-methyoxypropyl)-1*H*-xantheno[2,2,9-def]-isoquinoline-1,3(2*H*)-dione				
	SUB	(605–647)	111.8	620	A	[1987STE/MAL]
	SUB	(647–685)	150.8	662	A	[1987STE/MAL]
$C_{22}H_{17}NO_4$	[126430-58-8]	2,6-dimethoxyphenyl acridine-9-carboxylate				
	FUS		23.2	480	DSC	[2010ZAD/KRZ]
$C_{22}H_{18}Br_2N_4$	[1448890-41-2]	N^1,N^4-bis[(4-bromophenyl)methyl]-1,4-phthalazinediamine				
	FUS		21.87	555.2	DSC	[2013JIM/PLA]
$C_{22}H_{18}Cl_2N_4$	[1448890-39-8]	N^1,N^4-bis[(4-chlorophenyl)methyl]-1,4-phthalazinediamine				
	FUS		U1.63	444.6	DSC	[2013JIM/PLA]
$C_{22}H_{18}Cl_2O_2$	[153977-22-1]	2-[4-(4-chlorophenyl)cyclohexyl]-3-chloro-1,4-naphthoquinone				
	FUS		35.0	457.2	DSC	[2010MAL/FUG]
$C_{22}H_{18}F_2O$	[145698-40-4]	4-(6-hexenyloxy)-3′,4′-difluorodiphenyldiacetylene				
	FUS		37.45	370	DSC	[1993JUA/CHE]
$C_{22}H_{18}F_2O$	[153038-12-1]	4-(*cis*-4-hexenyloxy)-3′,4′-difluorodiphenyldiacetylene				
	FUS		35.32	364.4	DSC	[1993JUA/CHE]
$C_{22}H_{18}F_2O$	[153038-13-2]	4-(*cis*-3-hexenyloxy)-3′,4′-difluorodiphenyldiacetylene				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		30.97	364.6	DSC	[1993JUA/CHE]
$C_{22}H_{18}N_2$	[60628-96-8]	1-([1,1′-biphenyl]-4-ylphenylmethyl)-1*H*-imidazole (bifonazole)				
	FUS		39.22	424	DSC	[2010BAI/VAN]
	FUS		37.5	423.0	DSC	[2010DOM/POB]
$C_{22}H_{18}N_2O_2$	[116-77-8]	1-amino-2-methyl-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	SUB	(418–435)	142.2 ± 2.3	426		[1984KRI]
$C_{22}H_{18}N_2O_2$	[6408-50-0]	1-(*N*-methylamino)-4-[(3-methylphenyl)amino]-9,10-anthraquinone				
	SUB	(418–434)	129.0 ± 4.7	426		[1984KRI]
$C_{22}H_{18}N_2O_2$	[128-85-8]	1-(*N*-methylamino)-4-[(4-methylphenyl)amino]-9,10-anthraquinone				
	SUB	(403–426)	153.9 ± 3.9	414		[1984KRI]
$C_{22}H_{18}N_2S_2$	[1448890-46-7]	1,4-bis[(phenylmethyl)thio]phthalazine				
	FUS		25.4	500.0	DSC	[2013JIM/PLA]
$C_{22}H_{18}O_4$	[523-31-9]	Dibenzyl phthalate				
	V	(445–513)		121.4	460 A	[1987STE/MAL]
$C_{22}H_{18}O_{11}$	[989-51-5]	3,4,5-trihydroxybenzoic acid, (2R,3R)-3,4-dihydro-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)-2*H*-1-benzopyran-3-yl ester				
	FUS		63.3	429.2	DSC	[2010PAR/LEE]
$C_{22}H_{19}Br_2NO_3$	[52918-63-5]	(*S*)-α-cyano-3-phenoxybenzyl (1R)-*cis*-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate				
	FUS		40.71	372.9	DSC	[1990DON/DRE]
Chemical Abstracts gives a CAN Registry Number of [52918-63-5] for the compound studied by the authors of reference [990DON/DRE]. The authors of the paper, however, give a Registry Number of [52918-63-5]						
$C_{22}H_{19}Br_2NO_3$	[52918-63-5]	(1R,3R)-3-(2,2-dibromoethenyl)-2,2-dimethylcyclopropanecarboxylic acid, (*S*)-cyano(3- phenoxyphenyl) methyl ester (deltamethrin)				
	FUS	(80–400)	26.73	372.2	AC	[2005XUE/WAN]
$C_{22}H_{19}ClO_3$	[95233-18-4]	2-[4-(4-chlorophenyl)cyclohexyl]-3-hydroxy-1,4-naphthoquinone (atovaquinone)				
	FUS		35.0	493.2	DSC	[2010MAL/FUG]
$C_{22}H_{19}N_5O_3$	[244272-54-6]	6-(4-biphenylyl)-3,9-dihydro-3-[(2-hydroxyethoxy)methyl]-9-oxo-5*H*-imidazol[1,2-a]pyrine				
	FUS		45.43	484.5	DSC	[1999ZIE/GOL]
$C_{22}H_{20}N_2O_4$	[36360-34-6]	*N*,*N*′-bis(2-methoxyphenyl)terephthalamide				
	SUB	(183–197)	197.5 ± 4.2		ME	[1973HAM/MIT, 1977PED/RYL]
$C_{22}H_{20}N_2O_4$	[6957-81-9]	*N*,*N*′-bis(3-methoxyphenyl)terephthalamide				
	SUB		209.2 ± 8.4		E	[1973HAM/MIT2, 1977PED/RYL]
$C_{22}H_{20}N_2O_4$	[7144-15-2]	*N*,*N*′-bis(4-methoxyphenyl)terephthalamide				
	SUB		227.6 ± 8.4		E	[1973HAM/MIT2, 1977PED/RYL]
$C_{22}H_{20}N_4$	[90678-66-3]	N^1,N^4-bis(phenylmethyl)-1,4-phthalazinediamine				
	FUS		21.0	427.3	DSC	[2013JIM/PLA]
$C_{22}H_{20}N_4S_2$	[1448890-45-6]	4,4′-[1,4-phthalazinediylbis(iminomethylene)]bis(benzenethiol)				
	FUS		U3.52	388.7	DSC	[2013JIM/PLA]
$C_{22}H_{21}Cl_3N_4O$	[168273-06-1]	5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-*N*-1-piperidinyl-1*H*-pyrazole-3-carboxamide(rimonabant)				
	FUS (I)		30.75	428.3		
	FUS (II)		31.12	429.2	DSC	[2013PER/BAU]
	FUS		36.1	427.9	DSC	[2007BER/WAS]
$C_{22}H_{21}F$	[193472-71-8]	2-benzyl-2-fluoro-1,3-diphenylpropane				
	FUS		24.35	363.6		[1997SCH/VER]
	SUB		127.5 ± 0.8	298		[1997SCH/VER]
$C_{22}H_{21}F_{25}$	[93454-72-9]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluorodocosane				
	TRS		1.0	207		
	TRS		9.5	342		
	FUS		25.8	365	DSC	[1991HOP/MOL, 1988HOP/PUG]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		7.5	339.2		
	FUS		22.2	357.2	DSC	[1986RUS/RAB]
$C_{22}H_{22}$	[43044-69-5]	1,1,1-triphenylbutane				
	FUS		21.84	351.1	DSC	[1999VER3]
	SUB	(323–347)	112.1 ± 1.1	335	GS	[1999VER3]
	SUB	(323–347)	114.3 ± 1.1	298	GS	[1999VER3]
$C_{22}H_{22}$	[4742-04-5]	tribenzylmethane				
	V	(395–648)	79.0	521		[1999DYK/SVO, 1959GIL/TOM]
$C_{22}H_{22}FN_3O_2$	[548-73-2]	1-{1-[4-(4-fluorophenyl)-4-oxobutyl]-1,2,5,6-tetrahydropyridin-4-yl]-1,3-dihydro-2*H*- benzimidazol-2-one (droperidol)				
	FUS		40.0	416	DSC	[2010BAI/VAN]
$C_{22}H_{23}C1N_2O_2$	[79794-75-5]	ethyl 4-(8-chloro-5,6-dihydro-11*H*-benzo[5,6]cyclohepta[1,2*b*]pyridin-11-ylidine)-1- piperidinecarboxylate (loratadine)				
	FUS		27.3	409	DSC	[2010BAI/VAN]
	FUS		33.2	411.2	DSC	[2007RAM/CAV]
$C_{22}H_{23}NO_3$	[39515-41-8]	2,2,3,3-tetramethylcyclopropanecarboxylic acid, cyano(3-phenoxyphenyl)methyl ester (fenpropathrin)				
	FUS	(80–400)	18.57	322.5	AC	[2001TAN/XUE, 1999XUE/TAN]
$C_{22}H_{24}N_2O_2$	[16087-30-2]	*N*,*N*′-ethylenebis(3-amino-1-phenylbut-2-en-1-one)				
	SUB	(407–426)	192.9 ± 5.3	415	ME	[1995RIB/RIB]
	SUB	(407–426)	198.8 ± 5.3	298	ME	[1995RIB/RIB]
$C_{22}H_{24}O_3$	[138306-50-0]	4-methyl-4-propyl-1,8-diphenyl-2,3,5-trioxabicyclo[4.3.0]non-7-ene				
	FUS		16.6	351.2	DSC	[1991JEF/JAB]
$C_{22}H_{24}O_3$	[104225-44-7]	3-([1,1-biphenyl]-4-ylcarbonyl)-1,2,2,-trimethylcyclopentanecarboxylic acid				
	FUS		27.69	444.2	DSC	[1992TER/PAU]
$C_{22}H_{25}F_{21}$	[93454-71-8]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosofluorodocosane				
	TRS		6.0	334.1		
	FUS		27.0	338.1	DSC	[1992HOP/MOL]
$C_{22}H_{25}NO$	[6018-34-4]	(+) 5,7,8,15-tetrahydro-3,4-dimethoxy-6,15-dimethyl-,3]benzodioxolo-[5,6*e*][2]benzazecin-14(6)- one (corycavidine)				
	FUS		38.07	468.3		[2000KAM/YOS]
$C_{22}H_{25}NO_3$	[126675-75-0]	2-(4-nitrophenyl)-1-[4-(*trans*-4-ethylcyclohexyl)phenyl] ethanone				
	FUS		37.32	445.1	DSC	[2002SPA/DZI]
$C_{22}H_{25}NO_6$	[836602-50-7]	methyl naltrexone-3-O-carbonate				
	FUS		10.92	393.7	DSC	[2004PIL/HAM]
$C_{22}H_{26}$	[59358-70-2]	1,1′-diphenyl-1,1′-bicyclopentyl				
	FUS		31.38	414	DSC	[1983KRA/BEC]
	SUB		141.4	141.4	E, B	[1983KRA/BEC]
$C_{22}H_{26}FNO_2$	[1050-79-9]	1-(4-fluorophenyl)-4- [4-hydroxy-4-(4-methylphenyl)-1-piperidinyl]-1-butanone (moperone)				
	FUS (I)		37.4	398.2		
	FUS (II)		15.0	468.2	DSC	[1981DRA/AZI]
$C_{22}H_{26}N_2O_2$	[17354-14-2]	1,4-bis(*N*-butylamino)-9,10-anthraquinone (Solvent blue 35)				
	SUB	(389–398)	116.4 ± 2.3	394		[1984KRI]
	V	(398–463)	109.3	431	GC	[2002SAW/SHI]
$C_{22}H_{26}N_2O_2$	[19720-45-7]	1,4-bis(*N*-isobutylamino)-9,10-anthraquinone				
	SUB	(368–388)	96.4 ± 2.1	378		[1984KRI]
$C_{22}H_{27}NO_2$	[17230-88-5]	Pregna-2,4-dien-20-yno[2,3-d]isoxazol-17-ol (danazol)				
	FUS		31.9		DSC	[2010MUR/PIK2]
	FUS		35.5	501.8	DSC	[2007BER/WAS]
$C_{22}H_{28}N_2O$	[437-38-7]	*N*-phenyl-*N* [1-(2-phenylethyl)-4-piperidinyl]propanamide (fentanyl)				
	FUS		30.1	358.3	DSC	[2008GUP/GAN]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		22.51	357.2	DTA	[1988ROY/FLY]
	SUB	(423–493)	144.6 ± 7.2	298	V + F	[2008GUP/GAN]
	V	(423–493)	107.2 ± 4.2	458	TGA	[2008GUP/GAN]
$C_{22}H_{28}N_2O_2$	[145513-29-7]	(4R,4′R,5R,5′R)-5,5-diphenyl-3,3′,4,4′-tetramethyl-2,2′-bioxazolidine				
	FUS		31.9	394	DSC	[1995TOR/GUD]
	SUB	(349–358)	130.8 ± 0.8	356	ME	[1995TOR/GUD]
$C_{22}H_{28}N_2O_2$	[145438-85-3]	(2R,3R, 6R, 7R)-2,6-diphenyl-3,4,7,8-tetramethyl-*cis*-perhydro-[1,4]-oxazino-[3,2-b]-[1,4]-oxazine				
	FUS		20.9	396.8	DSC	[1995TOR/GUD]
	SUB	(353–364)	116.6 ± 1.0	358	ME	[1995TOR/GUD]
$C_{22}H_{28}N_2O_2$	[145438-85-3]	(2R,3S, 6R,7S)-2,6-diphenyl-3,4,7,8-tetramethyl-*cis*-perhydro-[1,4]-oxazino-[3,2-b]-[1,4]-oxazine				
	FUS		18.4	379.4	DSC	[1995TOR/GUD]
	SUB	(356–364)	123.1 ± 1.6	358	ME	[1995TOR/GUD]
$C_{22}H_{28}O$	[33574-11-7]	2,4,6-triisopropylbenzophenone				
	SUB	(353–364)	116 ± 7	298	C	[1982INA/MUR2]
$C_{22}H_{28}O$	[33574-16-2]	3′,5′-diisopropyl-4,4-dimethyl-3-phenyl-1,2-benzocyclobuten-3-ol				
	SUB	(354–364)	117.9	298	C	[1982INA/MUR2]
$C_{22}H_{28}O_2$	[54048-10-1]	13-ethyl-17-hydroxy-11-methylene-18,19-dinorpregn-4-en-20-yn-3-one(etonogestrel)				
	FUS		31.15	472.2	DSC	[2002VAN/KRU]
$C_{22}H_{28}O_3$	[2353-34-6]	3-[(1-oxobutyl)oxy]-estra-1,3,5(10)-trien-17-one				
	FUS		22.0	381	DSC	[1990YAN/EIR]
$C_{22}H_{28}O_3$	[51-98-9]	19-nor-17α-ethynyl-17 β-acetoxy-4-androsten-3-one				
	FUS		27.3	480	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{22}H_{28}O_{10}P_2S$	[71855-69-1]	2,2′-[sulfonylbis(4,1-phenyleneoxy)]bis[5,5-dimethyl-1,3,2-dioxaphosphorinane-2,2′-dioxide				
	FUS		41.62	551.8	DSC	[2014JIA/WAN2]
$C_{22}H_{29}FO_5$	[50-02-2]	9-fluoro-11β,17,21-trihydroxy-16α-methylpregna-1,2-diene-3,20-dione(dexamethasone)				
	FUS		42.02	539		[1994REG/CHM]
$C_{22}H_{29}FN_3O_9P$	[1190307-88-0]	Isopropyl(2*S*)-2-[[[(2*R*,3*R*,4*R*,5*R*)-5-(2,4-dioxopyrimidin-1-yl)-4-fluoro-3-hydroxy-4-methyl-tetrahydrofuran-2-yl]-methoxy-phenoxyphosphoryl]amino]propanoate (sofosbuvir)				
	FUS (I)		21.93	372.9		
	FUS (II)		39.74	393.9		
	FUS (III)		35.80	395.4	DSC	[2015QI/HON]
$C_{22}H_{29}NO_2$	[133544-40-8]	4-*n*-octyloxy-*N*-(4-methoxybenzylidene)aniline				
	FUS		42.29	377.3	DSC	[1995MIY/NAK]
$C_{22}H_{30}N_2O_2S$	[56030-54-7]	*N*-[4-(methoxymethyl)-1-[2-(2-thienyl)ethyl]-4-piperidinyl]-*N*-phenylpropanamide (sufentanil)				
	FUS		23.85	370.2	DTA	[1988ROY/FLY]
$C_{22}H_{30}O_3$		Octyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		29.3	306.9	DSC	[1994WEB/MEY]
$C_{22}H_{31}NO_4$	[23257-62-7]	*N*,*N*-bis(3-phenoxy-2-hydroxypropyl)butyl amine				
	SUB		146.0 ± 4.2		ME	[1976KUZ/MIR]
	V		131.0			[1976KUZ/MIR]
	V	(363–411)	114.3	378	A	[1987STE/MAL]
[Note: [1987STE/MAL] gives the transition as a sublimation; however, the measurement temperatures are above the reported melting point temperature of 363 K given in [1976KUZ/MIR]]						
$C_{22}H_{32}O_3$	[57-85-2]	Testosterone propionate				
	FUS		25.64	393		[1994REG/CHM]
$C_{22}H_{33}F_{13}O$	[1240205-66-6]	1-[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)oxy]tetradecane				
	FUS		33.19	292.4	DSC	[2010ZAG/CON]
$C_{22}H_{33}N_3O_2$	[765303-86-4]	Pyrimethanil decylate				
	FUS	(78–373)	45.88	311	AC	[2005SUN/LIU]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_{34}N_4O_4$	[501946-58-3]	1,1′-(1,12-dodecanediyl)bisthymine				
	FUS		43.95	462	DSC	[2002ITA/KAM]
$C_{22}H_{36}O_2$	[6217-54-5]	(4*Z*,7*Z*,10*Z*,13*Z*,16*Z*,19*Z*)-docosahexenoic acid				
	V		162.9 ± 2.3	298	CGC	[2015WIL/GOB]
$C_{22}H_{36}O_4$	[118476-23-6]	2,5-di-*n*-octyloxy-1,4-benzoquinone				
	TRS		9.4	358.2		
	FUS		43.0	405.8	DSC	[1996KEE/VAN]
$C_{22}H_{38}$	[1459-09-2]	Hexadecylbenzene				
	V		(505–688)	79.5	520	[1999DYK/SVO]
$C_{22}H_{38}$	[54934-70-2]	1,1-bis(decahydro-1-naphthyl)ethane				
	V	(432–503)	77.3	447	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{22}H_{38}$	[54934-69-9]	1,2-bis(decahydro-1-naphthyl)ethane				
	V	(440–507)	89.3	455	A	[1987STE/MAL]
$C_{22}H_{38}$	[54934-71-3]	1,5-dicylopentyl-3-(2-cyclopentylethyl)-2-pentene				
	V	(427–492)	81.4	442	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{22}H_{38}$	[62678-54-0]	*meso*-3,4-di(1-cyclohexen-1-yl)-2,2,5,5-tetramethylhexane				
	SUB	(347–404)	117.2 ± 2.4	376	T	[1993HER/BEC]
$C_{22}H_{38}N_4O_2$	[126235-07-2]	8-pentadecyltheophylline				
	FUS		27.2	413.7	DSC	[1991ACR, 1989GON/KRA]
$C_{22}H_{40}$	[55255-85-1]	1,5-dicylopentyl-3-(2-cyclopentylethyl)-2-pentane				
	V	(430–494)	83.6	445	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{22}H_{40}O_2$	[31067-26-2]	3,3,6,6,10,10,13,13-octamethylcyclotetracane-1,8-dione				
	FUS		24.7	492.2		[1972BOR/DAL2]
$C_{22}H_{40}O_4$	[38734-13-3]	1,10-cyclooctadecanedione bis ethylene ketal				
	FUS		33.56	378.2		[1972ALV/BOR]
$C_{22}H_{42}$		*meso*-(*E*,*E*)-5,6-di-*tert*-butyl-2,2,9,9-tetramethyl-3,7-decadiene				
	SUB	(297–353)	110.0 ± 1.7	325	T	[1995HER/VER]
$C_{22}H_{42}$		(*dl*)-(*E*,*E*)-5,6-di-*tert*-butyl-2,2,9,9-tetramethyl-3,7-decadiene				
	SUB	(297–346)	74.4 ± 1.7	307	T	[1995HER/VER]
$C_{22}H_{42}O_2$	[142-77-8]	Butyl oleate				
	V	(353–393)	97.7	368	A	[1987STE/MAL, 1958ROM/GOR]
$C_{22}H_{42}O_2$	[112-86-7]	*cis*-13-docosenoic acid (erucic acid)				
	TRS		8.9	282.2		
	FUS		54.0	307.2	DSC	[1997SAT/YAN]
	SUB		207.6 ± 2.2	298	V + F	[2015WIL/GOB]
	V		154.6 ± 2.2	298	CGC	[2015WIL/GOB]
	V		154.5 ± 7.3	298	CGC	[2013WIL/CHI]
	V	(479–655)	98.2	494	A	[1987STE/MAL]
$C_{22}H_{42}O_2$	[506-33-2]	*trans*-13-docosenoic acid				
	V	(482–656)	103.4	497	A	[1987STE/MAL]
$C_{22}H_{42}O_4$	[123-79-5]	Dioctyl adipate				
	V	(373–493)	99.0	388	A	[1987STE/MAL]
$C_{22}H_{42}O_4$	[2449-10-7]	Dihexyl sebacate				
	V		99.9	344	TGA	[1990KIS/SHO]
	V		106.4 ± 3.7	298	TGA	[1990KIS/SHO]
$C_{22}H_{42}O_6$	[141-19-5]	bis(2-butoxyethyl) sebacoate				
	V	(368–423)	120.3	383	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{22}H_{43}NO_3$	[14379-42-1]	*N*-hexadecanoyl-(*l*)-leucine				
	FUS		46.1	367.1	DSC	[1986MIY/MAT]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_{43}NO_3$	[21394-54-7]	*N*-hexadecanoyl-(*dl*)-leucine				
	TRS		4.3	333.1		
	FUS		60.6	355.1	DSC	[1986MIY/MAT]
$C_{22}H_{43}NO_3$	[617703-96-5]	*N*-(1-oxoeicosyl)glycine				
	TRS + FUS		61.4	400.5	DSC	[2014RED/KRO]
$C_{22}H_{43}NO_3$	[439215-41-5]	Decanoic acid,2-[(1-oxodecyl)amino]ethyl ester				
	FUS		63.1	337.2	DSC	[2010KAM/TAR]
$C_{22}H_{44}$	[1599-67-3]	1-docosene				
	V	(401–640)	95.6	416		[1999DYK/SVO]
$C_{22}H_{44}$	[6812-38-0]	Hexadecylcyclohexane				
	V	(507–689)	79.6	522		[1999DYK/SVO]
	V		109.3	298		[1971WIL/ZWO]
$C_{22}H_{44}$	[23014-56-4]	1,1,10,10-tetramethylcyclooctadecane				
	FUS		39.58	359.2		[1974BJO/BOR]
$C_{22}H_{44}N_2O_2$	[31827-03-9]	*N*,*N*′-di-*n*-hexylsebacamide				
	FUS		53.56	415		[1996DOM/HEA, 1953WIL/DOL]
$C_{22}H_{44}O_2$	[123-95-5]	Butyl stearate				
	FUS		41.2	296.9	DSC	[2009SAR/BIC]
	TRS	(286–304)	2.22	288.4		
	FUS	(286–304)	37.48	299.7	AC	[1986KAL/JAC]
	V	(352–399)	99.9	367	A, T	[1987STE/MAL, 1949PER/WEB]
$C_{22}H_{44}O_2$	[18281-05-5]	Ethyleicosanoate				
	FUS		68.62	315		[1967OMA]
	FUS		68.6	313.6	Cryst	[1934KIN/GAR]
	SUB	(307–313)	171.5	310	ME	[1987STE/MAL, 1967OMA]
	V	(318–460)	113.7	333	A	[1987STE/MAL]
$C_{22}H_{44}O_2$	[6064-90-0]	Methyl heneicosanoate				
	FUS		75.1	321.2	DSC	[2004CHI/ZHA]
	V		116.3 ± 3.1	298	CRT	[2015GOB/CHI]
	V		121.7 ± 2.9	298	CGC	[2015GOB/CHI]
	V	(459–529)	95.6	474	A, E	[1987STE/MAL, 1963ROS/SCH]
$C_{22}H_{44}O_2$	[36528-28-6]	Decyldodecanoate				
	FUS		63.67	293.2	DSC	[1999BAL/WEI]
$C_{22}H_{44}O_2$	[42232-25-7]	Hexylhexadecanoate				
	FUS		56.19	287.6	DSC	[1999BAL/WEI]
$C_{22}H_{44}O_2$	[112-85-6]	Docosanoic acid (behenic acid)				
	TRS		3.6	340.9		
	FUS		66.3	352.3	DSC	[2013WIL/CHI]
	FUS		81.7	349.2	DSC	[2011EGO/MAR]
	FUS		80.5	353.9	DSC	[2004INO/HIS3]
	V		155.1 ± 7.1	298	CGC	[2015WIL/GOB]
	V		154.7 ± 7.3	298	CGC	[2013WIL/CHI]
	V	(373–600)	122.3	388	A	[1987STE/MAL]
$C_{22}H_{44}O_4$	[56444-64-5]	2,2,13,13-tetramethyl-1,3,12,14-tetraoxacyclodocosane				
	FUS		61.9	374		[1975BOR]
$C_{22}H_{45}Br$	[6938-66-5]	1-bromodocosane				
	TRS		23.14	303.8		
	FUS		44.98	317.1	C	[1953HOF/DEC]
$C_{22}H_{45}NO$	[3061-75-4]	Docosanamide				
	FUS		63.3	383.3	DSC	[2008ABA/BAD]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_{45}NO$	[74534-12-6]	*N*-hexyl hexadecanamide				
	FUS		57.0	343.1	DSC	[1993ACR, 1980CAR/BUS]
$C_{22}H_{45}NO$	[55334-54-8]	*N*,*N*-dioctylhexanamide				
	V	(463–513)	88.1 ± 1.0	298	CGC	[2009PAN/ANT]
$C_{22}H_{46}$	[629-97-0]	docosane				
	FUS		U33.3	316.9	DSC	[2014BAE/DAH]
	TRS		28.96	317.2		
	FUS		49.16	318.1	DSC	[2013WAN/TOZ]
	TRS		27.3	315.8		
	TRS		<0.3	316.1		
	FUS		49.1	316.6	DSC	[2004MON/RAJ]
	TRS		28.61	315.5		
	FUS		47.8	316.8		[1991CLA/LET]
	TRS		36.4	314.5		
	FUS		39.8	315.2	DSC	[1991DOM/WYR]
	FUS		78.5	316.9		[1991BAR/SCH]
	TRS		29.51	315.2		
	FUS		47.84	316.1		[1990DOM/HEA]
	TRS		28.2	316.3		
	FUS		48.9	317.3		[1973COM]
	TRS + FUS		78.4	316.2		[1969ATK/RIC]
	TRS		28.2	316.2		
	FUS		48.95	317.2	AC	[1955SCH/BUS]
	SUB		172.6 ± 2.0	391	B	[1994PIA/FON]
	SUB		U151.1 ± 10	298	B	[1991PIA/POM]
	V		110.0 ± 3.2	298	CRT	[2015GOB/CHI]
	V		111.0 ± 0.1	298	CGC	[2015GOB/CHI]
	V	(434–539)	111.9	298	CGC	[2004CHI/HAN]
	V		114.9 ± 0.3	298	CGC	[2002CHI/WEB]
	V		115.6 ± 1.9	298	CGC	[1997CHI/WIL]
	V	(453–503)	115.6	298	CGC	[1995CHI/HOS]
	V	(453–573)	84.3	468		[1994MOR/KOB]
	V	(372–410)	124 ± 2	391	TE	[1994PIA/FON]
	V	(358–490)	89.9	373	TE, ME, GS	[1991PIA/POM]
	V	(353–462)	100.9	368		[1988SAS/JOS]
	V	(431–642)	91.3	446	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{22}H_{46}$	[1560-82-3]	2-methylheneicosane				
	V	(485–640)	76.1	500	A	[1987STE/MAL]
$C_{22}H_{46}$	[6418-47-9]	3-methylheneicosane				
	V	(484–631)	74.4	499	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[25117-29-7]	4-methylheneicosane				
	V	(497–632)	70.9	494	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[25117-37-7]	5-methylheneicosane				
	V	(483–632)	73.9	498	A	[1987STE/MAL, 1999DYK/SVO]
$C_{22}H_{46}$	[75163-98-3]	2,4-dimethyleicosane				
	V	(471–603)	77.5	486	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[102886-19-1]	2,4,6-trimethylnonadecane				
	V	(470–587)	77.3	485	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{22}H_{46}$	[71005-15-7]	8-heptylpentadecane				
	V	(298–313)	107.7	305	A	[1987STE/MAL]
$C_{22}H_{46}O$	[661-19-8]	1-docosanol				
	FUS	(80–400)	85.07	340.8	AC	[2008TON/TAN3]
	TRS + FUS		82.8	344.5	DSC	[2006NIC/KWE]
	FUS		86.06	343.9		[2001VAN/OON2]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		17.24	333.9		
	FUS		46.57	345.2		[1979KUC/SKU]
	SUB	(335–341)	206.7 ± 10	330	ME	[1965DAV/KYB, 1987STE/MAL]
	SUB		238.5 ± 10	298		[1965DAV/KYB]
	V		135.9 ± 0.8	298	CGC	[2006NIC/KWE]
	V	(344–459)	115.3	351	A, ME	[1987STE/MAL, 1965DAV/KYB]
$C_{22}H_{46}O_2$	[22513-81-1]	1,22-docosanediol				
	TRS		39.8	369.7		
	FUS		46.5	379.4	DSC	[1999OGA/NAK]
$C_{22}H_{46}O_4S_2$		(*L*)-rhamnosedioctyl dithioacetal				
	FUS		54.7	387.9	DSC	[1989VAN/VAN]
$C_{22}H_{46}S$	[7773-83-3]	1-docosanethiol				
	V	(437–680)	107.7	452	E	[1999DYK/SVO]
$C_{23}H_{15}ClO_3$	[3691-35-8]	2-[(4-chlorophenyl)phenylacetyl]-1*H*-indene-1,3(2*H*)-dione				
	FUS		34.54	416.5	DSC	[1990DON/DRE]
$C_{23}H_{15}F_{17}OS$	[246544-01-4]	2-(perfluoro-*n*-octyl)ethylthiomethyl biphenyl-4-yl ether				
	FUS		47.4	362.1	DTA	[1999DEG/GUI]
$C_{23}H_{15}F_{17}S$	[246543-98-6]	2-(perfluoro-*n*-octyl)ethylthiomethyl biphenyl-4-yl				
	FUS		58.3	353.2	DTA	[1999DEG/GUI]
$C_{23}H_{19}NO_2$	[1041479-15-5]	2-isopropylphenyl acridine-9-carboxylate				
	FUS		29.0	396	DSC	[2010KRZ/MAL]
$C_{23}H_{19}NO_2$	[1134294-42-0]	2,4,6-trimethylphenyl acridine-9-carboxylate				
	FUS		24.4	405	DSC	[2010KRZ/MAL]
$C_{23}H_{19}NO_4$	[1134099-90-3]	(*S*)-2-(2-nitro-1-phenylethyl)-1,2-diphenylpropane-1,3-dione				
	FUS		32.0	408.8	DSC	[2014GON/KUD]
$C_{23}H_{19}NO_4$	[697745-86-1]	(*R*, *S*)-2-(2-nitro-1-phenylethyl)-1,2-diphenylpropane-1,3-dione				
	FUS		38.3	432.9	DSC	[2014GON/KUD]
$C_{23}H_{21}F_3O$	[145698-52-8]	4-*n*-hexyloxy-4′-trifluoromethyldiphenyldiacetylene				
	FUS		33.98	394.8	DSC	[1993JUA/CHE]
$C_{23}H_{21}F_7N_4O_3$	[170729-80-3]	5-[[(2R,3S)-2-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethoxy]-3-(4-fluorophenyl)-4-morpholinyl]methyl]-1,2-dihydro-3*H*-1,2,4-triazol-3-one (Aprepitant)				
	FUS (I)		53.7	526.8	DSC	
	FUS (II)		52.4	526.2	DSC	[2008BRA/GEL]
$C_{23}H_{22}O_6$	[83-79-4]	[2R-(2*a*,6aα,12aα)]-1,2,12,12a-tetrahydro-8,9-dimethoxy-2-(1-methylethenyl)-[1]benzopyrano[3,4-b]fluoro[2,3-h][1]benzopyran-6(6a*H*)-one (Rotenone)				
	FUS		35.64	437.9	DSC	[1990DON/DRE]
$C_{23}H_{24}FN_3O_2S$	[127625-29-0]	2-[3-[4-(*p*-fluorophenyl)-1-piperazinyl]propyl]-2*H*-naphth[1,8-cd]isothiazole 1,1-dioxide (fananserin)				
	FUS (I)		25.6	366.3		
	FUS (II)		27.8	375.1		
	FUS (III)		29.4	374.8	DSC	[2001GIO/TER]
$C_{23}H_{24}N_6O_4$		2-[[4-[[(2-acetoxy)ethyl]butylamino]-2-methylphenyl]azo]-5-nitro-1,3-benzenedicarbonitrile				
	FUS			37.88	424.2	[1991BAU/WEB]
$C_{23}H_{24}O_6$	[170464-53-6]	Tris(ethoxycarbonyl)-9-fluorenylmethane				
	SUB		143.2	298	GS	[1995RAK/VER]
	V	(359–393)	107.5 ± 0.7		GS	[1995RAK/VER]
$C_{23}H_{25}BrN_6O_{10}$		*N*-[5-[bis[(2-acetyloxy)ethyl]amino]-2-[(2-bromo-4,6-dinitrophenyl)azo]-4-methoxyphenyl]acetamide				
	FUS			57.28	421.2	[1991BAU/WEB]
$C_{23}H_{25}F$	[154393-25-6]	1-adamantylfluorodiphenylmethane				
	SUB	(353–393)	125.9 ± 1.3	373	T	[1994SCH/BEC]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{23}H_{26}O_6$	[183212-67-1]	1,1,1-tris(ethoxycarbonyl)-2,2-diphenylethane				
	FUS		29.5	333.2		[1995RAK/VER]
	SUB		140.1	298	GS	[1995RAK/VER]
	V	(344–394)	109.3 ± 1.0		GS	[1995RAK/VER]
$C_{23}H_{27}C_{12}N_3O_2$	[129722-12-9]	7-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butoxy]-3,4-dihydro-2(1*H*)-quinoline (aripiprazole)				
	FUS (I)		38.36	422.1	DSC	
	FUS (II)		41.51	416.3	DSC	
	FUS (III)		39.97	412.4	DSC	
	FUS (IV)		40.76	408.1	DSC	[2009BRA/GEL]
$C_{23}H_{27}FN_4O_2$	[106266-06-2]	3-[2-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]ethyl]-6,7,8,9-tetrahydro-2-methyl-4*H*-pyrido[1,2-a]pyrimidin-4-one				
	FUS		43.94	442.38	DSC	[2014MEA/SVA]
$C_{23}H_{27}NO_3$	[126675-76-1]	2-(4-nitrophenyl)-1-[4-(*trans*-4-propylcyclohexyl)phenyl]ethanone				
	FUS		38.87	436.5	DSC	[2002SPA/DZI]
$C_{23}H_{27}NO_3S$	[313057-12-4]	4-(7-undecenyloxy)phenyl 5-cyano-2-thiophenecarboxylate				
	FUS		52.72	346.1	DSC	[2000WU/WAN]
$C_{23}H_{27}NO_6$	[836602-51-8]	Ethyl natrexone-3-O-carbonate				
	FUS		18.99	404.2	DSC	[2004PIL/HAM]
$C_{23}H_{28}ClN_3O_5S$	[10238-21-8]	5-chloro-*N*-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxybenzamide(glyburide)				
	FUS		41.89	450.2	DSC	[2015GAU/VAN]
	FUS		55.4	446.9	DSC	[2010MUR/PIK2]
	FUS		46.3	446.8	DSC	[2007BER/WAS, 2006WAS/HOL]
	FUS		53.35	450.2	DSC	[2000HAN/PAR]
$C_{23}H_{28}N_2O_5$		*N*,*N*-dimethyl naltrexone-3-O-carbamate				
	FUS		22.01	480.2	DSC	[2009VAD/BAN]
$C_{23}H_{30}O_3$	[128788-26-1]	3-[(1-oxopentyl)oxy]-estra-1,3,5(10)-trien-17-one				
	FUS		25	398	DSC	[1990YAN/EIR]
$C_{23}H_{30}O_4S$	[313057-16-8]	4-(7-undecenyloxy)phenyl 5-methoxy-2-thiophenecarboxylate				
	FUS		61.92	334.1	DSC	[2000WU/WAN]
$C_{23}H_{30}O_6$	[52-21-1]	Prednisoloneacetate				
	FUS		42.3	515	DSC	[1997CEN/MEL]
	FUS		38.67	511		[1994REG/CHM]
$C_{23}H_{30}O_6$	[50-04-4]	Cortisone acetate				
	FUS		38.43	509		[1994REG/CHM]
$C_{23}H_{31}NO$	[164667-96-3]	4-*n*-octyloxy-*N*-(3,5-dimethylbenzylidene)aniline				
	FUS		37.73	324.7	DSC	[1995MIY/NAK]
$C_{23}H_{31}NO_3$	[164667-97-4]	4-*n*-octyloxy-*N*-(3,5-dimethoxybenzylidene)aniline				
	FUS		35.3	316.3	DSC	[1995MIY/NAK]
$C_{23}H_{32}N_2O_2S$	[910-86-1]	*N*,*N*′-[4-(3-methylbutoxy)phenyl]thiourea				
	FUS		38.1	415.3	DSC	[2011LI/BOU]
$C_{23}H_{32}O_2$	[119-47-1]	3,3′-di-*tert*-butyl-5,5′-dimethyl-2,2-dihydroxydiphenylmethane				
	FUS		29.33	403.7	DTA	[1972INO/LIA]
$C_{23}H_{32}O_3$	[27811-56-9]	Estra-1,3,5(10)-triene-3-ol-17β pentanoate				
	FUS		29.45	420.7	DSC	[1986DEM/MAS]
$C_{23}H_{32}O_4$	[56-47-3]	Deoxycorticosterone acetate				
	FUS		29.66	430		[1994REG/CHM]
$C_{23}H_{32}O_6$	[50-03-3]	Hydrocortisone acetate				
	FUS		53.64	480	DSC	[1997CEN/MEL]
	FUS		36.95	496		[1994REG/CHM]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{23}H_{34}O_2$	[2566-90-7]	(*Z*,*Z*,*Z*,*Z*,*Z*,*Z*)-4,7,10,13,16,19-docosahexaeneoate				
	V		131.8 ± 0.2	298	CGC	[2007LIP/KAP]
$C_{23}H_{34}O_3$	[3410-54-6]	Testosterone butyrate				
	FUS		24.75	382		[1994REG/CHM]
$C_{23}H_{35}N_3O_8$	[53848-86-5]	Hexadecyl 2,4,6-trinitrobenzoate				
	TRS		18.6	349.3		
	FUS		29.54	393.3	DSC	[1974WAR/WIL]
$C_{23}H_{36}N_2O_2$	[98319-26-7]	(5α,17β)-*N*-(1,1-dimethylethyl)-3-oxo-4-azaandrost-1-ene-17-carboxamide(finasteride)				
	TRS (I)		4.1	503.2		
	FUS (I)		33.2	530.2		
	FUS (II)		32.8	530.2	DSC	[2000WEN/BAU]
	SUB	(463–488)	143.7		TGA	[1997ELD]
$C_{23}H_{37}BrN_2O_4$	[138317-09-6]	(4-nitrophenyl)-16-bromohexadecyl carbamate				
	FUS		62.62	382.9	DSC	[1993TIE/FRA]
$C_{23}H_{39}N_3O_3$	[6313-97-9]	1-hexadecyl-3-(4-nitrophenyl) urea				
	FUS		53.94	392.6	DSC	[1993TIE/FRA]
$C_{23}H_{40}$	[14752-75-1]	Heptadecylbenzene				
	V	(414–664)	98.5	429		[1999DYK/SVO]
$C_{23}H_{42}O_2$	[61012-47-3]	Methyl (*Z*,*Z*)-13,16-docosadienoate				
	V		127.9	298	CGC	[2007LIP/KAP]
$C_{23}H_{42}O_3$	[5420-17-7]	Tetrahydrofurfuryl oleate				
	V	(353–398)	98.7	368	A	[1987STE/MAL]
$C_{23}H_{44}$	[95115-76-7]	*trans*-2-heptyl-6-hexyldecalin				
	FUS		38.91	312.2		[1985VAR/BRI]
$C_{23}H_{44}$	[95115-79-0]	*trans*-2-pentyl-6-octyldecalin				
	FUS		43.51	314.2		[1985VAR/BRI]
$C_{23}H_{44}O_2$	[1120-34-9]	methyl erucate				
	V		125.6 ± 1.2	298	CGC	[2007LIP/KAP]
	V	(463–523)	123.8	298	GC	[1997KRO/VEL]
	V	(453–543)	93.5	498	GC	[1993HUS/SAR]
$C_{23}H_{44}O_4$	[17598-93-5]	(3-decanoyloxy-2-hydroxypropyl) decanoate				
	V	(536–565)	124.1	551	DSC	[2014DAM/MAT]
[Note: The CAS Registry Number of [53988-07-1] that the authors of [2014DAM/MAT] give is not consistent with the IUPAC chemical name in the paper.]						
$C_{23}H_{44}O_5$	[820-17-7]	1-aceto-3-stearin				
	FUS		41.69	319.9		[1996DOM/HEA, 1955WAR/VIC]
$C_{23}H_{45}NO_3$		2-lauryloxy-*N*,*N*-dibutylpropionamide				
	V	(443–458)	90.6	450	A	[1987STE/MAL]
$C_{23}H_{45}NO_3$	[914224-79-6]	*N*-(1-oxoheneicosyl)glycine				
	TRS + FUS		64.0	400.8	DSC	[2014RED/KRO]
$C_{23}H_{46}$	[55124-77-1]	9-cyclohexylheptadecane				
	V	(456–492)	83.9	471	A	[1987STE/MAL]
$C_{23}H_{46}$	[19781-73-8]	Hexadecylcyclohexane				
	V	(414–664)	97.6	429		[1999DYK/SVO]
$C_{23}H_{46}$	[18835-32-0]	1-tricosene				
	V	(409–652)	98.5	424		[1999DYK/SVO]
$C_{23}H_{46}$	[27519-02-4]	*Z*-9-tricosene (muscalure)				
	V		114.4 ± 1.0	298	CGC	[2013SPE/CHI]
$C_{23}H_{46}$	[35857-62-6]	*E*-9-tricosene				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		114.5 ± 1.0	298	CGC	[2013SPE/CHI]
$C_{23}H_{46}O$	[540-09-0]	12-tricosanone				
	FUS		78.03	342.2		[1993RUE/SAR]
$C_{23}H_{46}O_2$	[929-77-1]	Methyl docosanoate (methyl behenate)				
	FUS		83.5	327.2	DSC	[2004CHI/ZHA]
	FUS		82.3	327.2	Cryst	[1936KIN/GAR]
	V	(463–513)	126.0 ± 0.3	298	GC	[2006HAF/PAR]
	V	(467–558)	126.1 ± 2.5	298	CGC	[2004CHI/ZHA]
	V	(463-523)	126.1	298	GC	[1997KRO/VEL]
	V	(453–543)	81.0	498		[1993HUS/SAR]
	V	(467–539)	98.2	482	A	[1987STE/MAL, 1963ROS/SCH]
$C_{23}H_{46}O_2$	[2433-96-7]	Tricosanoic acid				
	TRS		2.5	349.9		
	FUS		75.0	352	DSC	[2007GBA/NEG]
$C_{23}H_{46}O_3$	[102542-57-4]	Decyl 3-decyloxypropionate				
	V	(453–523)	90.2	468	A	[1987STE/MAL]
$C_{23}H_{48}$	[55124-79-3]	9-hexylheptadecane				
	V	(450–486)	82.6	465	A	[1987STE/MAL]
$C_{23}H_{48}$	[1560-81-2]	2-methyldocosane				
	V	(495–652)	79.7	510	A	[1987STE/MAL]
$C_{23}H_{48}$	[25117-30-0]	4-methyldocosane				
	V	(493–643)	76.3	508	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{23}H_{48}$	[25163-52-4]	5-methyldocosane				
	V	(492–644)	75.6	507	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{23}H_{48}$	[638-67-5]	Tricosane				
	TRS		<0.3	310.5		
	TRS		19.6	312.4		
	TRS		<0.3	317.2		
	FUS		52.6	320.2	DSC	[2004MON/RAJ]
	TRS		23.06	313.9		
	FUS		50.86	320.9	DSC	[2001CHE/BOU]
	TRS		<0.3	310.5		
	TRS		19.6	312.4		
	TRS		<0.3	317.2		
	FUS		52.6	320.2		[1998ROB/MON, 2001CHE/BOU]
	TRS		21.50	313.5		
	FUS		52.25	320.8		[1991BAR/SCH]
	TRS		21.76	313.7		
	FUS		53.97	320.7	AC	[1990DOM/HEA, 1955SCH/BUS]
	SUB		U146.8 ± 10	298	B	[1991PIA/POM]
	V	(412–462)	93.5	427		[2006SAW/MOK]
	V	(434–539)	117	298	CGC	[2004CHI/HAN]
	V		118.7 ± 0.1	298	GS	[2001PUR/CHI]
	V		119.7 ± 2.3	298	CGC	[2000NIC/ORF]
	V		120.5 ± 2.0	298	CGC	[1991DIK/KAB]
	V	(370–416)	123 ± 1	393	TE	[1994PIA/FON]
	V	(370–490)	92	385	TE, ME, GS	[1991PIA/POM]
	V	(314–353)	110.4	329	A	[1987STE/MAL]
	V	(440–653)	94	455	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{23}H_{48}O_2$	[95491-58-0]	1,23-tricosanediol				
	TRS		41.8	366.3		
	FUS		46.5	380.7	DSC	[1999OGA/NAK]
$C_{23}H_{48}S$	[66375-01-7]	1-tricosanethiol				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(444–690)	110.1	459	E	[1999DYK/SVO]
$C_{24}F_{50}$	[1766-41-2]	Perfluorotetracosane				
	FUS		63.2	461.1	DSC	[2012HAS/DRA]
	FUS		56.0	461.7	DSC	[1999VIS/TER]
	TRS		14.0	217.5		
	FUS		63.2	461.7	DSC	[1994JIN/BOL]
	TRS		3.89	202.7		
	FUS		U 100.8	465.2	DSC	[1986STA]
	V		141.0 ± 1.7	298	CGC	[2012HAS/DRA]
$C_{24}H_8O_6$	[128-69-8]	3,4,9,10-perylenetetracarboxylic dianhydride				
	SUB	(653–793)	185.6 ± 0.5		TGA	[2013SHA/SHT]
$C_{24}H_{12}$	[191-07-1]	coronene				
	FUS		21.2	709	DSC	[2009TOR/CAM]
	FUS		19.2	710.5		[1991ACR, 1980SMI]
	SUB	(473–483)	126.6 ± 1.7	478	ME	[2009TOR/CAM]
	SUB	(473–483)	131.0 ± 1.7	298	ME	[2009TOR/CAM]
	SUB	(421–504)	133.1 ± 5.1	463	ME	[1998OJA/SUU]
	SUB	(313–453)	143.2	383	GS	[1995NAS/LEN]
	SUB	(427–510)	135.9	468	ME	[1987STE/MAL, 1974MUR/POL]
	SUB		128.4		ME	[1967WAK/INO]
	SUB	(433–513)	147	473		[1958HOY/PEP]
	SUB	(476–555)	143.2	407	ME	[1952INO/SHI]
	SUB		148.5	407	ME	[1951INO]
	V		148.0 ± 0.5	298	CGC	[2002CHI/WEB]
	V	(323–473)	104.2	398	GC	[2002LEI/CHA]
$C_{24}H_{12}$	[102234-01-5]	bis-benzo[3,4]cyclobuta[1,2-a:1′,2′-c]biphenylene ([4]phenylene)				
	SUB		131.0 ± 4.2			[2000BEC/FAU]
$C_{24}H_{12}O_2$	[3302-52-1]	3,4:9,10-dibenzpyrene-5,8-quinone				
	SUB		112.5 ± 5.4			[1956MAG, 1970COX/PIL]
$C_{24}H_{14}$	[192-65-4]	Dibenzo[*a*,*e*]pyrene				
	FUS		32.1	517.9	DSC	[2010KES/AUC]
	FUS		30.5	520.2	DSC	[1991ACR, 1973CAS/VEC]
	SUB	(414–506)	146.4	429	A	[1987STE/MAL]
	SUB	(434–526)	137.6	480	ME	[1967WAK/INO]
$C_{24}H_{14}$	[192-51-8]	Dibenzo[*fg*,*op*]naphthacene				
	SUB	(430–555)	147.4	445	A	[1987STE/MAL]
	SUB	(454–526)	146.9	490	ME	[1967WAK/INO]
(called 1,2,6,7-dibenzpyrene in paper, which we have taken to be dibenzo[*fo*,*op*]naphthacene based upon the melting point temperature reported in the paper)						
$C_{24}H_{14}$	[191-30-0]	Dibenzo[*a*,*l*]pyrene				
	FUS		24.68	501.2	DSC	[1991ACR, 1973CAS/VEC]
$C_{24}H_{14}$	[189-55-9]	Benzo[*rst*]pentaphene				
	FUS		27.87	556.8	DSC	[1991ACR, 1973CAS/VEC]
$C_{24}H_{14}$	[5385-75-1]	Dibenzo[*a*,*e*]fluoranthene				
	FUS		24.0	505.5	DSC	[2010KES/AUC]
$C_{24}H_{14}S_6$	[88493-55-4]	2,2′,5′,2″,5″,2‴,5‴,2⁗,5⁗,2⁗⁗-sexithiophene				
	SUB	(503–563)	207.1		ME	[1998KLO/LAU]
	SUB	(543–573)	211.3		ME	[1998KLO/LAU]
$C_{24}H_{15}Br_3$	[7511-49-1]	1,3,5-tris(4-bromophenyl)benzene				
	SUB		177 ± 3		ME	[2010GUT/HEC]
$C_{24}H_{16}$	[14620-98-5]	*trans*-heptacyclene				
	SUB		140.0 ± 3.1	433	ME	[2006SAN/BER]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		149.0 ± 3.1	298	ME	[2006SAN/BER]
$C_{24}H_{16}$	[15065-28-8]	*cis*-heptacyclene				
	SUB		120.2 ± 4.2	404	ME	[2006SAN/BER]
	SUB		126.5 ± 4.2	298	ME	[2006SAN/BER]
	SUB		129.3 ± 2.7	298	C	[2006SAN/BER]
$C_{24}H_{16}F_6N_2S_2$	[1448890-49-0]	1,4-bis[[[4-(trifluoromethyl)phenyl]methyl]thio]phthalazne				
	FUS		14.55	387.3	DSC	[2013JIM/PLA]
$C_{24}H_{16}N_2O_2$	[1806-34-4]	2,2′-(1,4-phenylene)bis(5-phenyl)oxazole				
	SUB		140	480	Optical	[1989SCH/PEN]
	SUB	(600–680)	94.4	615	A	[1987STE/MAL, 1975STE/SCH]
$C_{24}H_{18}$	[1165-14-6]	1,2,3-triphenylbenzene				
	SUB	(373–395)	131.7 ± 0.6	384	ME	[2010RIB/SAN2]
	SUB	(373–395)	134.1 ± 1.1	298	ME	[2010RIB/SAN2]
$C_{24}H_{18}$	[1165-53-3]	1,2,4-triphenylbenzene				
	SUB		147.8 ± 0.7	298	ME	[2011LIM/ROC]
$C_{24}H_{18}$	[612-71-5]	1,3,5-triphenylbenzene				
	FUS		32.6	445.2	DSC	[1997VER2]
	FUS		33.4	446		[1982LEB/BYK]
	SUB	(404–428)	143.5 ± 0.6	416	ME	[2011SAN/LIM]
	SUB	(404–428)	147.9 ± 1.1	298	ME	[2011SAN/LIM]
	SUB	(405–426)	144.0 ± 0.4	416	ME	[2011SAN/LIM]
	SUB	(405–426)	148.4 ± 1.0	298	ME	[2011SAN/LIM]
	SUB	(408–428)	145.0 ± 0.4	418	ME	[2011SAN/LIM]
	SUB	(408–428)	149.5 ± 1.0	298	ME	[2011SAN/LIM]
	SUB		146 ± 4		ME	[2010GUT/HEC]
	SUB	(407–429)	141.2 ± 0.7	418	ME	[2006RIB/MON]
	SUB	(407–429)	147.8 ± 0.7	298	ME	[2006RIB/MON]
	SUB		150.9	298	CGC–DSC	[1998CHI/HES]
	SUB	(364–388)	145.6 ± 0.9	376	T	[1997VER2]
	SUB		150.3 ± 0.9	298		[1997VER2]
	SUB		152 ± 0.3	298	C, ME	[1974MAL/BAR]
	SUB	(410–444)	142	425	ME	[1974MAL/BAR, 1987STE/MAL]
	SUB	(384–400)	142.2	422	ME	[1967WAK/INO]
	SUB		149.7 ± 4.1	298	ME	[1958HOY/PEP, 1970COX/PIL]
	V		133.4 ± 2.0	298	GCG	[2008HAN/NUT]
	V		140	298	CGC	[1998CHI/HES]
	V	(500–735)	77.5	515	A	[1987STE/MAL, 1962VOH/KAN]
	V	(454–500)	118	469	A	[1987STE/MAL, 1974MAL/BAR]
$C_{24}H_{18}$	[641-96-3]	*o*-quaterphenyl				
	FUS		27.2	390.6	DSC	[2013ROD/ROC]
$C_{24}H_{18}$	[1166-18-3]	*m*-quaterphenyl				
	FUS		27.7	360.0	DSC	[2013ROD/ROC]
$C_{24}H_{18}$	[135-70-6]	*p*-quaterphenyl				
	FUS		53.4	594.4	DSC	[2013ROD/ROC]
	TRS	(4–301)	0.41	233	AC	[1985SAI/ATA]
	FUS		57.6	586.7	DSC	[1982WAS/RAD]
	FUS		37.8	587.2	DSC	[1991ACR, 1979SMI2]
	V		136.1 ± 1.6	298	CGC	[2008HAN/NUT]
$C_{24}H_{18}F_6N_4$	[1448890-40-1]	N^1,N^4-bis[[4-(trifluoromethyl)phenyl]methyl]-1,4-phthalazinediamine				
	FUS		5.86	390.7	DSC	[2013JIM/PLA]
$C_{24}H_{18}N_2S_2$	[109538-04-7]	4,4′-bis(2-thienylmethylideamino)-*trans*-stilbene				
	TRS (liq cryst)		44.9	567.2		
	TRS (liq cryst-to-liq)		0.2	580.2	DTA	[1978KOS/BUD]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{24}H_{18}N_2S_2$	[109538-10-5]	1,2-bis[5-(β-azastyryl)-2-thienyl]-*trans*-ethylene				
	FUS		45.9	501.2	DTA	[1978KOS/BUD]
$C_{24}H_{18}N_6S_2$	[1448890-44-5]	Thiocyanic acid,*C*,*C*′-[1,4-phthalazinediylbis(iminomethylene-4,1-phenylene)] ester				
	FUS		20.77	494.9	DSC	[2013JIM/PLA]
$C_{24}H_{20}N_6O_3$	[139481-59-7]	2-ethoxy-1-[[2′-(2*H*-tetrazol-5-yl)[1,1′-biphenyl]-4-yl]methyl]-1*H*-benzimidazole-7-carboxylic acid (candesartan cilexetil)				
	FUS (I)		27.74	442	DSC	[2013CUI/YIN]
$C_{24}H_{20}O_6$	[614-33-5]	Glycerol tribenzoate				
	V	(423–476)	123.5	438	A, T	[1987STE/MAL, 1949FOR/NOR]
$C_{24}H_{21}NO_2$	[1041479-16-6]	2-*tert*-butylphenyl acridine-9-carboxylate				
	FUS		39.8	462	DSC	[2010KRZ/MAL]
$C_{24}H_{21}F_2NO_3$	[163222-33-1]	(3*R*,4*S*)-1-(4-fluorophenyl)-3-[(3*S*)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-(4-hydroxyphenyl)azetidin-2-one (ezetimibe)				
	FUS		38.24	435.2	DSC	[2015GAU/VAN]
	FUS		38.59	437.6	DSC	[2014SUG/KAI]
$C_{24}H_{22}N_2O_2S_2$	[1448890-47-8]	1,4-bis[[(4-methoxyphenyl)methyl]thio]phthalazine				
	FUS		30.4	403.4	DSC	[2013JIM/PLA]
$C_{24}H_{24}N_2O_4$	[111841-85-1]	4-(methoxymethyl)-6-(phenylmethoxy)-9*H*-pyrido[3,4-b]indole-3-carboxylic acid, 1-methylethyl ester				
	FUS		38.83	424		[1999WIN]
	FUS (I)		36.8			
	FUS (II)		34.8			
	FUS (III)		40.0		DSC	[1996BEC/OTT]
$C_{24}H_{24}N_4O_2$	[1448890-38-7]	N^1,N^4-bis[(4-methoxyphenyl)methyl]-1,4-phthalazinediamme				
	FUS		18.3	421.1	DSC	[2013JIM/PLA]
$C_{24}H_{24}O_4$	[89702-41-0]]	Syn4,9-bis(methoxycarbonyl)pagodane (dimethyl undecacyclo[9.9.0.0^{1,5}.0^{2,12}.0^{2,18}.0^{3,7}.0^{6,10}.0^{8,12}.0^{11,15}.0^{13,17}.0^{16,20}]-eicosane-4-syn, 9-syn-dicarboxylate)				
	SUB	(393–447)	146.1 ± 3.0	420	T	[1994BEC/RUE]
$C_{24}H_{24}O_4$	[124316-65-0]	1,6-bis(methoxycarbonyl)dodecahedrane (dimethylundecacyclo[9.9.0.0^{2,9}.0^{3,7}.0^{4,20}.0^{5,18}.0^{6,16}.0^{8,15}.0^{10,14}.0^{12,19}.0^{13,17}]-eicosane-1,6-dicarboxylate)				
	SUB	(395–450)	139.7 ± 1.3	422	T	[1994BEC/RUE]
$C_{24}H_{25}F_{25}$	[89109-71-7]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorotetracosane				
	TRS		14.6	351		
	FUS		23.2	361	DSC	[2008NUN/CLA]
	TRS		10.0	352.1		
	FUS		26.0	364.1	DSC	[1992HOP/MOL]
	TRS		11.3	353.2		
	FUS		24.5	362.2	DSC	[1986RUS/RAB]
$C_{24}H_{25}F_{25}$	[116177-49-2]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluoro-14-methyltricosane				
	TRS		9.0	220		
	FUS		25.0	347.1	DSC	[1992HOP/MOL]
$C_{24}H_{26}N_2O_2$	[14580-70-2]	1,5-dipiperidylanthraquinone				
	SUB	(408–458)	173.3	428		[1958HOY/PEP, 1987STE/MAL]
$C_{24}H_{26}N_2O_4$	[72956-09-3]	1-(9*H*-carbazol-4-yloxy)-3-[[2-(2-methoxyphenoxy)ethyl]amino-2-propanol (carvedilol)				
	FUS		57.6	387.3	DSC	[2007BER/WAS]
$C_{24}H_{27}NO_4$	[3088-05-9]	bis[*N*,*N*-(2-hydroxy-3-phenoxy)propyl]phenylamine				
	V	(388–423)	131	403	A	[1987STE/MAL]
$C_{24}H_{27}NO_5S$	[97322-87-7]	5-[[4[(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2*H*-1-benzopyran-2-yl)methoxy]phenyl]methyl-2,4-thiazolidinedione(troglitazone)				
	FUS		48.8	412.4	DSC	[2007BER/WAS]
$C_{24}H_{28}FN_3O$	[265667-22-9]	*N*-methyl-[1-[1-(2-fluorophenethyl)piperidin-4-yl]-1*H*-indol-6-yl]acetamide				
	FUS (I)		38.2	421.3		
	FUS (II)		35.2	413		[2002KUS/ASH]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{24}H_{29}NO_3$	[126675-77-2]	2-(4-nitrophenyl)-1-[4-(*trans*-4-butylcyclohexyl)phenyl]ethanone				
	FUS		36.4	426.9	DSC	[2002SPA/DZI]
$C_{24}H_{29}NO_3$	[120014-06-4]	(*RS*)-2-[(1-benzyl-4-piperidyl)methyl]-5,6-dimethoxy-2,3-dihydroinden-1-one (donepezil)				
	FUS (I)		27.1	366.4	DSC	
	FUS (II)		29.4	369.6	DSC	
	FUS (III)		32.0	365.4	DSC	
	FUS (IV)		33.2	371.4	DSC	[2013PAR/LEE]
$C_{24}H_{29}NO_6$	[836602-52-9]	Propyl naltrexone-3-O-carbonate				
	FUS		20.97	379.2	DSC	[2004PIL/HAM]
$C_{24}H_{29}NO_6$	[836602-53-0]	Isopropyl naltrexone-3-O-carbonate				
	FUS		26.62	427.2	DSC	[2004PIL/HAM]
$C_{24}H_{29}N_5O_3$	[137862-53-4]	*N*-(1-oxopentyl)-*N*-[[2′-(2*H*-tetrazol-5-yl)[1,1′-biphenyl]-4-yl]methyl]-L-valine (valsartan)				
	FUS		26.13	385.2	DSC	[2008CAS/MAL]
$C_{24}H_{30}$	[59358-71-3]	1,1-diphenyl-1,1′-bicyclohexyl				
	FUS		29.71	455	DSC	[1983KRA/BEC]
	SUB		150.2		E, B	[1983KRA/BEC]
$C_{24}H_{30}N_2O_2S$		*N*,*N*′-bis[4-(1,1-dimethylethyl)benzoyl]carbamimidothioic acid, methyl ester				
	FUS		11.51	415.4	DSC	[2009PLA/LIZ]
$C_{24}H_{30}O_3$	[67392-87-4]	Drospirenone				
	FUS		22.1	472.6	DSC	[2015NUR/BOO]
$C_{24}H_{30}O_4$	[140-24-9]	Dibenzyl sebacate				
	V	(368–550)	114.3	383	A	[1987STE/MAL]
	V	(405–463)	112.2	420	T	[1949PER/WEB]
	V	(373–432)	121	388	T	[1939VER/MAR]
$C_{24}H_{30}O_4$	[167321-36-0]	2,2′-diphenyl-bi-(5,5-dimethyl-1,3-dioxan-2-yl)				
	SUB	(372–420)	130.2 ± 1.8	396	T	[1995VER/DOG]
$C_{24}H_{31}FO_6$	[76-25-5]	Triamcinoloneacetonide				
	FUS		45.29	566		[1994REG/CHM]
$C_{24}H_{31}FO_6$	[1177-87-3]	Dexamethasome acetate				
	FUS		37.72	503		[1994REG/CHM]
$C_{24}H_{32}$	[4384-23-0]	[6.6]-para-cyclophane				
	SUB	(352–371)	108.8 ± 0.8	362		[1969SHI/MCN, 1977PED/RYL]
	SUB	(352–371)	115.1 ± 2.1	298		[1969SHI/MCN, 1977PED/RYL]
$C_{24}H_{32}$	[115181-13-0]	8-[4-(4′-*n*-butylbiphenyl)]-1-octene				
	TRS (liq cryst)		2.2	248.6		
	TRS (liq cryst-to-liq)		9.6	315.6	DSC	[1989MAL/KAN]
$C_{24}H_{32}O_3$	[63058-78-6]	3-[(1-oxohexyl)oxy]-estra-1,3,5(10)-trien-17-one				
	FUS		23.0	370	DSC	[1990YAN/EIR]
$C_{24}H_{32}O_4$	[167321-36-0]	2,2′-diphenyl-bi(5,5-dimethyl-1,3-dioxan-2-yl)				
	FUS		49.8	507.1		[1995VER/DOG]
$C_{24}H_{32}O_4S$	[52-01-7]	17-hydroxy-7α-mercapto-3-oxo-17α-pregn-4-ene-21-carboxylic acid, γ-lactone,acetate(spironolactone)				
	FUS (II)		20.77	481.6	DSC	[2014ZHA/WAN]
	FUS (II)		22.9	480	DSC	[2007ESP/NIC]
	FUS (I)		20	478		
	FUS (II)		22.1	483		[1991AGA/LEG]
$C_{24}H_{32}O_8$	[14174-09-5]	Dibenzo[24-crown-8]				
	FUS		53.7	373.9	DSC	[2016SAN/CRU]
	FUS (82 % Crys)	(10–500)	51.3	375.5	DSC	[2004BYK/LEB]
	FUS (100 % Crys)		62.5		DSC	[2002LEB/BYK, 2004BYK/LEB]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		16.6	354.1		
	FUS		52.25	375.4		[1998DOM, 1985RAE/SOL]
	SUB		232.9 ± 3.6	298	V + F	[2016SAN/CRU]
	V	(545–595)	112.0 ± 0.2	570	TGA	[2016SAN/CRU]
	V	(545–595)	190.4 ± 0.2	298	TGA	[2016SAN/CRU]
$C_{24}H_{33}F_{17}O$	[699008-59-8]	1-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]tetradecane				
	FUS		45.12	300.3	DSC	[2010ZAG/CON]
$C_{24}H_{34}$	[1603-53-8]	1,1-diphenyldodecane				
	TRS		1.92	191		
	FUS		38.83	281.4		[1996DOM/HEA, 1960KAR/STR]
$C_{24}H_{34}N_4O_5S$	[93479-97-1]	3-ethyl-2,5-dihydro-4-methyl-*N*-[2-[4-[[[[*trans*-4-methylcyclohexyl)amino] carbonyl] amino] sulfonyl]phenyl] ethyl-2-oxo-1*H*-pyrrole-1-carboxami(glimepiride)				
	FUS		53.3	485.7	DSC	[2007BER/WAS]
$C_{24}H_{36}O_3$	[3129-43-9]	Testosteronevalerate				
	FUS		24.57	380		[1994REG/CHM]
$C_{24}H_{36}O_5$	[75330-75-5]	2-methylbutanoicacid, (1S,3R,7S,8S,8aR)-1,2,3,7,8,8*a*-hexahydro-3,7-dimethyl-8-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl]ethyl]-1-naphthalenyl ester (lovastatin)				
	FUS		36.53	444.3	DSC	[2008TUN/TAB]
	FUS		43.14	445.5	DSC	[2008NTI/CHM]
	FUS		43.1	445.2	DSC	[2007SOU/CON]
$C_{24}H_{37}N_3O$	[218765-43-6]	Pyrimethanil laurate				
	FUS	(78–340)	67.24	321.5	AC	[2004SUN/LIU]
$C_{24}H_{38}O_4$	[117-81-7]	bis(2-ethylhexyl)phthalate				
	V		116.9 ± 3.8	298	CRT	[2015GOB/CHI]
	V		122.8 ± 3.3	298	CGC	[2015GOB/CHI]
	V		115.9 ± 3.8	298	CGC	[2014GOB/CHI]
	V	(373–660)	102.5	388	A	[1987STE/MAL]
	V	(393–503)	107.6	408		[1952WER]
	V	(385–440)	110.7	390	T	[1949PER/WEB]
$C_{24}H_{38}O_4$	[6422-86-2]	bis(2-ethylhexyl)terephthalate				
	V		123.2 ± 1.1	298	CGC	[2014GOB/CHI]
$C_{24}H_{38}O_4$	[131-15-7]	bis(1-methylheptyl)phthalate				
	V	(393–435)	93.1	408	A	[1987STE/MAL, 1952WER]
$C_{24}H_{38}O_4$	[131-20-4]	bis(6-methylheptyl)phthalate				
	V	(383–490)	92.4	398	A	[1987STE/MAL, 1952WER]
$C_{24}H_{38}O_4$	[117-84-0]	Dioctyl phthalate				
	V		122.7 ± 3.2	298	CRT	[2015GOB/CHI]
	V		131.6 ± 5.7	298	CGC	[2015GOB/CHI]
	V		122.6 ± 1.4	298	CGC	[2014GOB/CHI]
	V	(423–523)	99.5	438	A	[1987STE/MAL]
	V	(383–433)	107.6	398	T	[1949PER/WEB]
$C_{24}H_{40}$	[62155-50-4]	1-cyclohexyl-1-phenyldodecane				
	FUS		35.19	275.8		[1996DOM/HEA, 1960KAR/STR]
$C_{24}H_{40}N_8O_4$	[58-32-2]	2,2′,2″,2‴-[(4,8-di-1-piperidinylpyrimido[5,4-d]pyrimidine-2,6-diyl)-dinitrilo]-*tetrakis*-ethanol (dipyridamole)				
	FUS (I)		44.05	442.8		
	FUS (II)		33.2	441.9	DSC	[2006ADH/BAS]
	FUS		28	438.9	DSC	[2002BER/MAR]
$C_{24}H_{40}O_3$		5-(1,1-dimethylheptyl)-2-[(1R,2R,5R)-5-hydroxy-2-(3-hydroxypropyl)cyclohexyl]phenol				
	FUS		18.4	357		[2004VAL/KIP]
$C_{24}H_{40}O_4$	[175848-64-3]	2,5-di-*n*-nonyloxy-1,4-benzoquinone				
	TRS		8.0	352.6		
	TRS		24.2	383.8		

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		47.1	402.7	DSC	[1996KEE/VAN]
$C_{24}H_{41}F_9O$	[1240205-69-9]	1-[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]octadecane				
	FUS		28.56	291.7	DSC	[2010ZAG/CON]
$C_{24}H_{42}$	[2456-68-0]	Hexapropylbenzene				
	V	(458–606)	68.4	473	A	[1987STE/MAL, 1937GRO/IPA]
$C_{24}H_{42}$	[4445-07-2]	Octadecylbenzene				
	V	(423–675)	101	438		[1999DYK/SVO]
$C_{24}H_{42}O_6$	[64617-30-7]	*trans* trihexyl aconitate				
	V	(423–512)	98.2	438	A	[1987STE/MAL, 1953MAG/MOD]
$C_{24}H_{42}O_{11}$		Di[1-(2-ethylbutyloxycarbonyl)ethyl] diethylene glycol dicarboxylate				
	V	(448–538)	110.1	463	A	[1987STE/MAL]
$C_{24}H_{42}O_{11}$		Di[1-(2-hexyloxycarbonyl)ethyl] diethylene glycol dicarboxylate				
	V	(443–548)	111	458	A	[1987STE/MAL]
$C_{24}H_{44}$		9-decyltetradecahydroanthracene				
	V	(501–536)	103.2	516	A	[1987STE/MAL]
$C_{24}H_{44}$		9-decyltetradecahydrophenanthrene				
	V	(502–542)	92.0	517	A	[1987STE/MAL]
$C_{24}H_{44}O_2$	[31067-27-3]	3,3,7,7,11,11,15,15-octamethylcyclohexadecane-1,9-dione				
	FUS		34.3	423.2		[1972BOR/DAL2]
$C_{24}H_{44}O_4$	[38734-14-4]	1,11-cycloeicosanedione bis ethylene ketal				
	FUS		43.72	362.2		[1972ALV/BOR]
$C_{24}H_{44}O_6$	[140-04-5]	O-acetylricinoleic acid, butyl ester				
	V	(378–423)	105.2	393	A	[1987STE/MAL]
$C_{24}H_{44}O_6$	[38094-13-2]	Trihexyl 1,2,3-propanetricarboxylate				
	V	(422–526)	98.1	437	A	[1987STE/MAL]
$C_{24}H_{44}O_6$	[620-67-7]	Glyceroltriheptanoate				
	V	(401–452)	84.4	416		[2001BUR/JOS]
$C_{24}H_{46}$	[18254-57-4]	1,1-dicyclohexyldodecane				
	FUS		44.35	300.6		[1996DOM/HEA, 1960KAR/STR]
$C_{24}H_{46}$	[95746-44-4]	2,11-dicyclohexyldodecane				
	FUS		43.93	300.6		[1996DOM/HEA, 1960KAR/STR]
$C_{24}H_{46}$	[95115-77-8]	*trans*-2,6-diheptyldecalin				
	FUS		40.17	326.7		[1985VAR/BRI]
$C_{24}H_{46}O_2$	[506-37-6]	(15Z)-tetracosenoic acid				
	FUS		60.3	315	DSC	[2015WIL/GOB]
	SUB		228.9 ± 2.4	298	V + F	[2015WIL/GOB]
	V		170.6 ± 2.3	298	CGC	[2015WIL/GOB]
$C_{24}H_{46}O_4$	[20270-50-2]	bis(3,5,5-trimethylhexyl)adipate				
	V	(353–413)	107.6	368	A, ME	[1987STE/MAL, 1948SMA/SMA]
$C_{24}H_{47}NO_3$	[14246-59-4]	*N*-(1-oxododecyl)glycine				
	TRS + FUS		71.0	402.2	DSC	[2014RED/KRO]
$C_{24}H_{47}NO_3$	[1213779-59-9]	Undecanoic acid, 2-[(1-oxoundecyl)amino]ethyl ester				
	FUS		53.6	340.1	DSC	[2010KAM/TAR]
$C_{24}H_{48}$	[4445-06-1]	Octadecylcyclohexane				
	V	(422–675)	100.3	437		[1999DYK/SVO]
$C_{24}H_{48}$	[10192-32-2]	1-tetracosene				
	V	(418–663)	101	433		[1999DYK/SVO]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{24}H_{48}$	[297-03-0]	Cyclotetracosane				
	TRS		38.0	297		
	FUS		10.8	322	DSC	[1987DRO/MOL, 1987DRO/EME]
$C_{24}H_{48}O_2$	[5908-87-2]	Ethyldocosanoate				
	FUS		77.82	321		[1967OMA]
	TRS		26.0	312.3		
	FUS		52.0	321		[1996DOM/HEA, 1934KIN/GAR]
	SUB	(313–318)	196.5	315.5	ME	[1987STE/MAL, 1967OMA]
	V	(327–344)	127.5	335	A, ME	[1987STE/MAL, 1967BER/WES]
$C_{24}H_{48}O_2$	[2433-97-8]	Methyl tricosanoate				
	V	(473–528)	99.8	488	A, E	[1987STE/MAL, 1963ROS/SCH]
$C_{24}H_{48}O_2$	[557-59-5]	Tetracosanoicacid				
	TRS		4.94	351		
	FUS		84.5	356.5	DSC	[2015WIL/GOB]
	SUB		253.0 ± 3.2	298	V+ F	[2015WIL/GOB]
	V		170.7 ± 2.3	298	CGC	[2015WIL/GOB]
$C_{24}H_{49}CI$	[6422-18-0]	1-chlorotetracosane				
	V	(543–774)	72.4	558	A	[1987STE/MAL, 1970DYK/VAN]
$C_{24}H_{50}$	[1928-30-9]	2-methyltricosane				
	V	(450–664)	89.3	465	A	[1987STE/MAL]
$C_{24}H_{50}$	[22331-09-5]	5-methyltricosane				
	V	(503–653)	79.6	518	A	[1987STE/MAL, 1999DYK/SVO, 1959TER/BRI]
$C_{24}H_{50}$	[646-31-1]	Tetracosane				
	TRS		27.4	321.5		
	FUS		49.6	324.2	DSC	[2016BOU/HAF]
	TRS		31.18	320.4		
	FUS		55.51	324.5	DSC	[2013BEN/KHI, 2012BEN/KHI]
	TRS		33.18	321		
	FUS		59.31	324.1	DSC	[2007HAF/MAH]
	TRS		30.3	319		
	TRS		<0.3	319.6		
	FUS		53.8	323.4	DSC	[2004MON/RAJ]
	TRS		33.6	322.6		
	FUS		52.0	324.4	DSC	[1999GIL]
	TRS		27.68	318.9		
	FUS		57.31	323.65	DSC	[1991DOM/WYR]
	TRS		29.16	321.0		
	FUS		54.4	323.8		[1991CLA/LET]
	TRS		31.5	321.1		
	FUS		54.0	323.5		[1991BAR/SCH]
	TRS		31.3	321.4		
	FUS		54.7	323.9		[1973COM]
	TRS + FUS		86.8	322.9		[1969ATK/RIC]
	TRS		31.3	321.3		
	FUS		54.89	324.1	AC	[1996DOM/HEA, 1955SCH/BUS]
	TRS + FUS		85.8	323.5		[1948MAZ]
	SUB	(308–323)	164.9 ± 1.8	315		[2009RAZ/NAC]
	SUB		162 ± 12	298	B	[1991PIA/POM]
	V		116.1 ± 3.1	298	CRT	[2015GOB/CHI]
	V		121.5 ± 2.9	298	CGC	[2015GOB/CHI]
	V	(333–373)	105.1 ± 0.5	353		[2009RAZ/NAC]
	V	(334–452)	112	349	GC	[2007LEE/LAI]
	V	(434–539)	121.9	298	CGC	[2004CHI/HAN]
	V		126.8 ± 0.4	298	CGC	[2002CHI/WEB]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		125.7 ± 1.6	298	CGC	[2000NIC/ORF]
	V		126.2 ± 2.3	298	CGC	[1997CHI/WIL]
	V	(453–588)	92.6	468		[1994MOR/KOB]
	V	(386–425)	126 ± 2	405	TE	[1994PIA/FON]
	V	(382–523)	95.2	397	TE, ME, GS	[1991PIA/POM]
	V	(451–497)	86.2 ± 4.6	474	GS	[1990PIA/SCA]
	V	(373–463)	111.2	388		[1988SAS/JOS]
	V	(498–573)	86.6	513	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{24}H_{50}$	[22331-52-8]	12-methyltricosane				
	V	(435–454)	84.5	445	GC	[1982REC/GRE, 1999DYK/SVO]
$C_{24}H_{50}O$	[4542-57-8]	13-oxapentacosane				
	TRS		4.6	303.8		
	FUS		92.88	304.62	DSC	[2004TYA/BIS]
$C_{24}H_{50}O_2$	[2136-74-5]	2-(docosanoxy)ethanol				
	TRS		12.92	317.2		
	FUS		43.93	335.9	DTA	[1979KUC/SKU]
$C_{24}H_{50}O_2$	[22513-82-2]	1,24-tetracosanediol				
	TRS		42.7	372.7		
	FUS		51.2	381.5	DSC	[1999OGA/NAK]
$C_{24}H_{50}O_4S_2$		(*l*)-rhamnose dinonyl dithioacetal				
	TRS		24.7	342.1		
	FUS		54.4	387.4	DSC	[1989VAN/VAN]
$C_{24}H_{50}S$	[16331-24-1]	1-tetracosanethiol				
	V	(451–700)	112.2	466	E	[1999DYK/SVO]
$C_{24}H_{51}N$	[1116-76-3]	Trioctylamine				
	V		100.1 ± 1.4	298	CGC	[2014GOB/VIK]
	V	(415–536)	110.4 ± 15.0	298	EB	[1996STE/CHI3]
	V	(505–702)	70.6	520	A	[1987STE/MAL]
$C_{24}H_{51}O_4P$	[78-42-2]	tris(2-ethylhexyl)phosphate				
	V	(383–413)	106.0	398	GC-RT	[2014BRO/JAN]
$C_{25}H_{20}$	[630-76-2]	Tetraphenylmethane				
	FUS		48.28	554.2	DSC	[1999VER3]
	SUB	(363–388)	140.0 ± 1.3	298	GS	[1999VER3]
	SUB	(363–383)	135.4 ± 1.3	376	GS	[1999VER3]
	SUB	(396–466)	150.6 ± 4	298	TE, ME	[1972KAN, 1977PED/RYL]
	SUB	(404–466)	143.3	419		[1987STE/MAL, 1972KAN]
$C_{25}H_{22}O_{10}$	[22888-70-6]	2-[(2R,3R)-2,3-dihydro-3-(4-hydroxy-3-methoxyphenyl)-2-(hydroxymethyl)-1,4-benzodioxin-6-yl]-2,3-dihydro-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one (silybin)				
	FUS		44.87	424	DSC	[2005ZHA/BAI, 2006BAI/YAN, 2005YAO/BAI]
$C_{25}H_{26}$	[55334-57-1]	3-phenylethyl-1,5-diphenyl-2-pentene				
	V	(469–541)	86.8	484		[1999DYK/SVO]
$C_{25}H_{28}$	[66374-88-7]	3-phenylethyl-1,5-diphenylpentane				
	V	(498–542)	87.3	513	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{28}N_6O$	[138402-11-6]	Irbesartan				
	SUB (α)	(403–421)	197.2 ± 20		ME	[2009TAU/SIT]
	SUB (β)	(403–421)	254.5 ± 20		ME	[2009TAU/SIT]
$C_{25}H_{28}O_3$	[50-50-0]	Estra-1,3,5(10)-triene-3,17-diol(17P), 3-benzoate				
	FUS		41.75	464.1		[1985DEM/CHA]
$C_{25}H_{31}FO_8$	[67-78-7]	Triamcinolone diacetate				
	FUS		38.31	508		[1994REG/CHM]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{25}H_{31}NO_3$	[483362-62-5]	2-(4-nitrophenyl)-1-[4-[2-(*trans*-4-propylcyclohexyl)ethyl]phenyl] ethanone				
	FUS		35.56	420	DSC	[2002SPA/DZI]
$C_{25}H_{31}NO_3$	[126675-78-3]	2-(4-nitrophenyl)-1-[4-(*trans*-4-pentylcyclohexyl)phenyl]ethanone				
	FUS		34.48	415.8	DSC	[2002SPA/DZI]
$C_{25}H_{32}N_2O_5$		*N*,*N*-diethyl naltrexone-3-O-carbamate				
	FUS		21.56	419.7	DSC	[2009VAD/BAN]
$C_{25}H_{32}O_2$	[76208-41-8]	17-phenyl testosterone				
	TRS		23.3	388.5		
	FUS		44.2	450	DSC	[1997CEN/MEL]
$C_{25}H_{34}O_3$	[65445-09-2]	19-nor-17α-ethynyl-17β-(2,2-dimethylpropionoxy-4-androsten-3-one				
	FUS		37.8	500	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{25}H_{34}O_3$	[2985-59-3]	2-hydroxy-4-dodecyloxybenzophenone				
	V	(413-453)	115.5	433	ME	[1984SUR]
$C_{25}H_{34}O_3$	[118924-66-6]	3-[(1-oxoheptyl)oxy]-estra-1,3,5(10)-trien- 17-one				
	FUS		21.0	338	DSC	[1990YAN/EIR]
$C_{25}H_{34}O_6$	[51333-22-3]	16α,17α-(butylidenedioxy)-11 β,21-dihydroxypregna-1,4-diene-3,20-dione (budesonide)				
	FUS		34.7	534	DSC	[2009MOT/CAR]
$C_{25}H_{34}O_8$	[2203-97-6]	Hydrocortisone hemisuccinate				
	FUS		41.34	444	DSC	[1997CEN/MEL]
$C_{25}H_{34}O_8P_2$	[60699-49-2]	2,2′-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[5,5-dimethyl-1,3,2-dioxaphosphorinane]-2,2′-dioxide				
	FUS		39.82	469.0	DSC	[2014JIA/WAN3]
$C_{25}H_{36}$	[7225-70-9]	1-phenyl-3-phenethylundecane				
	V	(456–521)	91.9	471	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{36}O_2$	[119-47-1]	2,2′-methylenebis(6-*tert*-butyl-4-methylphenol)				
	SUB	(383–403)	114	393	GS	[1971FEL/KUZ]
$C_{25}H_{38}$	[55191-63-4]	1-pentadecylnaphthalene				
	V	(474–524)	98.1	489	A	[1987STE/MAL]
	V	(474–540)	96.7	489	A	[1987STE/MAL]
$C_{25}H_{38}O_5$	[79902-63-9]	2,2-dimethylbutanoic acid, (1S,3R,7S,8S,8aR)-1,2,3,7,8,8*a*-hexahydro-3,7-dimethyl-8-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl]ethyl]-1-naphthalenyl ester (simvastatin)				
	FUS		30.13	415.1	DSC	[2015YAN/YIN]
	FUS		30.0	412.3	DSC	[2015NUR/BOO]
	FUS		28.4	413.3	DSC	[2014SIM/DIO]
	FUS	(293–423)	30.4	414.1	DSC	[2013SIM/BER]
	FUS		24.5	410.9	DSC	[2011ACE/HIN]
	FUS		28.3	411.7		[2010OLI/YOS]
	FUS		29.55	412.5	DSC	[2009SHA/DEN]
	FUS		32.17	412.6	DSC	[2009NTI/CHA]
	FUS		28.6	412.3		[2008GRA/STR]
	FUS		29.59	413.8	DSC	[2008TUN/TAB]
	FUS		31.8	415.2	DSC	[2007SOU/CON]
	FUS		32.6	412.7		[2007JUN/KIM]
	FUS		22.4	410		[2006ISM]
$C_{25}H_{39}N_3O_8$	[53848-85-4]	Octadecyl 2,4,6-trinitrobenzoate				
	TRS		25.4	364.1		
	FUS		30.0	392.3	DSC	[1974WAR/WIL]
$C_{25}H_{40}$	[55334-30-0]	1-cyclohexyl-6-cyclopentyl-3-phenethylhexane				
	V	(486–525)	87.7	501	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{40}$	[55334-31-1]	1,7-dicyclopentyl-4-(2-phenethyl)heptane				
	V	(487–525)	92.0	502	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]
$C_{25}H_{42}$	[334-29-2]	1-hexadecylindane				
	V	(495–536)	87.0	510	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{25}H_{42}$	[66374-91-2]	5-pentadecyl-1,2,3,4-tetrahydronaphthalene				
	V	(471–534)	99.4	486	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{44}$	[29136-19-4]	Nonadecylbenzene				
	V	(431–686)	103.6	446		[1999DYK/SVO]
$C_{25}H_{44}$	[66374-92-3]	1,5-dicyclohexyl-3-(2-cyclohexylethyl)-2-pentene				
	V	(485–524)	88.0	500	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{44}$	[66374-93-4]	1,7-dicyclopentyl-4-(3-cyclopentylpropyl)-3-heptene				
	V	(483–522)	89.0	498	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{44}$	[5637-96-7]	3-octyl-1-phenylundecane				
	V	(476–513)	89.4	491	A	[1987STE/MAL]
$C_{25}H_{44}$	[5637-96-7]	9-(2-phenylethyl)heptadecane				
	V	(448–513)	88.3	463	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{44}$	[4445-08-3]	9-(4-tolyl)octadecane				
	V	(472–507)	92.0	487	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]
$C_{25}H_{44}$	[7225-65-2]	6-octyl(hexylhydrobenz[*de*]anthracene)				
	V	(467–534)	93.8	482		[1999DYK/SVO]
$C_{25}H_{44}O_8$	[15834-04-5]	pentaerythritol tetrapentanoate				
	V	(334–413)	120.8	350		[2007RAZ/MOK]
$C_{25}H_{46}$	[55401-70-2]	1-cyclohexyl-3-(cyclohexylethyl)-6-cyclopentylhexane				
	V	(487–524)	91.4	502	A	[1987STE/MAL]
$C_{25}H_{46}$	[55401-72-4]	4-(2-cyclohexylethyl)-1,7-dicyclopentylheptane				
	V	(471–524)	88.8	486	A	[1987STE/MAL]
$C_{25}H_{46}$	[2090-16-6]	1,5-dicyclohexyl-3-(2-cyclohexylethyl)pentane				
	V	(318–418)	107.6	333	A	[1987STE/MAL, 1964MOR]
	V	(488–528)	86.2	503	A	[1987STE/MAL]
$C_{25}H_{46}$	[55429-35-1]	1,7-dicyclopentyl-4-(3-cyclopentylpropyl)heptane				
	V	(457–525)	87.6	472	A	[1987STE/MAL]
	V	(486–525)	88.9	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{46}O_6$	[33599-07-4]	1,2-diaceto-3-stearin				
	FUS		45.56	208.3		[1996DOM/HEA, 1955WAR/VIC]
$C_{25}H_{48}$	[7225-69-6]	1-cyclohexyl-3-(2-cyclohexylethyl)undecane				
	V	(480–516)	95.2	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}$	[7225-68-5]	1-cyclopentyl-4-(3-cyclopentylpropyl)dodecane				
	V	(480–518)	88.5	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}$	[55401-73-5]	1-hexyldecylhexahydroindane				
	V	(492–532)	87.6	507	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}$	[66359-82-8]	1-pentadecyldecahydronaphthalene				
	V	(464–529)	93.4	479	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{48}N_2O_2S$	[1383124-08-0]	1,3-didodecanoyl thiourea				
	FUS		50.5	315.7	DSC	[2011ALK/TEK]
$C_{25}H_{48}N_6O_8$	[70-51-9]	*N*′-[5-[[4-[[5-(acetylhydroxyamino)pentyl]amino]-1,4-dioxobutyl]-hydroxyammo]pentyl]-*N*-(5-aminopentyl)-*N*-hydroxybutanediamide (deferoxamine)				
	FUS		105.3	411.1	DSC	[2000IHN/VEN]
$C_{25}H_{48}O_2$	[2733-88-2]	Methyl *Z* 15-tetracosenoate				
	V		135.3 ± 1.1	298	CGC	[2007LIP/KAP]
$C_{25}H_{48}O_4$	[2064-80-4]	Dioctyl nonanedioate				
	V	(393–523)	104.3	408	A	[1987STE/MAL]
$C_{25}H_{48}O_{48}P_4$	[75607-57-7]	Tetra(3,5-dimethyl-1,3-dioxaphosphorinanyl-2-oxy)neopentane				
	FUS		48.4	466.1	DSC	[2014JIA/WAN]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{25}H_{50}$	[22349-03-7]	Nonadecylcyclohexane				
	FUS		79.9	315.7	DSC	[2001YOU/SCH]
	FUS		78.8	313.2	DSC	[2000YOU/DOL]
	FUS		77.79	316.2	DSC	[2000SIR/HER]
	V	(430–686)	102.8	445		[1999DYK/SVO]
$C_{25}H_{50}$	[16980-85-1]	1-pentacosene				
	V	(426–674)	103.7	441		[1999DYK/SVO]
$C_{25}H_{50}$	[25446-35-9]	9-(2-cyclohexylethyl)heptadecane				
	V	(490–513)	88.6	495	A	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{50}$	[5638-09-5]	9-(3-cyclopentylpropyl)heptadecane				
	V	(476–514)	86.9	491	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{50}$	[24306-18-1]	9-octyl-8-heptadecene				
	V	(441–500)	92.3	456	A	[1987STE/MAL, 1999DYK/SVO]
$C_{25}H_{50}O$	[2123-19-5]	13-pentacosanone				
	FUS		96.17	347	DSC	[2000NAK/SHI]
$C_{25}H_{50}O_2$	[2442-49-1]	Methyl tetracosanoate				
	FUS		90.0	331.2	DSC	[2004CHI/ZHA]
	V	(467–558)	136.6 ± 2.5		CGC	[2004CHI/ZHA]
	V	(422–452)	146.2	437		[2001BUR/JOS]
	V	(483–536)	100.8	498	A	[1987STE/MAL]
$C_{25}H_{50}O_2$	[18281-07-7]	Ethyl tricosanoate				
	FUS		57.32	326		[1967OMA]
	SUB	(316–322)	175.2	319	ME	[1987STE/MAL, 1967OMA]
	V	(336–359)	121.8	347	A, ME	[1987STE/MAL, 1967BER/WES]
$C_{25}H_{50}O_3$	[6627-45-8]	Didodecyl carbonate				
	FUS		50.35	295.5	DSC	[2012KEN]
	FUS		79.7	290.5	DSC	[2010KEN]
$C_{25}H_{52}$	[7225-64-1]	9-octylheptadecane				
	V	(470–505)	93.4	485	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{25}H_{52}$	[629-99-2]	Pentacosane				
	TRS		27.3	318.8		
	FUS		51.2	327.1	DSC	[2016BOU/HAF]
	TRS		23.9	309		
	TRS		1.07	312.9		
	FUS		55.53	325.9	DSC	[2006KHI/BOU]
	TRS		<0.4	310.5		
	TRS		0.4	319.4		
	TRS		23.6	320.0		
	TRS		<0.4	322.6		
	FUS		57.8	326.4	DSC	[2004MON/RAJ]
	TRS		<0.4	310.5		
	TRS		0.4	319.4		
	TRS		23.6	320.0		
	TRS		<0.4	322.6		
	FUS		57.18	326.4		[1998ROB/MON, 2001CHE/BOU]
	TRS		0.3	311.9		
	TRS		27.45	320.7		
	FUS		56.66	327.0	DSC	[2001CHE/BOU]
	TRS		26.50	320.0		
	FUS		56.75	326.7		[1991BAR/SCH]
	TRS		26.07	320.2		
	FUS		57.74	326.7	AC	[1996DOM/HEA, 1955SCH/BUS]
	TRS + FUS		78.9	326.5		[1929PAR/TOD]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		173.6 ± 10	298	B	[1991PIA/POM]
	V		119.1 ± 3.1	298	CRT	[2015GOB/CHI]
	V		126.7 ± 4.4	298	CGC	[2015GOB/CHI]
	V	(382–462)	106.6	397		[2006SAW/MOK]
	V	(434–539)	126.8	298	CGC	[2004CHI/HAN]
	V		128.6 ± 2.2	298	GS	[2001PUR/CHI]
	V		127.6 ± 0.8	298	CGC	[2000NIC/ORF]
	V		129.8 ± 2.9	298	CGC	[1997CHI/WIL]
	V	(397–434)	126 ± 1	415	TE	[1994PIA/FON]
	V	(390–531)	97.6	405	TE, ME, GS	[1991PIA/POM]
	V	(461–498)	90.9 ± 5.7	479	GS	[1990PIA/SCA]
	V	(457–675)	99.2	472	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{25}H_{52}$	[79370-85-7]	12-ethyltricosane				
	V	(435–454)	84.6	444	GC	[1982REC/GRE, 1999DYK/SVO]
$C_{25}H_{52}$	[1560-78-7]	2-methyltetracosane				
	V	(425–670)	104.6	440		[1999DYK/SVO]
$C_{25}H_{52}$	[126724-71-8]	5,5-bis(3,3′-dimethylbutyl)-2,2,8,8-tetramethylnonane				
	FUS		48.53	472.7		[1990MEN/LIA]
	V		91.9 ± 1.8	298	CGC	[1995CHI/HES]
$C_{25}H_{52}$	[163983-29-7]	7,7-dihexyltridecane				
	V		115.3 ± 1.8	298	CGC	[1995CHI/HES]
$C_{25}H_{52}S$	[66359-74-8]	1-pentacosanethiol				
	V	(458–709)	114.2	473	E	[1999DYK/SVO]
$C_{26}H_{14}$	[190-84-1]	1,12-phenyleneperylene (naphtha[1,2,3,4-ghi]perylene)				
	FUS		17.28	541.5		[1991ACR, 1980SMI]
$C_{26}H_{15}C_{12}N_5O_2$	[68808-70-8]	1,3-bis(cyano-4-chlorophenylcarbamoyl-methylene)isoindolin				
	FUS		123	679.2		[1993GRU]
$C_{26}H_{16}$	[191-68-4]	dibenzo[*g*, *p*]chrysene				
	SUB	(408–493)	142.2	423	A	[1987STE/MAL]
	SUB	(417–500)	141.8	458	ME	[1967WAK/INO]
$C_{26}H_{18}$	[1499-10-1]	9,10-diphenylanthracene				
	SUB	(313–453)	137.5	383	GS	[1995NAS/LEN]
	SUB		116.4			[1958KLO]
	SUB	(393–433)	143.6	413		[1958HOY/PEP, 1987STE/MAL]
	SUB	(481–502)	156.9 ± 4.2	492	HSA	[1953STE, 1970COX/PIL]
	V	(323–473)	102.7	398	GC	[2002LEI/CHA]
$C_{26}H_{18}$	[1530-12-7]	9,9′-bifluorenyl				
	FUS		36.9	519.2		[1994RAK/VER2]
	SUB	(383-408)	131.8 ± 1.1	395	T	[1994RAK/VER2]
	SUB		132.6 ± 1.1	298		[1994RAK/VER2]
	V	(383–408)	95.7		B	[1994RAK/VER2]
$C_{26}H_{18}N_2O_4$	[6408-72-6]	disperse violet 31				
	V	(453–523)	59.9	468	A	[1987STE/MAL]
$C_{26}H_{20}$	[632-51-9]	Tetraphenylethene				
	FUS		37.45	496.1	DSC	[1999VER/EBE]
	SUB	(343–389)	129.3 ± 0.7	366	GS	[1999VER/EBE]
	SUB		133.4 ± 0.7	298	GS	[1999VER/EBE]
$C_{26}H_{20}N_2O_2$	[3073-87-8]	2,2′-(1,4-phenylene)bis(4-methyl-5-phenyl)oxazole				
	SUB		150	480		[1989SCH/PEN]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{26}H_{22}$	[632-50-8]	1,1,2,2-tetraphenylethane				
	SUB		136.8 ± 2.9	298	GS	[1990BEC/DOG2]
	SUB	(370–423)	131.4 ± 2.1	396	GS	[1990BEC/DOG2]
$C_{26}H_{22}$	[2294-94-2]	1,1,1,2-tetraphenylethane				
	SUB		132.6 ± 2.1	298	GS	[1990BEC/DOG2]
	SUB	(340–400)	128.7 ± 2.1	370	GS	[1990BEC/DOG2]
	SUB		126.4 ± 1.7	434	HSA	[1956BEY/NIC]
$C_{26}H_{22}N_2O_2S_2$	[109538-15-0]	1,2-bis[5-(4-methoxy-β-azastyryl)-2-thienyl]-*trans*-ethylene				
	TRS (liq cryst)		63.5	538.2		
	TRS (liq cryst-to-liq)		0.8	567.2	DTA	[1978KOS/BUD]
$C_{26}H_{26}$	[35117-21-6]	Pentacyclo[18.2.2.2$^{(9,12)}$.0$^{(4,15)}$.0$^{(4,15)}$.0$^{(6,17)}$]hexacos-4,6$^{(17)}$,9,11,-15,20,22,23,25-nonane (triple layered [2.2]paracyclophane)				
	SUB	(299–412)	119.1 ± 1.5		TSGC	[1980NIS/SAK]
	SUB	(299–412)	125.9 ± 2.5	298	TSGC	[1980NIS/SAK]
$C_{26}H_{26}N_2O_6P_2$	[34670-52-5]	Phosphoramidic acid,*N*,*N*′-1,2-ethanediylbis-*P*, *P*,*P*′,*P*′-tetraphenyl ester				
	FUS		44.23	412.36	DSC	[2015CHE/DU]
$C_{26}H_{28}Cl_2N_4O_4$	[65277-42-1]	1-[4-(4-{[(2*R*,4*S*)-2-(2,4-dichlorophenyl)-2-(1*H*-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy}phenyl)piperazin-1-yl] ethan-1-one (ketoconazole)				
	FUS		57.7	421.7	DSC	[2010AVU/ALE]
	FUS		52.85	423	DSC	[2010BAI/VAN]
	FUS		48.2	422.5	DSC	[2010BAL/MAH]
$C_{26}H_{28}N_2$	[298-57-7]	(*E*)-1-(diphenylmethyl)-4-(3-phenylprop-2-enyl)piperazine(cinnarizine)				
	FUS		37.13	394	DSC	[2015PAU/HAR]
	FUS		40.87	394	DSC	[2010BAI/VAN]
$C_{26}H_{29}F_{25}$	[93454-73-0]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluorohexacosane				
	TRS		16.3	363		
	FUS		26.1	366	DSC	[1991HOP/MOL, 1988HOP/PUG]
	FUS		26	359.2	DSC	[1986RUS/RAB]
$C_{26}H_{29}NO$	[10540-29-1]	2-[4-[(1Z)-1,2-diphenyl-1-buten-1-yl]phenoxy]-*N*,*N*-dimethylethanamine (tamoxifen)				
	FUS		34	371	DSC	[2007BER/WAS]
$C_{26}H_{29}N_3O_6$	[55985-32-5]	1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylicacid, 3-methyl 5-[2-[methyl(phenylmethyl)amino]ethyl] ester				
	FUS		46.0	444.5	DSC	[2004MAR/KOZ]
$C_{26}H_{32}$	[103042-85-9]	6-octyl-1,2,3,4-tetrahydronaphthacene				
	V	(503–574)	103.2	518	A	[1987STE/MAL]
$C_{26}H_{32}O_6$		1,4,5,8-*tetrakis*(propoxy)-9,10-anthraquinone				
	FUS		28.63	473.9		[2001NOR/TOU]
$C_{26}H_{33}NO_3$	[483362-63-6]	2-(4-nitrophenyl)-1-[4-[2-(*trans*-4-butylcyclohexyl)ethyl]phenyl]ethanone				
	FUS		35.9	408.6	DSC	[2002SPA/DZI]
$C_{26}H_{33}NO_6$	[103890-78-4]	4-[2-[(1E)-3-(1,1-dimethylethoxy)-3-oxo-1-propenyl]phenyl]-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylic acid, diethyl ester (lacidipine)				
	FUS		45.96	455.3	DSC	[2001FOR/HEM]
$C_{26}H_{34}$	[2883-70-7]	9-dodecylanthracene				
	V	(495–566)	99.4	510	A	[1987STE/MAL]
$C_{26}H_{34}$	[3788-61-2]	9-dodecylphenathrene				
	V	(495–568)	95.7	510	A	[1987STE/MAL]
$C_{26}H_{34}O_4$		1,4,5,8-tetrapropoxy anthracene				
	FUS + TRS		43.93	410.2		[2001NOR/TOU]
[Note: The authors report only the total enthalpy of melting. Numerical value contains enthalpies for two solid–solid transitions that occur at 370.7 K and 385.5 K. Larger tetraalkoxy-derivatives show liquid crystalline behavior.]						
$C_{26}H_{36}O_3$	[63042-30-8]	3-[(1-oxooctyl)oxy]-estra-1,3,5(10)-trien-17-one				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		24.0	348	DSC	[1990YAN/EIR]
$C_{26}H_{38}$	[55268-63-8]	1,1-diphenyltetradecane				
	V	(467–530)	98.2	482	A	[1987STE/MAL]
$C_{26}H_{38}$	[55268-62-7]	1,1-di(4-tolyl)dodecane				
	V	(466–529)	98.3	481	A	[1987STE/MAL]
$C_{26}H_{38}$	[5171-91-5]	2,3-dimethyl-2,3-bis(4-*tert*-butylphenyl)-butane				
	FUS		43.93	493	DSC	[1983KRA/BEC]
	SUB		161.9		E, B	[1983KRA/BEC]
$C_{26}H_{38}O_2$	[3000-49-5]	3β-octyloxy-estra-1,3,5(10)-trien-17-one				
	FUS		19.0	331	DSC	[1990YAN/EIR]
$C_{26}H_{40}$	[95258-25-6]	5-octyl-1,2,3,4,4*a*,5,7,8,9,10,12,12*a*-dodecahydronaphthacene				
	V	(479–549)	91.9	494	A, MG	[1987STE/MAL, 1955SCH/WHI, 1999DYK/SVO]
$C_{26}H_{40}O_2$	[128805-68-5]	3-(octyloxy)-estra-1,3,5(10)-trien-17-ol				
	FUS		21.0	338	DSC	[1990YAN/EIR]
$C_{26}H_{41}F_{13}O$	[1240205-68-8]	1-[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)oxy]octane				
	FUS		37.34	300.6	DSC	[2010ZAG/CON]
$C_{26}H_{42}$	[66374-86-5]	1,1-bis(dodecahydroacenaphthylene-5-yl)ethane				
	V	(482–541)	110.9	497	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{42}O$	[141784-31-8]	*trans*-1-(4-heptanoylphenyl)-4-heptylcyclohexane				
	TRS (liq cryst)		16.49	343.2		
	TRS (liq cryst-to-liq)		7.71	344.7	DSC	[1992FUR/BUT]
$C_{26}H_{42}O_4$	[14103-61-8]	bis(3,5,5-trimethylhexyl)phthalate				
	V	(333–393)	113.6	348	A	[1987STE/MAL]
$C_{26}H_{42}O_4$	[84-76-4]	Dinonyl phthalate				
	V	(333–393)	108.9	348	A	[1987STE/MAL]
$C_{26}H_{46}$	[2655-95-0]	1,4-didecylbenzene				
	V	(468–536)	95.2	483	A	[1987STE/MAL]
$C_{26}H_{46}$	[2398-68-7]	1-phenyleicosane				
	V	(499–538)	94.7	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2398-66-5]	2-phenyleicosane				
	V	(492–531)	90.4	507	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2400-02-4]	3-phenyleicosane				
	V	(489–526)	92.1	504	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2400-03-5]	4-phenyleicosane				
	V	(487–527)	88.2	502	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2400-04-6]	5-phenyleicosane				
	V	(485–521)	94.3	500	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2398-64-3]	7-phenyleicosane				
	V	(483–520)	93.8	498	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[2398-65-4]	9-phenyleicosane				
	V	(483–520)	91.9	498	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{46}$	[55191-36-1]	8-(4-tolyl)nonadecane				
	V	(482–517)	94.5	497	A	[1987STE/MAL]
$C_{26}H_{48}$	[55401-75-7]	9-dodecyltetrahydroanthracene				
	V	(501–536)	102.7	519		[1999DYK/SVO]
$C_{26}H_{48}$	[55334-01-5]	9-dodecyltetrahydrophenanthrene				
	V	(502–542)	90.8	522		[1999DYK/SVO]
$C_{26}H_{48}N_6O_9$	[326813-31-4]	Formamide deferoxamine				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		92.93	430.8	DSC	[2000IHN/VEN]
$C_{26}H_{48}O_2$	[25006-68-2]	4,4,7,7,13,13,16,16-octamethylcyclooctadecane-1,10-dione				
	FUS		50.6	492.2		[1972BOR/DAL2]
$C_{26}H_{48}O_4$	[45302-47-4]	Docosyl maleate				
	FUS		87.1	355.2	DSC	[2016RIC/DEL]
$C_{26}H_{50}$	[700004-11-1]	9-[α-(*cis*-bicyclo[3.3.0]octyl)methyl]heptadecane				
	V	(455–518)	92.3	470	A	[1987STE/MAL, 1999DYK/SVO]
$C_{26}H_{50}$	[55334-09-3]	1,1-bis(4-methylcyclohexyl)dodecane				
	V	(484–520)	93.5	499	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}$	[55334-08-2]	1,1-dicyclohexyltetradecane				
	V	(493–529)	97.7	508	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}$	[55401-76-8]	1,1-dicyclopentylhexadecane				
	V	(471–525)	113.1	486	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}$	[55334-11-7]	2-hexadecylbicyclopentyl				
	V	(495–532)	97.7	510	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{50}N_6O_{10}S$	[130281-67-3]	Methylsulfonamide deferoxamine				
	FUS		117.8	416	DSC	[2000IHN/VEN]
$C_{26}H_{50}O_4$	[122-62-3]	*(dl)* bis(2-ethylhexyl)sebacate				
	V	(308–453)	114.9	323	A	[1987STE/MAL]
$C_{26}H_{50}O_4$	[2432-87-3]	Dioctyl sebacate				
	V		109.7	368	TGA	[1990KIS/SHO]
	V		120.8 ± 4.2	298	TGA	[1990KIS/SHO]
	V	(413–523)	107.1	428	A	[1987STE/MAL]
$C_{26}H_{50}O_4$	[103572-58-3]	Docosyl succinate				
	FUS		93.0	346.8	DSC	[2016RIC/DEL]
$C_{26}H_{51}NO_3$	[5168-42-3]	Dodecanoic acid, 2-[(1-oxododecyl)amino]ethyl ester				
	FUS		76.1	348.8	DSC	[2010KAM/TAR]
$C_{26}H_{52}$	[4443-55-4]	1-cyclohexyleicosane				
	V	(499–538)	94.2	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-56-5]	2-cyclohexyleicosane				
	V	(494–530)	98.3	509	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-57-6]	3-cyclohexyleicosane				
	V	(492–530)	94	507	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-58-7]	4-cyclohexyleicosane				
	V	(488–524)	98.3	503	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-59-8]	5-cyclohexyleicosane				
	V	(488–524)	98.3	503	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-60-1]	7-cyclohexyleicosane				
	V	(486–523)	93.6	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[4443-61-2]	9-cyclohexyleicosane				
	V	(486–523)	93.6	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[104338-48-9]	11-cyclohexyleicosane				
	FUS		48.7	269.9		[1949PAR/MOO2]
$C_{26}H_{52}$	[6703-82-8]	1-cyclopentylheneicosane				
	V	(498–537)	93.8	513	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[6703-81-7]	11-cyclopentylheneicosane				
	V	(486–524)	92.4	501	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{52}$	[18835-33-1]	1-hexacosene				
	V	(434–684)	106.1	449		[1999DYK/SVO]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{26}H_{52}$	[23014-57-5]	1,1,4,4,10,10,13,13-octamethylcyclooctadecane				
	TRS		6.74	427.2		
	FUS		20.17	438.2		[1972BOR/DAL, 1969BOR/DAL]
$C_{26}H_{52}N_2O_2$	[7003-56-7]	*N*,*N*′-1,2-ethanediylbis(dodecanamide)				
	FUS		54.3	311.7	DSC	[2011ALK/CAN]
$C_{26}H_{52}O_2$	[55373-89-2]	Methyl pentacosanoate				
	FUS		92.0	332.2	DSC	[2004CHI/ZHA]
	V	(467–558)	142.0 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{26}H_{52}O_2$	[24634-95-5]	Ethyl tetracosanate				
	TRS		28.2	317.7		
	FUS		57.8	327.4		[1996DOM/HEA, 1934KIN/GAR]
$C_{26}H_{52}O_2$	[22412-97-1]	Tetradecyl dodecanoate				
	FUS		82.5	311.3	DSC	[2011AYD/OKU]
$C_{26}H_{52}O_2$	[29710-34-7]	Hexadecyl decanoate				
	FUS		73.9	302.6	DSC	[2012AYD/AYD]
$C_{26}H_{52}O_2$	[506-46-7]	Hexadecasonic acid				
	FUS + TRS		88.5	358.8	DSC	[2015WIL/GOB]
	SUB		257.8 ± 3.5	298	V + F	[2015WIL/GOB]
	V		177.2 ± 2.4	298	CGC	[2015WIL/GOB]
$C_{26}H_{53}NO$	[74534-13-7]	*N*-decyl hexadecanamide				
	TRS		5.0	333		
	FUS		63.0	347	DSC	[1980CAR/BUS]
$C_{26}H_{54}$	[55282-16-1]	5-butyldocosane				
	V	(482–518)	94.0	497	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-15-0]	7-butyldocosane				
	V	(480–514)	97.2	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{45}$	[55282-14-9]	9-butyldocosane				
	V	(479–516)	91.9	494	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[13475-76-8]	11-butyldocosane				
	V	(480–516)	93.3	495	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-13-8]	5,14-dibutyloctadecane				
	V	(458–508)	89.3	473	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[15874-03-0]	6,11-dipentylhexadecane				
	V	(468–504)	88.9	483	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-12-7]	3-ethyl-5-(2-ethylbutyl)octadecane				
	V	(467–503)	88.4	482	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-11-6]	11-(1-ethylpropyl)heneicosane				
	V	(474–509)	93.5	489	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[629-87-8]	2-methylpentacosane				
	V	(433–680)	107.2	448		[1999DYK/SVO]
$C_{26}H_{54}$	[79370-84-6]	12-propyltricosane				
	V	(435–454)	91	445		[1982REC/GRE, 1999DYK/SVO]
$C_{26}H_{54}$	[55282-17-2]	3-ethyltetracosane				
	V	(490–529)	90	505	A	[1987STE/MAL]
$C_{26}H_{54}$	[630-01-3]	Hexacosane				
	TRS		33.6	327.8		
	FUS		61.1	330.9	DSC	[2007GNA/PLA]
	TRS		32.6	325		
	FUS		60.1	329.1	DSC	[2004MON/RAJ]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		34.1	327.5		
	FUS		59.4	330.1	DSC	[1999GIL]
	TRS		32.2	324.4		
	FUS		57.6	328.2	DSC	[1992LOU/ROU]
	TRS		30.4	324.4		
	FUS		63.9	329.2	DSC	[1991DOM/WYR]
	TRS		32.82	325.8		
	FUS		59.79	329.6		[1991CLA/LET]
	TRS		33.5	325.6		
	FUS		60.0	329.2		[1991BAR/SCH]
	TRS	(13–358)	33.43	325.5		
	TRS	(13–358)	60.70	329.3	AC	[1976AND/MAR]
	TRS		34.2	326.6		
	FUS		59.5	329.6		[1973COM]
	TRS		32.2	326.5		
	FUS		59.5	329.5	AC	[1996DOM/HEA, 1955SCH/BUS]
	SUB		177.2 ± 10	298	B	[1991PIA/POM]
	V		122.0 ± 3.1	298	CRT	[2015GOB/CHI]
	V		131.8 ± 5.7	298	CGC	[2015GOB/CHI]
	V	(434–539)	131.7	298	CGC	[2004CHI/HAN]
	V		139.3 ± 0.5	298	CGC	[2002CHI/WEB]
	V		136.4 ± 0.2	298	GS	[2001PUR/CHI]
	V		140.0 ± 2.2	298	CGC	[1997CHI/WIL]
	V	(391–437)	132 ± 1	414	TE	[1994PIA/FON]
	V	(404–546)	97.6	419	TE, ME, GS	[1991PIA/POM]
	V	(455–519)	99.0 ± 3.8	487	GS	[1990PIA/SCA]
	V	(466–685)	101.6	481	A, E	[1987STE/MAL, 1966KUD/ZWO]
	V	(478–530)	94.5	493	A	[1987STE/MAL]
$C_{26}H_{54}$	[55333-99-8]	7-hexyleicosane				
	V	(479–512)	101.1	494	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[55282-10-5]	11-neopentylheneicosane				
	V	(476–511)	93	491	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}$	[14739-72-1]	11-pentylheneicosane				
	V	(478–512)	96.3	493	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{26}H_{54}O$	[506-52-5]	1-hexacosanol				
	TRS + FUS		103.8	353.1	DSC	[2006NIC/KWE]
	TRS		16.74	332.2		
	FUS		67.78	351.7		[1970TRA/LOM]
	V		148.0 ± 0.8	298	CGC	[2006NIC/KWE]
$C_{26}H_{54}O_4S_2$	[123389-97-9]	(*l*)-rhamnose didecyl dithioacetal				
	FUS		26.1	332.3		
	FUS		53.2	385.2	DSC	[1989VAN/VAN]
$C_{26}H_{54}S$	[16331-25-2]	1-hexacosanethiol				
	V	(465–718)	116.2	480	E	[1999DYK/SVO]
$C_{27}H_{19}NO$	[2083-09-2]	2,5-bis(1,1′-biphenylyl)oxazole				
	V	(605–685)	109.7	610	A, I	[1987STE/MAL, 1975STE/SCH]
$C_{27}H_{19}NO$	[76733-99-8]	2-phenyl-5-(*p*-terphenyl-4-yl)oxazole				
	FUS		42.0	504.2	DSC	[2001DIN/MUR]
$C_{27}H_{19}NO$	[362612-65-5]	2-(*p*-terphenyl-4-yl)-5-phenyloxazole				
	FUS		37.0	485.2	DSC	[2001DIN/MUR]
$C_{27}H_{30}F_6N_2O_2$	[164656-23-9]	Dutasteride				
	FUS		34.4	522.1	DSC	[2015NUR/BOO]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{27}H_{30}N_2$	[221641-35-6]	2-(hept-l-ynyl)-5(4−*p*-hexylphenylbuta-1,3-diynyl) pyrimidine				
	FUS		39.0	426	DSC	[1999HUD/SHE]
$C_{27}H_{30}O_3$	[71203-39-9]	19-nor-17α-ethynyl-17β-(benzoyloxy-4-androsten-3-one				
	FUS		41.5	531	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{27}H_{30}O_{16}$	[153-18-4]	3-[[6-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranosyl]-oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4*H*-1-benzopyran-4-one (rutin)				
	FUS		82.3	450.2	DSC	[2007CHE/HUM]
$C_{27}H_{32}O_3$	[138306-51-1]	Spiro[8.5.0$^{(3,7)}$]-3,5-diphenyl-1,2,8-trioxa-10,12-tetramethyltetradec-5-ene				
	FUS		15.0	389.2	DSC	[1991JEF/JAB]
$C_{27}H_{33}O_4P$	[64532-95-2]	tris(2-isopropylphenyl)phosphate				
	V	(383–413)	108.5	398	GC-RT	[2014BRO/JAN]
$C_{27}H_{34}F_2O_7$	[23674-86-4]	21-(acetyloxy)-6,9-difluoro-11-hydroxy-17-(l-oxobutoxy)pregna-1,4-diene-3,20-dione				
	FUS (α)		32.3	470.9		
	FUS (β)		33.0	464.6		
	FUS (γ)		32.5	467.1	DSC	[2015GIA/PAL]
$C_{27}H_{35}NO_3$	[483362-64-7]	2-(4-nitrophenyl)-l-[4-[2-(*trans*-4-pentylcyclohexyl)ethyl]phenyl]ethanone				
	FUS		37.95	409	DSC	[2002SPA/DZI]
$C_{27}H_{36}N_2O_5$		*N*,*N*-diisopropyl naltrexone-3-O-carbamate				
	FUS		19.95	421.2	DSC	[2009VAD/BAN]
$C_{27}H_{36}O_8$	[73771-04-7]	17-[(ethoxy carbonyl)oxy]-11-hydroxy-21-(1-oxopropoxy)pregna-1,4-diene-3,20-dione				
	FUS		35.8	460.4	DSC	[2010NET/BAR]
	FUS		36.9	356/2	DSC	[2009NET/NOV]
$C_{27}H_{37}FO_6$	[2152-44-5]	Betamethasone valerate				
	FUS (I)		32.9	468.2		
	FUS (II)		27.0	455.8	DSC	[2015NAT/JES]
$C_{27}H_{38}O$	[3836-23-5]	19-nor-17α-ethynyl-17β-(heptanoyloxy-4-androsten-3-one				
	FUS		21.6	340	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{27}H_{38}O_3$	[105755-75-7]	3-[(1-oxononyl)oxy]-estra-1,3,5(10)-trien-17-one				
	FUS		24.0	337	DSC	[1990YAN/EIR]
$C_{27}H_{40}$	[55334-13-9]	5-pentadecylacenaphthene				
	V	(500–568)	105.7	534	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{27}H_{40}N_4O_2$	[182410-21-5]	2,2′-[(2,8,10-trimethylpyrido[3,2-g]quinoline-4,6-diyl)bis(oxy)]-bis[*N*,*N*-diethylethanamine]				
	FUS		16.1	415.3	DSC	[2008ABB/KAL]
$C_{27}H_{42}Cl_2N_2O_6$	[530-43-8]	Hexadecanoic acid, [R-(R*,R*)]-2-[(dichloroacetyl)amino]-3-hydroxy-3-(4-nitrophenyl)propyl ester (chloramphenicol palmitate)				
	FUS		64.02	368.2		[1998VAN/KEL, 1977BUR2, 1970BOR]
	FUS (I)		51.04	367.3		
	FUS (II)		41.3	360.8		[1985OHM/LIP]
	FUS (I)		65.7	363.5		
	FUS (II)		46.4	359.9		
	FUS (III)		45.5	359.5	DSC	[1985KAN/OTS]
$C_{27}H_{42}O_3$	[512-04-9]	(3β,25*R*)-spirost-5-en-3-ol (diosgenin)				
	FUS		34.43	485.5	DSC	[2014ZHA/WAN2]
	FUS		34.06	480.3	DSC	[2014CHE/QI]
$C_{27}H_{43}NO_2S$	[1892540-83-8]	*N*-(3,5-dimethyladamantan-1-yl)-2,4,6-triisopropylbenzenesulfonamide				
	SUB	(419–438)	139.7 ± 2.7	428	GS	[2016PER/VOL]
	SUB	(419–438)	151.6 ± 2.7	298	GS	[2016PER/VOL]
$C_{27}H_{44}O$	[313-04-2]	Desmosterol				
	FUS		15.9	388.2	DSC	[2009CHE/SU]
$C_{27}H_{46}O$	[57-88-5]	Cholesterol				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		28.5	421.7	DSC	[2009CHE/SU]
	FUS	(300–440)	25.1	423.2	DSC	[2008PEN/JIA]
	TRS		2.71	311.7		
	FUS		21.11	423.2	DSC	[2003KAL/PAU]
	FUS		26.5	422.5	DSC	[2001IWA/MIN]
	TRS	(5–425)	3.9	306.7		
	FUS		28.4	422.3	AC	[1998VAN/VAN]
	TRS		2.5	304.8		[1996DOM/HEA, 1988PET/TSY]
	FUS		27.41	420.2		[1996DOM/HEA]
	TRS		2.9	308.0	DSC	[1984EGL/STR]
	TRS		3.6	312.2		
	FUS		29.8	425.2	DSC	[1975MAR/SHU]
	FUS		25.9	420.2	DSC	[1970DAV/POR]
	FUS		29.8	422.2	DSC	[1969GEN]
	TRS		2.9	310.7	DSC	[1968VAN/SKO]
	SUB	(386–414)	142.5 ± 0.9		ME	[2009OJA/CHE]
	V		153.7 ± 0.8	298	CGC	[2006NIC/KWE]
	V	(411–447)	114.9	426	A	[1987STE/MAL, 1937HIC/HEC]
$C_{27}H_{47}F_9O$	[1240205-71-3]	1-[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]heneicosane				
	FUS		36.07	304.9	DSC	[2010ZAG/CON]
$C_{27}H_{48}$	[481-21-0]	17-(1,5-dimethylhexyl)-10,13-dimethyl-hexahydro-1*H*-cyclopenta[*a*]-phenanthrene (5-a-cholestane)				
	FUS		25.4	351.8	C	[2000MOK/RUZ]
	SUB		133.8	298		[2000MOK/RUZ]
	V		108.4	352		[2000MOK/RUZ]
	V	(481–538)	115.6	496	A	[1987STE/MAL]
$C_{27}H_{48}$	[40775-09-5]	Henicosylbenzene				
	V	(446–705)	108.4	461		[1999DYK/SVO]
$C_{27}H_{48}$	[6703-80-6]	11-phenylheneicosane				
	FUS		64.77	294.3		[1949PAR/MOO2]
	V	(491–529)	93.5	506	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{27}H_{48}N_2OS$	[467434-73-7]	*N*-[(3-methoxyphenyl)methyl]-*N′*-octadecylthiourea				
	FUS		64.17	375.2	DSC	[2002ABB/WOH]
$C_{27}H_{48}O$	[80-97-7]	5α-cholestan-3β-ol				
	FUS		22.6	413.5	DSC	[2001IWA/MIN]
$C_{27}H_{48}O$	[516-92-7]	5β-cholestan-3α-ol				
	FUS		15.8	385.8	DSC	[2001IWA/MIN]
$C_{27}H_{48}O$	[360-68-9]	5β-cholestan-3β-ol				
	FUS		16.1	373.8		[2002MIN/SAK]
$C_{27}H_{50}$	[55282-69-4]	5-pentadecyldodecahydroacephthalene				
	V	(486–554)	98.1	501	A	[1987STE/MAL]
$C_{27}H_{50}N_6O_9$	[5722-48-5]	Acetamide deferoxamine				
	FUS		118.4	448.9	DSC	[2000IHN/VEN]
$C_{27}H_{50}O_4$	[138115-03-4]	Docosyl itaconate				
	FUS		93.3	360.1	DSC	[2016RIC/DEL]
$C_{27}H_{50}O_6$	[538-23-8]	Glycerol trioctanoate				
	V		118.7	386	TGA	[1990KIS/SHO]
	V		135.4 ± 4.7	298	TGA	[1990KIS/SHO]
	V	(396–453)	116	411	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{27}H_{54}$	[6703-99-7]	11-cyclohexylheneicosane				
	V	(485–529)	107	500	A	[1987STE/MAL]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{27}H_{54}$	[6703-79-3]	11-(cyclopentylmethyl)heneicosane				
	V	(492–529)	94.4	507	A	[1987STE/MAL]
$C_{27}H_{54}$	[26718-82-1]	henicosylcyclohexane				
	V	(445–460)	107.8	460		[1999DYK/SVO]
$C_{27}H_{54}$	[15306-27-1]	1-heptacosene				
	V	(441–694)	108.7	456		[1999DYK/SVO]
$C_{27}H_{54}$	[163983-30-0]	1-decyl-1-undecylcyclohexane				
	V		133.6 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{54}N_3PS_6$	[194281-16-8]	tris(diisobutyldithiocarbamate)phosphorous				
	SUB		138 ± 3		DSC, E	[1997DES/DES]
$C_{27}H_{54}N_6$	[38565-87-6]	tris-*N*,*N*-diisobutylamino-1,3,5-triazine				
	FUS		35.81	372.6	DSC	[1986LAT/HOE]
$C_{27}H_{54}O_2$	[5802-82-4]	Methyl hexacosanoate				
	FUS		101.3	336.2	DSC	[2004CHI/ZHA]
	V	(467–558)	147.1 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{27}H_{54}O_2$	[36617-20-6]	Tetradecyl tridecanoate				
	FUS		85.38	313.2	DSC	[2011AYD/OKU2]
$C_{27}H_{56}$	[593-49-7]	Heptacosane				
	TRS		0.3	312.9		
	TRS		2.5	322.3		
	TRS		27.1	325.9		
	FUS		62.8	331.6	DSC	[2004MON/RAJ]
	TRS		0.3	315.2		
	TRS		2.52	323.6		
	TRS		27.78	326.8		
	FUS		61.70	332.4	DSC	[2001CHE/BOU]
	TRS		1.7	321.0		
	TRS		27.2	327.1		
	FUS		64.3	332.4	DSC	[1999GIL]
	TRS		2.26	318.0		
	TRS		26.28	325.4		
	TRS		0.3	312.9		
	TRS		2.5	322.3		
	TRS		27.1	325.9		
	FUS		62.8	331.6		[1998ROB/MON, 2001CHE/BOU]
	FUS		59.05	332.1	DSC	[1992LOU/ROU]
	TRS		2.38	320.3		
	TRS		26.57	326.2		
	FUS		60.42	332.0	AC	[1955SCH/BUS]
	TRS		19.65	321.2		
	FUS		58.10	332.2		[1938VER, 2001CHE/BOU]
	SUB		196.0 ± 30	298	B	[1991PIA/POM]
	V	(401–441)	132 ± 1	423	TE	[1994PIA/FON]
	V	(508–570)	94.2	523	ME, TE, GS	[1991PIA/POM]
	V	(401–441)	116.9 ± 3.0	421	TE	[1990POM/PIA]
	V	(473–695)	104.3	488	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{27}H_{56}$	[1561-02-0]	2-methylhexacosane				
	V	(441–690)	109.6	456		[1999DYK/SVO]
$C_{27}H_{56}$	[55282-29-6]	8-hexyl-8-pentylhexadecane				
	V		125.7 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{56}$	[55282-28-5]	8,8-dipentylheptadecane				
	V		128.1 ± 1.8	298	CGC	[1995CHI/HES]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{27}H_{56}$	[55282-32-1]	10-hexyl-10-methyleicosane				
	V		129.9 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{56}$	[55282-30-9]	5-ethyl-5-methyltetracosane				
	V		133.8 ± 1.8	298	CGC	[1995CHI/HES]
$C_{27}H_{56}S$	[66291-85-8]	1-heptacosanethiol				
	V	(471–727)	118.3	486	E	[1999DYK/SVO]
$C_{28}H_{12}Cl_2N_2O_4$	[130-20-1]	C.I. Vat Blue 6				
	SUB	(519–634)	199	577	GS	[1986NIS/AND]
$C_{28}H_{14}$	[190-39-6]	Phenanthro [1,10,9,8-opqra]perylene				
	SUB	(580–630)	180.5			[1987STE/MAL]
	SUB		180.7 ± 5	605	ME	[1952INO/SHI]
	V	(580–630)	180.5	595	A	[1987STE/MAL]
$C_{28}H_{44}N_2O_4$	[81-77-6]	C.I. Vat Blue 4				
	V	(519–634)	167	577	GS	[1986NIS/AND]
$C_{28}H_{16}$	[192-47-2]	1,2,4,5,7,8-tribenzopyrene (dibenzo(h,rst)pentaphene)				
	FUS		28.8	608		[1980SMI]
$C_{28}H_{18}$	[1055-23-8]	9,9′-bianthryl				
	SUB		128.4 ± .2			[1970COX/PIL, 1958HOY/PEP]
	SUB	(413–473)	127.9	443		[1958HOY/PEP, 1987STE/MAL]
	SUB		148.1			[1951MAG/HAR, 1960JON]
$C_{28}H_{18}$	[20532-03-0]	9,9′-biphenanthryl				
	SUB		151.5			[1951MAG/HAR, 1960JON]
$C_{28}H_{20}S$	[362612-62-2]	3-(*p*-terphenyl-4-yl)-5-phenylthiophene				
	FUS		43	561.2	DSC	[2001DIN/MUR]
$C_{28}H_{20}S$	[362612-62-2]	2-(*p*-terphenyl-4-yl)-4-phenylthiophene				
	FUS		42	554.2	DSC	[2001DIN/MUR]
$C_{28}H_{20}S$	[56316-86-0]	2,5-bis(biphenyl-4-yl)thiophene				
	FUS		39	595.2	DSC	[2001DIN/MUR]
$C_{28}H_{22}$	[15300-82-0]	9,9′-dimethyl-9,9′-bifluorenyl				
	SUB	(368–403)	118.7 ± 1.3	386	T	[1994RAK/VER2]
	SUB	(368–403)	119.7 ± 1.3	298	T	[1994RAK/VER2]
	V	(368–403)	94.6		B	[1994RAK/VER2]
$C_{28}H_{22}N_2O_2$		1,4-[bis[(4-methylphenyl)amino]-9,10-anthracenedione				
	FUS		36.59	491.2		[1991BAU/WEB]
$C_{28}H_{24}O_4$	[74568-07-3]	Calix[4]arene-25,26,27,28-tetrol				
	SUB		167 ± 2		ME	[2008SUR, 2011SUR/VOR]
$C_{28}H_{24}O_8$	[125748-07-4]	2,8,14,20-tetramethyl-4,6,10,12,16,18,20,24-octahydroxyresorci[4]arene (calix[4]resorcinarene)				
	FUS		38.2	578.6	DSC	[2010FRA/SAL]
$C_{28}H_{24}O_{16}S_4$	[112269-92-8]	4-sulfonato-calix[4]arene				
	FUS		192.4	549.8	DSC	[2005YAN/MAN]
$C_{28}H_{26}N_4O_8$	[74734-27-3]	1,4-bis(3-phenylcarbamoyl-2-oxo-5-oxazolidin-5-ylmethoxy)benzene				
	FUS (I)		10.1	475.2		
	FUS (II)		5.1	502.2	DSC	[1990SHI/HAY]
$C_{28}H_{28}N_2O_6P_2$	[34670-63-8]	Tetraphenylpiperazine-1,4-diyldiphosphonate				
	FUS		59.95	457.8	DSC	[2014FEN/TAN]
$C_{28}H_{28}P_2$	[7688-25-7]	1,4-bis(diphenylphosphino)butane				
	FUS		45.3	405.9	DTA	[1989HUI/VAN]
	SUB	(425–455)	171.6 ± 2.5	443	B	[1989HUI/VAN]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(425–455)	126.3 ± 2	443	ME	[1989HUI/VAN]
$C_{28}H_{29}F_2N_3O$	[2062-78-4]	1-[1-[4,4-bis(4-fluorophenyl)butyl]-4-piperidyl]-2-benzimidazolinone (pimozide)				
	FUS		42.74	492	DSC	[2010BAI/VAN]
	FUS		46.9	493.5	DSC	[2008THI/SUB]
$C_{28}H_{30}N_4$	[1257-25-6]	2,3,7,8,12,13,17,18-octamethylporphyrin				
	SUB		192 ± 8.3		ME	[2011SUR/VOR]
	SUB	(593–653)	268 ± 11		GS	[2001NIK/SUL]
$C_{28}H_{31}FN_{40}$	[68844-77-9]	1-[(4-fluorophenyl)methyl]-*N*-[1-[2-(4-methoxyphenyl)ethyl]-4-piperidmyl]-1*H*-benzimidazol-2-amine (astemizole)				
	FUS		51.1	447.6	DSC	[2007BER/WAS]
$C_{28}H_{31}F_{25}$	[93454-74-1]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorooctacosane				
	FUS		41.8	367	DSC	[1988HOP/PUG]
	FUS		43.1	263.2	DSC	[1986RUS/RAB]
$C_{28}H_{32}$	[55282-03-6]	1,7-diphenyl-4-(3-phenylpropyl)-3-heptene				
	V	(488–556)	98.0	503	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{34}$	[55282-64-9]	1,7-diphenyl-4-(3-phenylpropyl)heptane				
	V	(490–557)	100.3	505	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{35}FO_7$	[51022-69-6]	Amcinonide				
	FUS		33.1	527.1	DSC	[2015NUR/BOO]
$C_{28}H_{36}N_4$	[4475-42-7]	5,10,15,20,22, 24-hexahydro-5,5,10,10,15,15,20,20-octamethyl-21*H*,23*H*-porphine				
	SUB		96.0 ± 3.5		ME	[2011SUR/VOR]
$C_{28}H_{38}$	[59358-73-5]	1,1-diphenyl-1,1′-bicyclooctyl				
	FUS		35.98	432	DSC	[1983KRA/BEC]
	SUB		174.5		E, B	[1983KRA/BEC]
$C_{28}H_{40}O_3$	[128788-27-2]	3-[(1-oxodecyl)oxy]-estra-1,3,5(10)-trien-17-one				
	FUS		29.0	344	DSC	[1990YAN/EIR]
$C_{28}H_{40}O_{10}$	[17455-25-3]	Dibenzo[30-crown-10]				
	TRS		0.98	346.3		
	FUS		86.5	377.6	DSC	[2016SAN/CRU]
	SUB		255.7 ± 5.3	298	V + F	[2016SAN/CRU]
	V	(545–595)	110.2 ± 0.9	570	TGA	[2016SAN/CRU]
	V	(545–595)	186.9 ± 3.9	298	TGA	[2016SAN/CRU]
$C_{28}H_{41}F_{17}O$	[1240205-67-7]	1-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]octadecane				
	FUS		49.46	312.9	DSC	[2010ZAG/CON]
$C_{28}H_{44}O$	[57-87-4]	Ergosterol				
	SUB	(318–412)	147.0 ± 0.9		ME	[2009OJA/CHE]
	V	(421–454)	118.7	436	A	[1987STE/MAL, 1937HIC/HEC]
$C_{28}H_{46}O$	[141784-32-9]	*trans*-1-heptyl-4-(4-nonanoylphenyl)cyclohexane				
	TRS (liq cryst)		20.8	343.4		
	TRS (liq cryst-to-liq)		11.32	353.3	DSC	[1992FUR/BUT]
$C_{28}H_{46}O_2$	[4351-55-7]	Cholesterol formate				
	FUS		21.9	370.0	DSC	[1970DAV/POR]
$C_{28}H_{46}O_4$	[26761-40-0]	Diisodecyl phthalate				
	V	(371–496)	79.3	386	A	[1987STE/MAL]
$C_{28}H_{48}O_4$	[175848-67-6]	2,5-di-*n*-undecyloxy-1,4-benzoquinone				
	TRS		12.9	367.4		
	TRS		28.4	390		
	FUS		52.1	397.2	DSC	[1996KEE/VAN]
$C_{28}H_{50}$	[5634-22-0]	Docosylbenzene				

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(453–715)	110.8	468		[1999DYK/SVO]
$C_{28}H_{50}$	[55334-72-0]	2-decyl-1-phenyldodecane				
	V	(497–532)	102.5	512	A	[1987STE/MAL]
$C_{28}H_{50}O_{11}$		di[1-(2-ethylhexyl)oxycarbonyl]ethyl diethylene glycol dicarboxylate				
	V	(463–553)	116.6	478	A	[1987STE/MAL]
$C_{28}H_{50}O_{11}$	[5348-55-0]	Di[1-(octyloxycarbonyl)ethyl] diethylene glycol dicarboxylate				
	V	(463–564)	112.5	478	A	[1987STE/MAL]
$C_{28}H_{52}$	[55334-73-1]	1,7-dicyclohexyl-4-(3-cyclohexylpropyl)heptane				
	V	(482–549)	98.7	497	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{52}N_6O_9$	[326813-19-8]	Propylamide deferoxamine				
	FUS		116.9	449.6	DSC	[2000IHN/VEN]
$C_{28}H_{52}O_2$	[29844-60-8]	4,4,8,8,14,14,18,18-octamethylcycloeicosane-1,11-dione				
	FUS		36.8	418.2		[1972BOR/DAL2]
$C_{28}H_{54}$	[55255-74-8]	1-cyclohexyl-2-(cyclohexylmethyl)pentadecane				
	V	(501–536)	105.4	516	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{55}NO_3$	[1213779-60-2]	Tridecanoic acid, 2-[(1-oxotridecyl)amino]ethyl ester				
	FUS		68.6	349.9	DSC	[2010KAM/TAR]
$C_{28}H_{56}$	[61828-07-7]	Docosylcyclohexane				
	V	(452–715)	110	467		[1999DYK/SVO]
$C_{28}H_{56}$	[18835-34-2]	1-octacosene				
	V	(448–703)	111	463		[1999DYK/SVO]
$C_{28}H_{56}$	[6704-00-3]	11-(cyclohexylmethyl)heneicosane				
	V	(499–538)	94.2	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{56}$	[55255-73-7]	2,2,4,10,12,12-hexamethyl-7-(3,5,5-trimethylhexyl)-6-tridecene				
	V	(426–488)	83.8	441	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{56}$	[29844-61-9]	1,1,5,5,11,11,15,15-octamethylcycloeicosane				
	FUS		47.7	439.2		[1972BOR/DAL]
$C_{28}H_{56}O_2$	[55682-91-2]	Methyl heptacosanoate				
	FUS		100.7	336.2	DSC	[2004CHI/ZHA]
	V	(467–558)	152.2 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{28}H_{56}O_2$	[29030-81-7]	Ethyl hexaconsanate				
	TRS		31.11	322.7		
	FUS		63.7	322.7	Cryst.	[1996DOM/HEA, 1934KIN/GAR]
$C_{28}H_{56}O_2$	[3234-85-3]	Tetradecyl tetradecanoate				
	FUS		89.4	314.8	DSC	[2011AYD/OKU]
$C_{28}H_{56}O_2$	[20834-06-4]	Hexadecyl dodecanoate				
	FUS		83.0	311.4	DSC	[2012AYD/AYD]
$C_{28}H_{58}$	[1561-00-8]	2-methylheptacosane				
	V	(448–700)	111.9	463		[1999DYK/SVO]
$C_{28}H_{58}$	[3035-75-4]	2,2,4,10,12,12-hexamethyl-7-(3,5,5-trimethylhexyl)tridecane				
	V	(308–393)	98.5	323	A	[1987STE/MAL, 1964MOR]
	V	(429–491)	84.9	444	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{28}H_{58}$	[55373-86-9]	7-hexyldocosane				
	V	(506–531)	100.7	518	A	[1987STE/MAL]
$C_{28}H_{58}$	[630-02-4]	Octacosane				
	TRS		37.77	329.65		
	FUS		67.47	333.25	DSC	[2013BEN/KHI, 2012BEN/KHI]
	TRS		31.52	329.6		
	FUS		67.38	334.2	DSC	[2007HAF/MAH]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		35.2	329.4		
	FUS		63.0	333.4	DSC	[2004MON/RAJ]
	TRS + FUS		99.1	336.3	DSC	[2000PAU/MEH]
	TRS		36.7	331.9		
	FUS		65.3	334.9	DSC	[1999GIL]
	TRS		33.7	330.4		
	FUS		66.5	334.0	DSC	[1991DOM/WYR]
	TRS		33.7	330.7		
	FUS		63.4	334.7		[1991CLA/LET]
	TRS		35.4	321.3		
	FUS		64.6	334.5		[1973COM]
	TRS		35.44	331.4		
	FUS		64.64	334.5	AC	[1996DOM/HEA, 1955SCH/BUS]
	TRS		24.5	330.1		
	FUS		66.9	334.4	C	[1953HOF/DEC]
	TRS + FUS		95.0	334.5		[1948MAZ]
	SUB	(323–329)	195.8 ± 2.2	326		[2009RAZ/NAC]
	SUB		208.9 ± 10	298	B	[1991PIA/POM]
	V		128.6 ± 3.3	298	CRT	[2015GOB/CHI]
	V		142.3 ± 8.6	298	CGC	[2015GOB/CHI]
	V	(339–412)	117.4 ± 1.2	376		[2009RAZ/NAC]
	V	(354–517)	118.5	369	GC	[2007MOK/RAZ]
	V	(434–539)	141.9	298	CGC	[2004CHI/HAN]
	V		150.8 ± 0.5	298	CGC	[2002CHI/WEB]
	V		150.7 ± 1.7	298	CGC	[2000NIC/ORF]
	V		152.4 ± 2.9	298	CGC	[1997CHI/WIL]
	V	(483–588)	100.5	498		[1994MOR/KOB]
	V	(407–456)	135 ± 3	431	TE	[1994PIA/FON]
	V	(426–493)	105.5	441	TE, ME, GS	[1991PIA/POM]
	V	(473–515)	103.1 ± 3.0	494	GS	[1990PIA/SCA]
	V	(450–575)	100.6	500	EB, IP	[1989CHI/NGU]
	V	(450–575)	98.1	560	EB, IP	[1989CHI/NGU]
	V	(300–390)	131.7	315	A	[1987STE/MAL]
	V	(481–705)	106.6	496	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{28}H_{58}$	[13475-77-9]	9-octyleicosane				
	V	(460–530)	106.8	475	A	[1987STE/MAL]
$C_{28}H_{58}O$	[5412-98-6]	15-oxanonacosane				
	TRS		8.37	315.6		
	FUS		113.39	316.8	DSC	[2004TYA/BIS]
$C_{28}H_{58}S$	[16331-26-3]	1-octacosanethiol				
	V	(477–736)	120.2	492	E	[1999DYK/SVO]
$C_{29}H_{35}NO_2$	[84371-65-3]	17β-hydroxy-11β-[4-(dimethylamino)-phenyl]-17α-(prop-1-ynyl)-estra-4,9-dien-3-one (mifepristone)				
	FUS		31.7	467.1	DSC	[2006WAS/HOL]
$C_{29}H_{41}NO_4$	[52485-79-7]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-6,14-ethenomorphinan-7-methanol				
	FUS		26.8	491.3	DSC	[1995STI/DUA]
$C_{29}H_{42}O_3$	[105755-76-8]	3-[(1-oxoundecyl)oxy]-estra-1,3,5(10)-trien-17-one				
	FUS		34.0	345	DSC	[1990YAN/EIR]
$C_{29}H_{44}O_2$	[118-82-1]	3,3′,5,5′-tetra-*tert*-butyldiphenylmethane-4,4′-diol				
	FUS		42.97	447.7	DTA	[1972INO/LIA]
$C_{29}H_{47}F_{13}O$	[1240205-73-5]	1-[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)oxy]heneicosane				
	FUS		49.56	314.0	DSC	[2010ZAG/CON]
$C_{29}H_{48}O$	[83-48-7]	β-stigmasterol				
	SUB	(390–417)	168.4 ± 1.4		ME	[2009OJA/CHE]

TABLE 14. Phase change enthalpies of C_{19}–C_{29} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{29}H_{48}O_2$	[604-35-3]	Cholesterol acetate				
	FUS		20.4	387.8	DSC	[1970DAV/POR]
$C_{29}H_{50}$	[55373-90-5]	11-(2,5-dimethylphenyl)-10-heneicosene				
	V	(471–534)	99.2	486	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{29}H_{50}O$	[83-46-5]	β-sitosterol				
	SUB	(389–410)	143.8 ± 0.5		ME	[2009OJA/CHE]
$C_{29}H_{52}$	[61828-04-4]	Tricosylbenzene				
	V	(459–724)	113.2	474		[1999DYK/SVO]
$C_{29}H_{52}$	[18835-35-3]	1-nonacosene				
	V	(455–713)	113.3	470		[1999DYK/SVO]
$C_{29}H_{52}$	[55373-91-6]	11-(2,5-dimethylphenyl)heneicosane				
	V	(472–535)	100.8	487	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{29}H_{52}N_6O_{11}$	[84211-47-2]	Succinamide deferoxamine				
	FUS		101	436.2	DSC	[2000IHN/VEN]
$C_{29}H_{54}N_6O_9$	[326813-21-2]	Butylamide deferoxamine				
	FUS		111.4	451.1	DSC	[2000IHN/VEN]
$C_{29}H_{56}N_2O_2S$	[1383124-22-8]	1,3-ditetradecanoyl thiourea				
	FUS		59.4	320.6	DSC	[2011ALK/TEK]
$C_{29}H_{56}O_4$	[10525-39-0]	neopentyl glycol dilaurate				
	FUS		45.8	283.9	DSC	[2013SAR/ALK]
$C_{29}H_{58}$	[61828-08-8]	tricosylcyclohexane				
	V	(459–724)	112.3	474		[1999DYK/SVO]
$C_{29}H_{58}O_2$	[55682-92-3]	methyl octacosanoate				
	FUS		109.7	340.2	DSC	[2004CHI/ZHA]
	V	(467–558)	157.5 ± 4.5	298	CGC	[2004CHI/ZHA]
$C_{29}H_{58}O_2$	[36617-31-9]	tetradecyl pentadecanoate				
	FUS		94.25	318.6	DSC	[2011AYD/OKU2]
$C_{29}H_{58}O_3$	[153821-35-3]	ditetradecyl carbonate				
	FUS		97.39	309.5	DSC	[2012KEN]
	FUS		103.2	305.0	DSC	[2010KEN]
$C_{29}H_{60}$	[1560-98-1]	2-methyloctacosane				
	V	(455–709)	114.2	470		[1999DYK/SVO]
$C_{29}H_{60}$	[630-03-5]	nonacosane				
	TRS		0.2	314.2		
	TRS		2.47	325.4		
	TRS		30.03	331.8		
	FUS		66.94	336.8	DSC	[2001CHE/BOU]
	TRS		1.8	325.1		
	TRS		30.5	332.2		
	FUS		70.8	337.1	DSC	[1999GIL]
	TRS		29.71	331.4		
	FUS		66.11	336.6	AC	[1996DOM/HEA, 1955SCH/BUS]
	V	(422–452)	112.5	437		[2006SAW/MOK]
	V	(434–539)	147.1	298	CGC	[2004CHI/HAN]
	V	(423–457)	137 ± 3	440	TE	[1994PIA/FON]
	V	(423–456)	137.1 ± 3.0	439	TE	[1990POM/PIA]
	V	(488–714)	109	503	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{29}H_{60}S$	[66213-92-1]	1-nonacosanethiol				
	V	(483–744)	122	498	E	[1999DYK/SVO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{30}H_{14}O_2$	[128-70-1]	8,16-pyranthenedione (C. I. Vat Orange 9)				
	SUB	(503–543)	197.7	518	A	[1987STE/MAL]
	SUB		181.2	498	ME	[1951INO]
$C_{30}H_{16}$	[191-13-9]	Pyranthrene				
	SUB		194.5 ± 6.7	595	ME	[1952INO/SHI]
$C_{30}H_{22}$	[13476-68-1]	1,3-bis(biphenyl-4-yl)benzene				
	FUS		55.0	548.2	DSC	[2001DIN/MUR]
$C_{30}H_{22}$	[13478-57-4]	1-(*p*-terphenyl-4-yl)-3-phenylbenzene				
	FUS		56.0	531.2	DSC	[2001DIN/MUR]
$C_{30}H_{22}$	[3383-32-2]	1,2,4,5-tetraphenylbenzene				
	SUB		161.4 ± 1.6	298	ME	[2011LIM/ROC]
$C_{30}H_{22}$	[6243-23-8]	*o*-quinquephenyl				
	FUS		32.4	428.8	DSC	[2013ROD/ROC]
$C_{30}H_{22}$	[16716-13-5]	*m*-quinquephenyl				
	FUS		31.2	387.1	DSC	[2013ROD/ROC]
$C_{30}H_{24}N_2$	[14118-16-2]	1,4-bis(diphenylamino)benzene				
	FUS		44.1	475.4	DSC	[2013COS/SAN]
	SUB	(440–461)	176.6 ± 0.3	451	ME	[2013COS/SAN]
	SUB	(440–461)	178.8 ± 1.6	298	ME	[2013COS/SAN]
$C_{30}H_{24}O_8P_2$	[51732-57-1]	Phosphoric acid, *P*,*P*′-1,4-phenylene *P*,*P*,*P*′,*P*′-tetraphenyl ester				
	FUS		61.38	381.5	DSC	[2015YU/WAN]
$C_{30}H_{28}O_4$	[142433-64-5]	25,27-dimethoxycalix[4]arene-26,28-diol				
	SUB		75 ± 2		ME	[2008SUR]
$C_{30}H_{30}$	[2819-41-2]	1,1,6,6-tetraphenylhexane				
	V	(511–579)	108.1	526	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{30}H_{30}N_4O_2$	[270586-12-4]	α,Ω-bis(azobenzene-4-oxy)hexane				
	FUS		73.53	442.2	DSC	[2000BLA/LUC]
$C_{30}H_{32}P_2$	[19845-69-3]	1,6-bis(diphenylphosphino)hexane				
	FUS		66.8	399.4	DSC	[1998ZHA/TAN]
$C_{30}H_{34}$	[40339-27-3]	1,10-di(1-naphthyl)decane				
	V	(540–616)	108.6	555	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{30}H_{37}F_{25}$	[93454-75-2]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorotricontane				
	FUS		49.7	370	DSC	[1988HOP/PUG]
	FUS		47.8	365.2	DSC	[1986RUS/RAB]
$C_{30}H_{40}O_6$	[351902-43-7]	1,4,5,8-tetrakis(butoxy)-9,10-anthraquinone				
	FUS		32.28	473.9	DSC	[2001NOR/TOU]
$C_{30}H_{42}O_4$	[351902-48-2]	1,4,5,8-tetrabutoxyanthracene				
	FUS + TRS		49.93	410.2	DSC	[2001NOR/TOU]
[Note: Authors report only the total enthalpy of melting. The numerical value contains enthalpies for two solid–solid transitions that occur at 370.7 K and 385.5 K. Larger tetraalkoxy-derivatives show liquid crystalline behavior.]						
$C_{30}H_{44}O_3$	[128788-28-3]	3-[(1-oxododecyl)oxy]-estra-1,3,5(10)-trien-17-one				
	FUS		31.0	342	DSC	[1990YAN/EIR]
$C_{30}H_{46}$	[85668-74-2]	3,4-diethyl-3,4-bis(4-*tert*-butylphenyl)-hexane				
	FUS		29.71	400	DSC	[1983KRA/BEC]
	SUB		167.8		E, B	[1983KRA/BEC]
$C_{30}H_{46}F_4O_2$	[79312-06-4]	Cholesteryl 2,2,3,3-tetrafluoropropionate				
	FUS		28.6	422.6	DSC	[1981YAN/NAB]
$C_{30}H_{46}O_2S$	[1620-93-5]	bis[3,5-di-*tert*-butyl-4-hydroxybenzyl]sulfide				
	FUS		43.1	417.2	DTA	[1972INO/LIA]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{30}H_{46}O_3$	[4481-62-3]	3-oxo-lup-20(29)-en-28-oic acid (betulonic acid)				
	FUS		26.3	530.5	DSC	[2016TAN/SHI]
$C_{30}H_{49}BrO_2$	[73112-93-3]	Cholesteryl α-bromopropionate				
	FUS		35.7	409.5	DSC	[1981YAN/NAB]
$C_{30}H_{49}ClO_2$	[79312-05-3]	Cholesteryl α-chloropropionate				
	FUS		48.5	409.1	DSC	[1981YAN/NAB]
$C_{30}H_{50}O_2$	[473-98-3]	3β-lup-20(29)-ene-3,28-diol (betulin)				
	FUS		55.17	528.1	DSC	[2016MOO/RAR]
	FUS (orthorhombic)		40.3	518.3	DSC	[2013DRE/MIK]
	FUS		55.16	527.9	DSC	[2008ZHA/YAN]
$C_{30}H_{54}$	[55268-64-9]	1,10-bis(decahydro-1-naphthyl)decane				
	V	(520–583)	119.7	535	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{30}H_{54}$	[55281-91-9]	1,1,6,6-tetracyclohexylhexane				
	V	(501–569)	103	516	A	[1987STE/MAL]
$C_{30}H_{54}$	[61828-05-5]	Tetracosylbenzene				
	V	(466–732)	115.3	481		[1999DYK/SVO]
$C_{30}H_{54}O_6$	[52193-50-7]	*trans*-tris(2-ethylhexyl)aconitate				
	V	(437–551)	97.1	452	A	[1987STE/MAL, 1953MAG/MOD]
$C_{30}H_{54}O_6$	[5400-99-7]	tris(2-ethylhexyl)-1,2,3-propanetricarboxylate				
	V	(438–551)	97.9	453	A	[1987STE/MAL, 1953MAG/MOD]
$C_{30}H_{56}N_6O_9$	[103991-47-5]	Valeramide deferoxamine				
	FUS		123.1	453.6	DSC	[2000IHN/VEN]
$C_{30}H_{56}O_2$	[37465-23-9]	5,5,8,8,16,16,19,19-octamethylcyclodocosane-1,12-dione				
	FUS		47.7	442.2		[1972BOR/DAL2]
$C_{30}H_{58}O_4$	[2432-89-5]	Didecyl sebacate				
	V		120.5	405	TGA	[1990KIS/SHO]
	V		138.7 ± 4.9	298	TGA	[1990KIS/SHO]
$C_{30}H_{59}NO_3$	[111672-54-9]	Tetradecanoic acid, 2-[(1-oxotetradecyl)amino]ethyl ester				
	FUS		94.1	356.8	DSC	[2010KAM/TAR]
$C_{30}H_{60}$	[61828-09-9]	Tetracosylcyclohexane				
	V	(465–733)	114.6	480		[1999DYK/SVO]
$C_{30}H_{60}$	[18435-53-5]	1-tricontene				
	V	(462–721)	115.4	477		[1999DYK/SVO]
$C_{30}H_{60}$	[37590-56-0]	1,1,4,4,12,12,15,15-octamethylcycloodocosane				
	FUS		58.58	411.2		[1972BOR/DAL]
$C_{30}H_{60}$	[72443-19-7]	15-triacontene				
	TRS		30.96	324.2		
	FUS		49.79	325.2	DSC	[2004TYA/BIS]
$C_{30}H_{60}N_2O_2$	[5136-46-9]	*N*,*N*′-1,2-ethanediylbis(tetradecanamide)				
	FUS		62.5	323.9	DSC	[2011ALK/CAN]
$C_{30}H_{60}N_2O_2$	[7672-70-0]	*N*,*N*′-1,6-hexanediylbis(dodecanamide)				
	FUS		52.9	312.0	DSC	[2010CAN/ALK]
$C_{30}H_{60}O_2$	[4536-26-9]	Tetradecyl hexadecanoate				
	FUS		96.8	321.2	DSC	[2012AYD/OKU]
$C_{30}H_{60}O_2$	[2599-01-1]	Hexadecyl tetradecanoate				
	FUS		102.0	322.6	DSC	[2012AYD/AYD]
$C_{30}H_{60}O_2$	[3234-84-2]	Octadecyl dodecanoate				
	FUS		91.03	315.4	DSC	[2013AYD]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{30}H_{60}O_4$	[56444-66-7]	2,2,6,6,9,9,13,13,17,17,20,20-dodecamethyl-1,3,12,14-tetraoxacyclodocosane				
	FUS		57.3	406.4		[1975BOR]
$C_{30}H_{60}O_{15}$	[109635-67-8]	45-crown-15				
	FUS		70.6	311.2	DSC	[1996YAN/YU]
$C_{30}H_{61}Br$	[4209-22-7]	1-bromotricontane				
	TRS		23.85	330.2		
	FUS		79.5	339.6	C	[1953HOF/DEC]
$C_{30}H_{62}$	[111-01-3]	2,6,10,15,19,23-hexamethyltetracosane (squalane)				
	V	(363–513)	116.2	378	A	[1987STE/MAL]
$C_{30}H_{62}$	[55319-83-0]	9-octyldocosane				
	V	(518–588)	109.3	533	A	[1987STE/MAL]
$C_{30}H_{62}$	[638-68-6]	Triacontane				
	TRS		36.5	331.2		
	FUS		70.1	338.0	DSC	[2016BOU/HAF]
	TRS		34.7	336.9		
	FUS		63.4	340.5	DSC	[2012PLA/KOT]
	TRS		41.4	336.4		
	FUS		74.3	339.3	DSC	[1999GIL]
	TRS		37.49	111.82		
	FUS		68.83	338.7		[1996DOM/HEA, 1973COM]
	V	(434–539)	152.3	298	CGC	[2004CHI/HAN]
	V		164.5 ± 0.4	298	CGC	[2000NIC/ORF]
	V	(422–487)	143 ± 2	454	TE	[1994PIA/FON]
	V	(495–723)	111.3	510	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{30}H_{62}$	[1560-75-4]	2-methylnonacosane				
	V	(461–718)	116.8	476		[1999DYK/SVO]
$C_{30}H_{62}S$	[66213-99-8]	1-triacontanethiol				
	V	(488–751)	124	503	E	[1999DYK/SVO]
$C_{30}H_{63}N$	[1070-01-5]	*N*,*N*,*N*-tridecylamine				
	V	(545–759)	76.8	560	A	[1987STE/MAL]
$C_{31}H_{15}NO_3$	[3271-76-9]	C.I. Vat Green 3				
	SUB	(519–634)	155	577	GS	[1986NIS/AND]
$C_{31}H_{32}O_2P_2$	[32305-98-9]	(−)-2,3-*O*-isopropylidene-2,3-dihydroxy-1,4-bis(diphenylphosphino)butane				
	TRS	(78–380)	3.42	348.7		
	FUS	(78–380)	38.61	364.2	AC	[2000WU/TAN]
$C_{31}H_{34}$	[56247-76-8]	1,1-di(1-naphthyl)-1-undecene				
	V	(518–588)	109.3	533	A	[1987STE/MAL]
$C_{31}H_{43}NO_5$	[171018-28-3]	3-(acetyloxy)-17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-6,14-ethenomorphinan-7-methanol				
	FUS		22.4	440.3	DSC	[1995STI/DUA]
$C_{31}H_{44}O_2$	[1187741-89-4]	3,3′-bis(1-cyclohexylethyl)-5,5′-dimethyldiphenylmethane-2,2′-diol				
	FUS		29.29	400.7	DTA	[1972INO/LIA]
$C_{31}H_{47}F_{17}O$	[1240205-74-6]	1-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]heneicosane				
	FUS		63.13	331.3	DSC	[2010ZAG/CON]
$C_{31}H_{48}$	[55319-81-8]	1-(1-decylundec-1-enyl)naphthalene				
	V	(499–567)	105.1	514	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{48}O_2S_2$	[23288-49-5]	4,4′-[propane-2,2-diylbis(thio)]bis(2,6-di-*tert*-butylphenol) (probucol)				
	FUS		34.52	399.2	DSC	[2015GAU/VAN]
	FUS		29.4	399.5	DSC	[2015NUR/BOO]
	FUS		34.22	400	DSC	[2010BAI/VAN]
$C_{31}H_{52}O_2$	[1180-43-4]	Cholesteryl α-methylpropionate				

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	FUS		25.2	400.7	DSC	[1981YAN/NAB]
$C_{31}H_{52}O_3$	[58-95-7]	α-tocopherol acetate				
	V	(466–524)	60.1 ± 1.3	496	Static	[1988BAG/GUR]
$C_{31}H_{56}$	[55373-96-1]	1,1-bis(decahydro-1-naphthyl)undecane				
	V	(525–561)	110.5	540	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{56}$	[61828-06-6]	Pentacosylbenzene				
	V	(472–741)	117.5	487		[1999DYK/SVO]
$C_{31}H_{56}$	[6006-90-2]	13-phenylpentacosane				
	V	(495–560)	106.7	510	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{60}$	[55320-00-8]	1-(1-decylundecyl)decahydronaphthalene				
	V	(523–560)	107	538	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{58}N_6O_9$	[326813-24-5]	Caproylamide deferoxamine				
	FUS		119.2	450.1	DSC	[2000IHN/VEN]
$C_{31}H_{62}$	[18435-54-6]	1-hentriacontene				
	V	(468–730)	117.7	483		[1999DYK/SVO]
$C_{31}H_{62}$	[61828-10-2]	Pentacosylcyclohexane				
	V	(472–741)	116.6	487		[1999DYK/SVO]
$C_{31}H_{62}$	[6697-15-0]	13-cyclohexylpentaconsane				
	V	(495–560)	106.7	510	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{62}O$	[502-73-8]	16-hentricontanone				
	FUS		117.1	356.4	DSC	[1994NAK/TAK]
$C_{31}H_{62}O_2$	[36617-47-7]	Tetradecyl heptadecanoate				
	FUS		101.39	319.9	DSC	[2011AYD/OKU2]
$C_{31}H_{64}$	[1560-72-1]	2-methyltriacontane				
	V	(468–726)	118.8	483		[1999DYK/SVO]
$C_{31}H_{64}$	[55320-06-4]	11-decylheneicosane				
	FUS		71.13	282.3		[1996DOM/HEA, 1945FIS/NAY]
	V	(298–313)	110.9	305	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{31}H_{64}$	[630-04-6]	Hentriacontane				
	TRS		27.53	334.7		
	FUS		81.86	341.3	DSC	[2016BOU/DJE]
	TRS		1.9	327.1		
	TRS		30.8	337.1		
	FUS		72.4	341.1	DSC	[1999GIL]
	V	(534–565)	157.3	298	CGC	[2004CHI/HAN2]
	V	(433–474)	146 ± 2	450	TE	[1994PIA/FON]
	V	(503–732)	113.8	518	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{31}H_{64}S$	[5340-24-9]	1-hentriacontanethiol				
	V	(494–759)	125.7	509	E	[1999DYK/SVO]
$C_{32}H_2Br_{16}N_8$	[28746-04-5]	Hexadecabromophthalocyanine				
	SUB	(438–493)	109.2 ± 16.3	453	ME	[1987STE/MAL, 1970BON/CAT]
$C_{32}H_2Cl_{16}N_8$	[28888-81-5]	Hexadecachlorophthalocyanine				
	SUB	(398–443)	141.0 ± 17.6	413	ME	[1987STE/MAL, 1970BON/CAT]
$C_{32}H_{14}$	[190-26-1]	Ovalene				
	TRS		8.08	729		
	FUS		17.4	770.1		[1980SMI]
	SUB		211.7 ± 7.9	600	ME	[1952INO/SHI]
$C_{32}H_{18}N_8$	[574-93-6]	β-29*H*,31*H*-phthalocyanme				
	SUB	(633–773)	201.5 ± 0.1		TGA	[2013SHA/SHT]
	SUB	(598–698)	223.8 ± 1.3		ME	[2000SEM/BAS]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{32}H_{28}N_2$	[138171-14-9]	*N*,*N*′-diphenyl-*N*,*N*′-di-p-tolylbenzene-1,4-diamine				
	FUS		44.0	463.5	DSC	[2013COS/SAN]
	SUB	(439–458)	178.4 ± 0.5	450	ME	[2013COS/SAN]
	SUB	(439–458)	180.2 ± 1.6	298	ME	[2013COS/SAN]
$C_{32}H_{30}N_2O_6P_2$	[382596-16-9]	*N*,*N*′-[1,3-phenylenebis(methylene)]bis(phosphoramide acid) *P*,*P*,*P*′,*P*′-tetraphenyl ester				
	FUS		41.69	383.1	DSC	[2014DU/WAN]
$C_{32}H_{34}$	[116422-69-6]	1,8-bis(4-biphenyl)octane				
	FUS		56	415.2	DSC	[1989MAL/KAN]
$C_{32}H_{34}$	[116422-70-9]	1,8-bis[4-(4′-ethylbiphenyl)]butane				
	FUS		46	454.2	DSC	[1989MAL/KAN]
$C_{32}H_{38}N_4$	[1154424-99-3]	1,4-bis((1-benzylpiperidin-4-ylimino)methyl)benzene				
	FUS		38.7	427.2	DSC	[2008STI/CIN]
$C_{32}H_{38}O_6$	[99022-53-4]	Hexa-2,4-diyne-1,6-diyl-bis(4-hexyloxybenzoate)				
	FUS		49.27	334.2	DSC	[1990BEL/BAL]
$C_{32}H_{39}ClO_3$	[71203-42-4]	Norethindrone-6-(4-chlorophenyl)hexanoate				
	FUS		28.8	413	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{32}H_{41}F_{25}$	[89109-72-8]	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosofluorodotriacontane				
	TRS		4.1	250		
	TRS		7.1	308		
	FUS		58.5	373	DSC	[1988HOP/PUG]
	FUS		43.4	369.2	DSC	[1986RUS/RAB]
$C_{32}H_{41}NO_2$	[50679-08-8]	α-[4-(1,1-dimethylethyl)phenyl]-4-(hydroxydiphenylmethyl)-1-piperidinebutanol (terfenadine)				
	FUS		42.4	423.2	DSC	[2010MUR/PIK2]
	FUS		58.1	422.8	DSC	[2007BER/WAS]
$C_{32}H_{44}O_7$	[126544-47-6]	Ciclesonide				
	FUS		25.0	478.4	DSC	[2015NUR/BOO]
$C_{32}H_{45}NO_5$	[171018-29-4]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxopropoxy)-6,14-ethenomorphinan-7-methanol				
	FUS		27.1	410.2	DSC	[1995STI/DUA]
$C_{32}H_{48}O_3$		(*Z*)-9-octadecen-1-yl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		31.5	278.2	DSC	[1994WEB/MEY]
$C_{32}H_{48}O_3$		(*E*)-9-octadecen-1-yl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		74.2	309.4	DSC	[1994WEB/MEY]
$C_{32}H_{50}$	[85668-75-3]	2,4,5,7-tetramethyl-4,5-bis(4-*tert*-butylphenyl)-octane				
	SUB		182.8		E, B	[1983KRA/BEC]
$C_{32}H_{50}$	[85668-73-1]	4,5-diethyl-4,5-bis(4-*tert*-butylphenyl)-octane				
	SUB		182.4		E, B	[1983KRA/BEC]
$C_{32}H_{50}O_3$		Octadecyl 2-(6-methoxy-2-naphthyl)propionate				
	FUS		82.0	334.2	DSC	[1994WEB/MEY]
$C_{32}H_{52}N_6O_9$	[105185-40-8]	Benzoylamide deferoxamine				
	FUS		107	453.8	DSC	[2000IHN/VEN]
$C_{32}H_{58}$	[13024-80-1]	Hexacosylbenzene				
	V	(478–749)	119.6	493		[1999DYK/SVO]
$C_{32}H_{60}O_2$	[37608-12-1]	5,5,9,9,17,17,21,21-octamethylcyclotetracosane-1,13-dione				
	FUS		32.6	380.2		[1972BOR/DAL2]
$C_{32}H_{63}NO_3$	[154957-72-9]	Pentadecanoic acid, 2-[(1-oxopentadecyl)amino]ethyl ester				
	FUS		84.9		DSC	[2010KAM/TAR]
$C_{32}H_{64}$	[18435-55-7]	1-dotriacontene				
	V	(474–738)	119.8	489		[1999DYK/SVO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{32}H_{64}$	[61828-11-3]	Hexacosylcyclohexane				
	V	(478–749)	118.6	493		[1999DYK/SVO]
$C_{32}H_{64}O_2$	[7505-12-6]	Ethyl triacontanoate				
	TRS		33.7	334.7		
	FUS		75.0	341.5	Cryst	[1996DOM/HEA, 1934KIN/GAR]
$C_{32}H_{64}O_2$	[17661-50-6]	Tetradecyl octadecanoate				
	FUS		106.7	322.8	DSC	[2011AYD/OKU]
$C_{32}H_{64}O_2$	[540-10-3]	Hexadecyl hexadecanoate				
	FUS		104.6	324.4	DSC	[2012AYD/AYD]
$C_{32}H_{64}O_2$	[3234-81-9]	Octadedcyl tetradecanoate				
	FUS		97.87	322.1	DSC	[2013AYD]
$C_{32}H_{64}O_4$	[56444-67-8]	2,2,6,6,10,10,14,14,18,18,22,22-dodecamethyl-1,3,13,15-tetraoxacyclotetracosane				
	FUS		39.7	342.5		[1975BOR]
$C_{32}H_{64}O_{16}$	[71092-61-0]	48-crown-16				
	FUS		59.1	312.2	DSC	[1996YAN/YU]
$C_{32}H_{66}$	[55401-55-3]	11-decyldocosane				
	V	(523–559)	108.7	538	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{32}H_{66}$	[544-85-4]	Dotriacontane				
	TRS		27.1	340.3		
	FUS		74.4	344.0	DSC	[2012PLA/KOT]
	TRS		43.7	339.2		
	FUS		78.0	342.5	DSC	[2005VEN/CUE]
	TRS		40.59	339.1		
	FUS		79.74	341.9	DSC	[2003TOZ/INA]
	TRS		41.9	340.7		
	FUS		75.7	343.2	DSC	[1999GIL]
	TRS		42.7	338.9		
	FUS		76.0	342.1	DSC	[1983CHA/MAU]
	TRS		41.38	338.7		
	FUS		76.57	343.5		[1996DOM/HEA, 1973COM]
	SUB		271.1 ± 2.5			[1970COX/PIL]
	V	(534–565)	162.5	298	CGC	[2004CHI/HAN2]
	V	(437–477)	147 ± 1	456	TE	[1994PIA/FON]
	V	(361–395)	130.5	376	A	[1987STE/MAL]
	V	(510–741)	116	535	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{32}H_{66}$	[55401-54-2]	9-octyltetracosane				
	V	(501–563)	114.8	516	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{32}H_{66}$	[1720-12-3]	2-methylhentriacontane				
	V	(474–735)	120.9	489		[1999DYK/SVO]
$C_{32}H_{66}O$	[4113-12-6]	17-oxatritriacontane				
	FUS		109.7	326.2	DSC	[2014HAS/JIR]
	TRS		10.46	323.2		
	FUS		116.73	324.7	DSC	[2004TYA/BIS]
$C_{32}H_{66}S$	[66256-05-1]	1-dotriacontanethiol				
	V	(499–766)	127.5	514	E	[1999DYK/SVO]
$C_{33}H_{34}N_4O_6$	[123524-52-7]	((3-[1-(diphenylmethyl)-3-azetidinyl]-5-(1-methylethyl-2-amino-1,4-dihydro-6-methyl-4-(3-nitrophenyl)-3,5-pyridinecarboxylate (azelnidipine)))				
	FUS (I)		13.1	402.3		
	FUS (II)		48.4	472.2	DSC	[2012LI/YAN]
$C_{33}H_{34}O_3$	[71203-40-2]	Norethindrone-biphenyl-4-carboxylate				
	FUS		31.6	462	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{33}H_{40}O_3$	[71203-41-3]	Norethindrone-4-cyclohexybenzoate				

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	FUS		36.8	482	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{33}H_{46}O_4$	[128805-69-6]	17β-4-heptoxybenzoyloxy testosterone				
	FUS		22.0	373	DSC	[1990YAN/EIR]
$C_{33}H_{47}NO_5$	[171018-30-7]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-α-methyl-(1-methoxyoxobutoxy)-6,14-ethenomorphinan-7-methanol				
	FUS		32.4	422.1	DSC	[1995STI/DUA]
$C_{33}H_{48}O_3$	[71203-38-8]	Norethindrone-*trans*-3-(4-butylcyclohexyl)propionate				
	FUS		22.5	374	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{33}H_{48}O_3$	[71203-37-7]	Norethindrone-*trans*-hexylcyclohexylcarboxylate				
	FUS		22.6	398	DSC	[1996DOM/HEA, 1979LEW/ENE]
$C_{33}H_{50}O_6P_2$	[26741-53-7]	bis(2,4-di-*trans*-butylphenyl)phosphiterythritol diphosphite				
	FUS		41.51	448.15	DSC	[2016YOU/WAN]
$C_{33}H_{54}N_6O_9$	[326813-28-9]	Phenylacetamide deferoxamine				
	FUS		119	447.7	DSC	[2000IHN/VEN]
$C_{33}H_{54}O_6$	[3319-31-1]	Tri(2-ethylhexyl)trimellitate				
	V	(331–371)	81.1	346	ME	[2000LIA/MA]
$C_{33}H_{54}O_6$	[27251-75-8]	Triisooctyltrimellitate				
	V	(331–372)	79.0	346	ME	[2000LIA/MA]
$C_{33}H_{60}$	[61828-25-9]	Heptacosylbenzene				
	V	(484–756)	121.5	499		[1999DYK/SVO]
$C_{33}H_{62}N_6O_9$	[99899-52-2]	Octanoylamide deferoxamine				
	FUS		130.7	455.3	DSC	[2000IHN/VEN]
$C_{33}H_{62}O_6$	[621-71-6]	Glycerol tricaprate				
	V		130.5	411	TGA	[1990KIS/SHO]
	V		154.6 ± 5.4	298	TGA	[1990KIS/SHO]
	V	(437–485)	124.6	452	A	[1987STE/MAL]
$C_{33}H_{64}N_2O_2S$	[1383435-49-1]	1,3-dihexadecanoyl thiourea				
	FUS		82.3	325.2	DSC	[2011ALK/TEK]
$C_{33}H_{64}O_4$	[69341-23-7]	Neopentyl glycol dimyristate				
	FUS		55.8	294.1	DSC	[2013SAR/ALK]
$C_{33}H_{66}$	[61828-12-4]	Heptacosylcyclohexane				
	V	(484–757)	120.6	499		[1999DYK/SVO]
$C_{33}H_{66}$	[61868-11-9]	1-tritriacontene				
	V	(480–746)	121.8	495		[1999DYK/SVO]
$C_{33}H_{66}O_2$	[36610-48-7]	Tetradecyl nonadecanoate				
	FUS		100.57	323.4	DSC	[2011AYD/OKU2]
$C_{33}H_{66}O_3$	[13784-52-6]	Dihexadecyl carbonate				
	FUS		101.6	316.3	DSC	[2012KEN]
	FUS		111.8	316.3	DSC	[2010KEN]
$C_{33}H_{68}$	[630-05-7]	Tritriacontane				
	TRS		0.2	336.6		
	TRS		26.6	341.2		
	FUS		83.1	344.8	DSC	[1999GIL]
	FUS		105.02	344	Rad. Calor.	[1996DOM/HEA, 1932SPA/THO]
	FUS		105.0	344.3		[1929PAR/TOD]
	V	(534–565)	167.6	298	CGC	[2004CHI/HAN2]
	V	(438–480)	148 ± 1	458	TE	[1994PIA/FON]
	V	(517–749)	118	532	A, E	[1987STE/MAL, 1966KUD/ZWO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{33}H_{68}$	[1720-11-2]	2-methyldotriacontane				
	V	(480–743)	122.9	495		[1999DYK/SVO]
$C_{33}H_{68}S$	[66214-20-8]	1-tritriacontanethiol				
	V	(504–773)	129.1	519	E	[1999DYK/SVO]
$C_{34}H_{16}O_2$	[116-71-2]	Dibenzanthrone (violanthrone)				
	SUB	(513–548)	208.8	528		[1987STE/MAL]
	SUB		202.9	542	ME	[1951INO]
$C_{34}H_{16}O_2$	[128-64-3]	Isodibenzanthrone (isoviolanthrone)				
	SUB	(523–553)	221.1	538		[1987STE/MAL]
	SUB		215.5	537	ME	[1951INO]
$C_{34}H_{18}$	[81-31-2]	Violanthrene				
	SUB		223.8 ± 8.8	590	ME	[1952INO/SHI, 1960JON]
$C_{34}H_{18}$	[188-87-4]	Violanthrene A (mp 478 °C) (anthra[9,1,2-cde]benzo[rst]pentaphene)				
	SUB	(562–724)	195.8	653	ME	[1967WAK/INO]
$C_{34}H_{18}$	[190-93-2]	Violanthrene B (mp 330 °C)				
	SUB	(555–625)	153.5	590	ME	[1967WAK/INO]
[Note: This entry is likely the original reference for benzo[rst]phenanthro[1,10,9-cde]pentaphene listed in [1987STE/MAL]. Chemical abstracts cites [1967WAK/INO] as reporting the heat of sublimation for benzo[rst]phenanthro[1,10,9-cde]pentaphene.]						
$C_{34}H_{18}$	[190-93-2]	Benzo[rst]phenanthro[1,10,9-cde]pentaphene				
	SUB	(478–603)	154.1	493	A	[1987STE/MAL]
$C_{34}H_{18}$	[4430-29-9]	Isoviolanthrene A (mp 510 °C)				
	SUB	(588–724)	218	590	ME	[1952INO/SHI, 1960JON]
$C_{34}H_{18}$	[191-79-7]	Tetrabenzo[de,hi,op,st]pentacene				
	SUB	(348–448)	118.5	363		[1987STE/MAL]
	SUB	(350–450)	118	400	ME	[1967WAK/INO]
$C_{34}H_{24}$	[751-38-2]	1,2,3,4-tetraphenylnaphthalene				
	SUB	(430–448)	150.9 ± 0.4	439	ME	[2012LIM/ROC]
	SUB	(430–448)	154.2 ± 0.8	298	ME	[2012LIM/ROC]
$C_{34}H_{24}$	[82777-02-4]	1,8-bis[(1,1′-biphenyl)-4-yl]naphthalene				
	SUB	(454–473)	174.8 ± 0.6	464	ME	[2012LIM/ROC]
	SUB	(454–473)	178.5 ± 1.1	298	ME	[2012LIM/ROC]
$C_{34}H_{31}ClN_2O_3$	[119887-41-1]	Spiro[isobenzofuran-1(3*H*),9′ (9*H*)-7′-chloro-6′-(methylcyclohexylamino)-3′-methyl-2′-anilinoxanthene]-3-one				
	FUS		49.0	442.2	DSC	[1988NAK/KIT]
$C_{34}H_{32}N_2O_3$	[55250-84-5]	Spiro[isobenzofuran-1(3*H*),9′ (9*H*)-6′-(methylcyclohexylamino)-3′-methyl-2′-anilinoxanthene]-3-one				
	FUS		39.9	476.2	DSC	[1988NAK/KIT]
$C_{34}H_{38}$	[116422-71-0]	1,6-bis[4-(4′-ethylbiphenyl)]hexane				
	TRS		3.9	393.2		
	FUS		35	422.2	DSC	[1989MAL/KAN]
$C_{34}H_{49}NO_5$	[171018-31-8]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxopentoxy)-6,14-ethenomorphinan-7-methanol				
	FUS		24.0	379.1	DSC	[1995STI/DUA]
$C_{34}H_{52}N_2O_4$	[32687-78-8]	*N*,*N*′-bis[3-(3,5-di-*tert*-butyl-4-hydroxyphenyl)propionyl]hydrazine				
	TRS		19.47	474.1		
	FUS		41.5	503	DSC	[2008COG/HIL]
$C_{34}H_{54}$	[85668-72-0]	4,5-dipropyl-4,5-bis(4-*tert*-butylphenyl)-octane				
	FUS		40.58	419	DSC	[1983KRA/BEC]
	SUB		198.3		E,B	[1983KRA/BEC]
$C_{34}H_{54}O_8S_2$	[849904-11-6]	2,2′-[butane-1,4-diylbis(oxy)]bis(5-nonylbenzenesulfonic acid]				
	FUS		26.0	422.3	DSC	[2009XIE/YAN]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{34}H_{62}$	[61828-26-0]	Octacosylbenzene				
	V	(490–764)	123.4	505		[1999DYK/SVO]
$C_{34}H_{66}O_4$	[2432-88-4]	Didodecyl sebacate				
	V		131 .9	420	TGA	[1990KIS/SHO]
	V		154.5 ± 5.4	298	TGA	[1990KIS/SHO]
$C_{34}H_{67}NO_3$	[55349-67-2]	Hexadecanoic acid, 2-[(1-oxohexadecyl)amino]ethyl ester				
	FUS		110.5	363.1	DSC	[2010KAM/TAR]
$C_{34}H_{68}$	[61828-13-5]	Octacosylcyclohexane				
	V	(490–764)	122.4	505		[1999DYK/SVO]
$C_{34}H_{68}$	[61868-12-0]	1-tetratriacontene				
	V	(486–754)	123.7	501		[1999DYK/SVO]
$C_{34}H_{68}$	[87292-56-6]	17-tetratriacontene				
	TRS		33.47	332.8		
	FUS		51.46	334.3	DSC	[2004TYA/BIS]
$C_{34}H_{68}N_2O_2$	[5518-18-3]	*N*,*N*′-1,2-ethanediylbis(hexadecanamide)				
	FUS		80.9	325.7	DSC	[2011ALK/CAN]
$C_{34}H_{68}N_2O_2$	[61261-68-5]	*N*,*N*′-1,6-hexanediylbis(tetradecanamide)				
	FUS		62.8	320.2	DSC	[2010CAN/ALK]
$C_{34}H_{68}O_2$	[22413-04-3]	Tetradecyl eicosonate				
	FUS		102.5	326.0	DSC	[2011AYD/OKU]
$C_{34}H_{68}O_2$	[1190-63-2]	Hexadecyl octadecanoate				
	FUS		109.0	327.8	DSC	[2012AYD/AYD]
$C_{34}H_{68}O_2$	[2598-99-4]	Octadecyl hexadecanoate				
	FUS		111.83	330.5	DSC	[2013AYD]
$C_{34}H_{68}O_{17}$	[109635-68-9]	51-crown-17				
	FUS		66.6	301.2	DSC	[1996YAN/YU]
$C_{34}H_{70}$	[55429-84-0]	11-decyltetracosane				
	V	(537–574)	113.1	552	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{34}H_{70}$	[55429-83-9]	9-octylhexacosane				
	V	(537–575)	110.3	552	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{34}H_{70}$	[14167-59-0]	Tetratriacontane				
	TRS		0.41	342.8		
	TRS		46.65	343.5		
	FUS		95.64	346.1	DSC	[2006WAN/TOZ]
	TRS		46.9	343.1		
	FUS		82.9	345.8	DSC	[2005VEN/CUE]
	TRS		36.5	343.2		
	FUS		72.0	346.4	DSC	[1999GIL]
	TRS		48.0	342.7		
	FUS		79.9	346.0		[1973COM]
	TRS		48.03	341.1		
	FUS		79.96	345.6		[1996DOM/HEA, 1931GAR/VAN]
	V	(534–565)	172.7	298	CGC	[2004CHI/HAN2]
	V	(446–497)	152 ± 2	471	TE	[1994PIA/FON]
	V	(372–402)	149.7	387	A	[1987STE/MAL]
	V	(523–756)	120.3	538	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{34}H_{70}$	[66214-27-5]	2-methyltritriacontane				
	V	(486–750)	124.8	501		[1999DYK/SVO]
$C_{34}H_{70}S$	[66214-28-6]	1-tetratriacontanethiol				
	V	(509–780)	130.7	524	E	[1999DYK/SVO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{35}H_{28}Cl_2N_8O_4$	[84625-61-6]	4-[4-[4-[4-[[2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]phenyl]-2,4-dihydro-2-(1-methylpropyl)-3*H*-1,2,4-triazol-3-one(itraconazole)				
	FUS		57.57	441	DSC	[2010BAI/VAN]
	FUS		69.9	438.6	DSC	[2007BER/WAS]
$C_{35}H_{37}N_3$	[500362-45-8]	4-butylphenyl-[6-(4-butylphenyl)methyl-9-methyl-9*H*-carbazol-3-ylmethylene)]amine				
	FUS		29.6	460.2	DSC	[2002BEL/MAN]
$C_{35}H_{37}N_3O_2$	[500362-50-5]	4-butoxyphenyl-[6-(4-butoxyphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine				
	FUS		34.4	475.2	DSC	[2002BEL/MAN]
$C_{35}H_{50}N_2O_8$	[874908-00-6]	2-methylacrylic acid 11-[4-(6,7,9,10,12,13,15,16-octahydro-5,8,11,14,17-pentaoxabenzocyclopentadecen-2-ylazo)phenoxy]undecyl ester				
	FUS		48.7	379.7	DSC	[2005NIS/WAT]
$C_{35}H_{51}NO_5$	[171018-32-9]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxohexyloxy)-6,14-ethenomorphinan-7-methanol				
	FUS		22.6	352.6	DSC	[1995STI/DUA]
$C_{35}H_{56}N_2O_9S$	[1432661-12-5]	Valnemulin hydrogen fumarate				
	FUS		25,06	408.5	DSC	[2015OUY/WAN]
$C_{35}H_{64}$	[56247-97-3]	15-phenylnonacosane				
	V	(523–550)	126.5	536	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{35}H_{64}$	[61828-27-1]	Nonacosylbenzene				
	V	(495–771)	125.4	510		[1999DYK/SVO]
$C_{35}H_{66}O_5$	[1130761-31-7]	18-oxopentatriacontanedioic acid				
	FUS		115	400.7		
	FUS		102	395.6	DSC	[2009YAM/TES]
$C_{35}H_{68}O_4$	[818-21-3]	1,3-propanediol, dipalmitate				
	FUS		133	329.8	DSC	[2007ABE/BOU]
$C_{35}H_{70}$	[61828-14-6]	Nonacosylcyclohexane				
	V	(495–771)	124.4	510		[1999DYK/SVO]
$C_{35}H_{70}$	[61868-13-1]	1-pentatriacontene				
	V	(492–761)	125.5	507		[1999DYK/SVO]
$C_{35}H_{70}$	[55521-27-2]	15-cyclohexylnonacosane				
	V	(548–581)	129	563	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{35}H_{70}O$	[504-53-0]	18-pentatriacontanone				
	FUS		126	361.6	DSC	[2009YAM/TES]
$C_{35}H_{72}$	[630-07-9]	Pentatriacontane				
	FUS		135	347.5	DSC	[2009YAM/TES]
	TRS		41.09	344.7		
	FUS		86.4	347.2		[1996DOM/HEA]
	V	(534–565)	178	298	CGC	[2004CHI/HAN2]
	V	(529–764)	122.4	544	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{35}H_{72}$	[14167-65-8]	2-methyltetratriacontane				
	V	(491–758)	126.9	506		[1999DYK/SVO]
$C_{35}H_{72}S$	[66576-86-1]	1-pentatriacontanethiol				
	V	(514–787)	132.2	529	E	[1999DYK/SVO]
$C_{36}H_{18}$	[191-48-0]	Decacyclene				
	FUS		25.4	666		[1980SMI]
$C_{36}H_{24}$	[7059-70-3]	1,3,5-tri-alpha-naphthylbenzene				
	FUS		42.26	472		[1967MAG]
$C_{36}H_{28}N_2$	[15546-43-7]	*N*,*N*,*N*′,*N*′-tetraphenylbiphenyl-4,4′-diamine				
	FUS		46.2	504.6	DSC	[2013COS/SAN]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	SUB	(481–501)	195.1 ± 0.5	491	ME	[2013COS/SAN]
	SUB	(481–501)	198.5 ± 2.0	298	ME	[2013COS/SAN]
$C_{36}H_{30}N_3O_6P_3$	[1184-10-7]	Hexaphenoxycyclotriphosphazene				
	FUS		51.07	387.11	DSC	[2012JIA/WAN, 2011TIA/WAN2]
$C_{36}H_{32}N_2O_4$	[158547-46-7]	3,3′,4,4′-biphenyltetracarboxy-*N*,*N*′-bis(4-*n*-butylphenyl)diimide				
	TRS		33.5	537.9		
	FUS		8.4	556.3	DSC	[1995EIS/DEN]
$C_{36}H_{42}$	[116422-72-1]	1,8-bis[4-(4′-ethylbiphenyl)]octane				
	TRS		8.4	402.2		
	FUS		42	413.2	DSC	[1989MAL/KAN]
$C_{36}H_{42}$	[116445-91-1]	1,4-bis[4-(4′-*n*-butylbiphenyl)]butane				
	TRS (liq cryst)		12	404.2		
	TRS (liq cryst-to-liq)		24	464.2	DSC	[1989MAL/KAN]
$C_{36}H_{44}N_2S_4$	[109537-97-5]	bis[4-(5-heptyl-2-thienylmethylidenamino)phenyl]disulfide				
	FUS		36.1	356.2	DTA	[1978KOS/BUD]
$C_{36}H_{46}N_4$	[2683-82-1]	2,3,7,8,12,13,17,18-octaethyl-21*H*,23*H*-porphine				
	FUS		37.97	616.2	DSC	[2011DEC/MAH]
$C_{36}H_{46}O_4$	[92341-28-1]	4,4′-didecanoyloxydiphenyldiacetylene				
	TRS		44.9	308		
	FUS		42.2	403	DSC	[1996DOM/HEA, 1984OZC/ASR]
$C_{36}H_{53}NO_5$	[171018-33-0]	17-(cyclopropylmethyl)-α-(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-6-methoxy-α-methyl-(1-oxoheptyloxy)-6,14-ethenomorphinan-7-methanol				
	FUS		19.3	360	DSC	[1995STI/DUA]
$C_{36}H_{54}O_{12}$	[65201-68-5]	Benzene hexa-*n*-pentanoate				
	TRS	(13–390)	8.8	173.1		
	TRS	(13–390)	15.3	313.2		
	TRS	(13–390)	1.4	349.9		
	FUS	(13–390)	30.3	379.5	AC	[2001ASA/SOR]
$C_{36}H_{58}O_4$	[5956-67-2]	Lup-20(29)-ene-3,28-diol, dipropanoate(betulin dipropionate)				
	FUS		33	436.8	DSC	[2014DRE/MIK]
$C_{36}H_{60}O_6$	[53894-23-8]	Triisononanyltrimellitate				
	V	(334–372)	102.2	349	ME	[2000LIA/MA]
$C_{36}H_{62}O_4$	[2915-60-8]	Ditetradecyl phthalate				
	V	(416–465)	126	431	T	[1987STE/MAL, 1949PER/WEB]
$C_{36}H_{62}O_4$	[175848-69-8]	2,5-di-*n*-pentadecyloxy-1,4-benzoquinone				
	TRS		21.7	385.9		
	FUS		101.7	393.5	DSC	[1996KEE/VAN]
$C_{36}H_{62}O_4$	[39262-14-1]	20-*O*-β-D-glycopyranosyl-20(S)-protopanaxadiol				
	FUS		18.88	451.2	DSC	[2012LI/YAN]
$C_{36}H_{66}$	[50715-02-1]	Triacontylbenzene				
	V	(501–778)	127	516		[1999DYK/SVO]
$C_{36}H_{70}O_4$	[26719-63-1]	1,4-butanediol dipalmitate				
	FUS (92 % crystalline)		106.6	335.2		
	FUS (100 % crystalline)		115.7	335.2	DSC	[2013CAB/BOG]
	FUS		162.4	339	DSC	[2008ZHA/WUM]
$C_{36}H_{71}NO_3$	[154957-71-8]	Heptadecanoic acid, 2-[(1-oxoheptadecyl)amino]ethyl ester				
	FUS		106.7	364.4	DSC	[2010KAM/TAR]
$C_{36}H_{72}$	[61868-14-2]	1-hexatriacontene				

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	V	(497–768)	127.4	512		[1999DYK/SVO]
$C_{36}H_{72}$	[61828-15-7]	Triacontylcyclohexane				
	V	(500–778)	126.3	515		[1999DYK/SVO]
$C_{36}H_{72}O_2$	[22413-05-4]	Hexadecyl eicosanoate				
	FUS		121.6	332.5	DSC	[2012AYD/AYD]
$C_{36}H_{72}O_2$	[2778-96-3]	Octadecyl octadecanoate				
	FUS		115.41	332.4	DSC	[2013AYD]
$C_{36}H_{72}O_{18}$	[71092-62-1]	54-crown-18				
	FUS		81.6	317.2	DSC	[1996YAN/YU]
$C_{36}H_{74}$	[630-06-8]	Hexatriacontane				
	TRS		11.73	347.3		
	TRS		24.72	348.3		
	FUS		81.6	350.2	DSC	[2006KHI/BOU]
	TRS		0.47	343.6		
	TRS		15.02	348.8		
	TRS		28.52	347.1		
	FUS		102.51	349.2	DSC	[2006WAN/TOZ]
	TRS		49.2	346.0		
	FUS		173.5	348.8	DSC	[2005VEN/CUE]
	TRS		30.3	347		
	FUS		87.6	349	DSC	[2004MAR/KAI]
	TRS	(80–370)	10.1	345.4		
	TRS	(80–370)	32.1	346.8		
	FUS	(80–370)	87.5	348.9	AC	[1999WAN/TAN]
	TRS		43.4	347.2		
	FUS		89.0	349.4	DSC	[1999GIL]
	TRS		15.3	345.1		
	TRS		31.6	346.9		
	FUS		86.0	348.7	DSC	[1991JIN/WUN]
[Note: Authors of Ref. [1991JIN/WUN] reported that only the last two transition enthalpies and temperatures did not on crystallization change from the melt.]						
	TRS		9.9	345.3		
	TRS		30.5	347.1		
	FUS		130.7	349.2		[1973COM]
	TRS		9.92	345.4		
	TRS		30.54	347.1		
	FUS		88.83	349.2	AC	[1996DOM/HEA, 1955SCH/BUS]
	V	(534–565)	182.8	298	CGC	[2004CHI/HAN2]
	V	(452–516)	157 ± 2	484	TE	[1994PIA/FON]
	V	(535–571)	124.4	550	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{36}H_{74}$	[55517-89-0]	13-undecylpentacosane				
	V	(548–580)	132.9	563	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{36}H_{74}$	[66576-73-6]	2-methylpentatriacontane				
	V	(497–765)	128.7	512		[1999DYK/SVO]
$C_{36}H_{74}$	[67309-30-2]	18-methylpentatriacontane				
	FUS		99.0	325.2	DSC	[2005IKE/YAM]
$C_{36}H_{74}O$	[6297-03-6]	19-oxaheptatriacontane				
	FUS		106.7	333.2	DSC	[2014HAS/JIR]
	TRS		10.88	333.2		
	FUS		105.86	335.3	DSC	[2004TYA/BIS]
$C_{36}H_{74}O_{18}$		1,ω-dimethoxyheptadeca(oxyethylene)				
	FUS		136.6	301.2	DSC	[1996YAN/YU]
$C_{36}H_{74}S$	[66577-23-9]	1-hexatriacontanethiol				

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	V	(518–793)	134	533	E	[1999DYK/SVO]
$C_{36}H_{75}N$	[102-87-4]	Tridodecylamine				
	V	(579–807)	82.1	594	A	[1987STE/MAL]
$C_{37}H_{48}N_4O_5$	[192725-17-0]	Lopinavir				
	FUS		28.4	365.2	DSC	[2015NUR/BOO]
$C_{37}H_{48}N_6O_5S_2$	[155213-67-5]	2,4,7,12-tetraazatridecan-13-oic acid, 10-hydroxy-2-methyl-5-(1-methylethyl)-1-[2-(1-methylethyl)-4-thiazolyl]-3,6-dioxo-8,11-bis(phenylmethyl)-, 5-thiazolylmethyl ester (ritonavir)				
	FUS		67.6	394.1	DSC	[2015NUR/BOO]
	FUS		65.34	399	DSC	[2010BAI/VAN]
	FUS		57.9	395.5		[2002ZHO/ZHA]
$C_{37}H_{52}O_4$	[129108-06-1]	3β-*n*-octyloxy-17β-butyoxybenzoyloxy estradiol				
	FUS		27.0	332	DSC	[1990YAN/EIR]
$C_{37}H_{68}$	[61828-28-2]	Hexatriacontylbenzene				
	V	(506–785)	128.8	521		[1999DYK/SVO]
$C_{37}H_{68}O_8$	[7299-99-2]	Pentaerythritol tetra-2-ethylhexanoate				
	V	(355–443)	126.4	370		[2007RAZ/MOK]
$C_{37}H_{70}O_6$	[30283-10-4]	1-caprylic-2-lauryl-3-myristic glycerol				
	V	(464–526)	131.7	479	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{37}H_{72}O_4$	[69341-24-8]	Neopentyl glycol dipalmitate				
	FUS		71.9	308.1	DSC	[2013SAR/ALK]
$C_{37}H_{74}$	[61828-16-8]	Hentriacontylcyclohexane				
	V	(505–785)	128.1	520		[1999DYK/SVO]
$C_{37}H_{74}$	[61868-15-3]	1-heptatriacontene				
	V	(502–775)	129.2	517		[1999DYK/SVO]
$C_{37}H_{74}O_3$	[5346-14-5]	Dioctadecyl carbonate				
	FUS		115.1	328.3	DSC	[2012KEN]
	FUS		126.3	319.6	DSC	[2010KEN]
$C_{37}H_{76}$	[7194-84-5]	Heptatriacontane				
	V	(534–565)	187.5	298	CGC	[2004CHI/HAN2]
	V	(471–511)	155 ± 2	491	TE	[1994PIA/FON]
	V	(541–778)	126.4	556	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{37}H_{76}$	[66577-06-8]	2-methylhexatriacontane				
	V	(502–772)	130.5	517		[1999DYK/SVO]
$C_{37}H_{76}S$	[66577-07-9]	1-heptatriacontanethiol				
	V	(523–799)	135.3	538	E	[1999DYK/SVO]
$C_{38}H_{30}$	[18909-18-7]	1-diphenylmethylene-4-triphenylmethyl-2,5-cyclohexadiene				
	SUB	(348–394)	114.6	363	A	[1987STE/MAL]
$C_{38}H_{30}O_2$	[596-30-5]	bis(triphenylmethyl)peroxide				
	SUB	(392–434)	158.1	407	A	[1987STE/MAL]
$C_{38}H_{32}N_2$	[65181-78-4]	4,4′-bis[*N*-(3-methylphenyl)-*N*-phenylamino]biphenyl				
	FUS		40.4	442.2		[2013COS/SAN]
$C_{38}H_{50}O_4$	[71332-86-0]	4,4′-diundecanoyloxydiphenyldiacetylene				
	TRS		18.1	339		
	TRS		7.59	359		
	FUS		36.2	399	DSC	[1996DOM/HEA, 1984OZC/ASR]
$C_{38}H_{58}O_6S$	[41484-35-9]	3,5-bis(1,1-dimethylethyl)4-hydroxybenzenepropanoic acid, 1,1′-(thiodi-2,1-ethanediyl) ester				
	FUS (I)		49.09	340.6		
	FUS (II)		48.80	350.5	DSC	[2015ZHA/OUY]
$C_{38}H_{62}$	[85668-76-4]	5,6-dibutyl-5,6-bis(4-*tert*-butylphenyl)-decane				

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	FUS		43.1	386	DSC	[1983KRA/BEC]
	SUB		220.9		E, B	[1983KRA/BEC]
$C_{38}H_{67}NO_{10}$	[150785-53-8]	8,9-didehydro-*N*-demethyl-9-deoxo-4″,6,12-trideoxy-6,9-epoxy-*N*-ethylerythromycin				
	FUS		36.7	434.9		[2002ZHO/ZHA]
$C_{38}H_{68}N_2O_2$	[312952-55-9]	*N*,*N*′-dihexadecanoylbenzene-1,2-diamine				
	TRS		78	367.2		
	FUS		32		DSC	[2000AKU/IUC]
$C_{38}H_{68}O_4$	[118476-26-9]	2,5-di-*n*-hexadecyloxy-1,4-benzoquinone				
	TRS	6.8		357.7		
	TRS	14.1		370.9		
	TRS	19.0		389		
	FUS	83		394.2	DSC	[1996KEE/VAN]
$C_{38}H_{68}S_8$	[105782-51-2]	2-[4,5-bis(octylthio)-1,3-dithiol-2-ylidene]-4,5-bis(octylthio)-1,3-dithiole				
	TRS	(10–330)	0.16	94.3		
	TRS	(10–330)	4.92	215.8		
	FUS	(10–330)	89.3	322.5	AC	[1997TAN/ATA]
$C_{38}H_{69}NO_{13}$	[81103-11-9]	(3*R*,4*S*,5*S*,6*R*,7*R*,9*R*,11*S*,12*R*,13*S*,14*S*)-6-{[(2*S*,3*R*,4*S*,6*R*)-4-(dimethylamino)-3-hydroxy-6-methyloxan-2-yl]oxy}-14-ethyl-12,13-dihydroxy-4-{[(2*R*,4*S*,5*S*,6*S*)-5-hydroxy-4-methoxy-4,6-dimethyloxan-2-yl]oxy}-7-methoxy-3,5,7,9,11,13-hexamethyl-1-oxacyclotetradecane-2,10-dione (clarithromycin)				
	FUS		45.5	498.9	DSC	[2014AGA/MOS]
	FUS		54.1	500.9	DSC	[2009RAJ/MIS]
$C_{38}H_{70}$	[61828-29-3]	Dotriacontylbenzene				
	V	(511–791)	130.4	526		[1999DYK/SVO]
$C_{38}H_{74}O_4$	[26719-47-1]	Ditetradecyl sebacate				
	FUS		120.3	324.0	DSC	[2012AYD]
	V		142.8	440	TGA	[1990KIS/SHO]
	V		170.6 ± 5.9	298	TGA	[1990KIS/SHO]
	V	(431–483)	135.5	446	A, T	[1987STE/MAL, 1949PER/WEB]
$C_{38}H_{75}NO_3$	[14351-40-7]	Octadecanoic acid, 2-[(1-oxooctadecyl)amino]ethyl ester				
	FUS		122.2	367.8	DSC	[2010KAM/TAR]
$C_{38}H_{76}$	[61828-17-9]	Dotriacontylcyclohexane				
	V	(510–792)	129.8	525		[1999DYK/SVO]
$C_{38}H_{76}$	[61868-16-4]	1-octatriacontene				
	V	(507–782)	131	522		[1999DYK/SVO]
$C_{38}H_{76}$	[62978-78-3]	19-octatriacontene				
	TRS		7.53	321		
	TRS		34.31	338.4		
	FUS		66.53	340.8	DSC	[2004TYA/BIS]
$C_{38}H_{76}N_2O_2$	[343933-17-5]	*N*,*N*′-1,6-hexanediylbis(hexadecanamide)				
	FUS		85.7	332.5	DSC	[2010CAN/ALK]
$C_{38}H_{76}O_2$	[22432-79-7]	Octadecyl eicosanoate				
	FUS		127.76	338.1	DSC	[2013AYD]
$C_{38}H_{78}$	[7194-85-6]	Octatriacontane				
	V	(534–565)	192.6	298	CGC	[2004CHI/HAN2]
	V	(471–511)	160 ± 2	491	TE	[1994PIA/FON]
	V	(546–785)	128.5	561	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{38}H_{78}$	[66576-92-9]	2-methylheptatriacontane				
	V	(507–779)	132.2	522		[1999DYK/SVO]
$C_{38}H_{78}S$	[66576-93-0]	1-octatriacontanethiol				
	V	(527–805)	136.7	542	E	[1999DYK/SVO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{39}H_{45}N_3O_2$	[500362-51-6]	4-hexyloxyphenyl-[6-(4-hexyloxyphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine				
	FUS		25.4	459.2	DSC	[2002BEL/MAN]
$C_{39}H_{72}$	[55517-74-3]	17-phenyltritriacontane				
	V	(544–571)	147.1	557	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{39}H_{72}$	[61828-30-6]	Tritriacontylbenzene				
	V	(516–798)	132	531		[1999DYK/SVO]
$C_{39}H_{74}O_6$	[538-24-9]	Glycerol trilaurate				
	FUS		118.03	319.7	DSC	[2016CAR/CON]
	FUS		116.45	319.39	DSC	[2014MAX/COS, 2016CAR/CON]
	FUS		114.22	319.55		[1982OLL/PER, 2016CAR/CON]
	FUS		123.51	319.5		[1996DOM/HEA, 1947CHA/SIN]
	V		221.1		TGA	[2002GOO/GEL]
	V		147.1	438	TGA	[1990KIS/SHO]
	V		180.0 ± 6.3	298	TGA	[1990KIS/SHO]
	V	(458–520)	137.6	473	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{39}H_{76}O_4$	[17367-44-1]	1,3-propanediol, distearate				
	FUS		110	329.8	DSC	[2007ABE/BOU]
$C_{39}H_{78}$	[61868-17-5]	1-nontriacontene				
	V	(512–788)	132.5	527		[1999DYK/SVO]
$C_{39}H_{78}$	[61828-18-0]	Triatriacontylcyclohexane				
	V	(515–798)	131.4	530		[1999DYK/SVO]
$C_{39}H_{78}$	[55517-75-4]	17-cyclohexyltritricontane				
	V	(570–602)	131.9	585	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{39}H_{78}O$	[22986-70-5]	20-nonatricontanone				
	FUS		147.2	365.8	DSC	[2000NAK/SHI]
	FUS		153	365.6	DSC	[1994NAK/TAK]
$C_{39}H_{80}$	[7194-86-7]	Nonatriacontane				
	V	(552–791)	130.3	567	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{39}H_{80}$	[66576-59-8]	2-methyloctatriacontane				
	V	(512–785)	133.8	527		[1999DYK/SVO]
$C_{39}H_{80}$	[857685-80-4]	18-butylpentatriacontane				
	FUS		104	318.5	DSC	[2005IKE/YAM]
$C_{39}H_{80}S$	[66576-60-1]	1-nonatriacontanethiol				
	V	(531–811)	138.1	546	E	[1999DYK/SVO]
$C_{40}H_{38}N_4O_4$	[130048-21-4]	bis(4-*n*-butyl-1′-diazophenyl)isophthalate				
	FUS		16.0	469.2	DSC	[1990JIN/KAN]
$C_{40}H_{40}N_2O_4$	[158547-48-9]	3,3′,4,4′-biphenyltetracarboxy-*N*,*N*′-bis(4-*n*-hexylphenyl)diimide				
	TRS (liq cryst)		19.9	432.4		
	TRS (liq cryst)		26.2	513.8		
	TRS (liq cryst-to-liq)		9.5	563.3	DSC	[1995EIS/DEN]
$C_{40}H_{46}O_8$	[161282-95-7]	6,7,9,10,12,13,15,16,18,19-decahydro-32,35-dimethoxy-31*H*-4,21-(methano[1,3]benzenomethano)-26,30-metheno-25*H*-dibenzo[q,z]-[1,4,7,10,13,16]hexaoxacycloheptacosin				
	SUB			82 ± 2	ME	[2008SUR]
$C_{40}H_{48}N_2O_2S_2$	[1620387-53-2]	*N*,*N*′-[dithiobis(6,1-hexanediyloxy-4,1-phenylenemethylidyne)]bis[4-methylbenzenamine]				
	FUS		74.8	393.7	DSC	[2014YEA/OSM]
$C_{40}H_{50}$	[116422-73-2]	1,8-bis[4-(4′-*n*-butylbiphenyl)]octane				
	TRS (liq cryst)		13.0	398.2		
	TRS (liq cryst-to-liq)		27.0	414.2	DSC	[1989MAL/KAN]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{40}H_{54}O_4$	[92341-29-2]	4,4′-didodecanoyloxydiphenyldiacetylene				
	TRS		50.2	374		
	FUS		44.0	401	DSC	[1996DOM/HEA, 1984OZC/ASR]
$C_{40}H_{56}$	[7235-40-7]	β-carotene				
	FUS		56.0	456		[2003TRE/KAS]
$C_{40}H_{70}O_{13}$	[76185-96-1]	Dipentaerythritol hexapentanoate				
	V	(393–534)		168.7 ± 2.1		[2011GAR/NAC]
$C_{40}H_{72}O_4$	[175848-70-1]	2,5-di-heptadecyloxy-1,4-benzoquinone				
	TRS		13.0	383.6		
	FUS		120.9	395.3	DSC	[1996KEE/VAN]
$C_{40}H_{74}$	[61828-31-7]	Tetratriacontylbenzene				
	V	(520–804)	133.8	535		[1999DYK/SVO]
$C_{40}H_{78}O_4$	[42234-77-5]	Ditetradecyl 1,12-dodecanedioate				
	FUS		139.3	328.1	DSC	[2012AYD]
$C_{40}H_{78}O_4$	[33587-21-2]	1,4-butanediol distearate				
	FUS (93 % crystalline)		115.9	331.2		
	FUS (100 % crystalline)		124.0	331.2	DSC	[2013CAB/BOG]
	FUS		113.4	315	DSC	[2007LI/DIN]
$C_{40}H_{79}NO_3$	[154957-70-7]	Nonadecanoic acid, 2-[(1-oxononadecyl)amino]ethyl ester				
	FUS		118.4	368.0	DSC	[2010KAM/TAR]
$C_{40}H_{80}$	[61868-18-6]	1-tetracontene				
	V	(517–794)	134	532		[1999DYK/SVO]
$C_{40}H_{80}$	[61828-19-1]	Tetratriacontylcyclohexane				
	V	(520–804)	132.9	535		[1999DYK/SVO]
$C_{40}H_{82}$	[4181-95-7]	Tetracontane				
	TRS		2.51	345		
	TRS		8.6	347.7		
	FUS		143.94	354.6	DSC	[2006WAN/TOZ]
	FUS		121.1	353.2	DSC	[2005VEN/CUE]
	TRS		14.02	345.4		
	FUS		133.44	353.2	DSC	[1992LOU/ROU]
	V	(323–523)	203.5 ± 0.2	298	CGC	[2008CHI/WAN]
	V	(557–798)	132.2	572	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{40}H_{82}$	[66576-48-5]	2-methylnonatricontane				
	V	(517–791)	135.3	532		[1999DYK/SVO]
$C_{40}H_{82}$	[304457-95-2]	20-methylnonatriacontane				
	FUS		120	331.4	DSC	[2004YAM/NEM]
[Note: The DSC curve showed no solid–solid phase transition in the temperature range of T = 300 K to T = 360 K.]						
$C_{40}H_{82}S$	[66576-49-6]	1-tetracontanethiol				
	V	(535–817)	139.6	550	E	[1999DYK/SVO]
$C_{41}H_{44}N_2O_9$	[832684-74-9]	3,3′-di(*N*-cyclopropylmethyl)-4,5-epoxy-14-hydroxymorphinan-6-one–3-yl)carbonate				
	FUS		17.5	490.6	DSC	[2004HAM/HAM]
$C_{41}H_{76}$	[61828-32-8]	Pentatriacontylbenzene				
	V	(525–810)	135.2	540		[1999DYK/SVO]
$C_{41}H_{76}O_8$	[41058-87-1]	3,5,5-trimethylhexanoic acid, 2,2-bis[[(3,5,5-trimethyl-1-oxohexyl)oxy]-methyl]-1,3-propanediyl ester				
	FUS		51.3	304		[1996PYD/VAR]
$C_{41}H_{82}$	[66576-37-2]	1-hentetracontene				
	V	(521–800)	135.8	536		[1999DYK/SVO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{41}H_{82}$	[61828-20-4]	Pentatriacontylcyclohexane				
	V	(524–810)	134.5	539		[1999DYK/SVO]
$C_{41}H_{84}$	[7194-87-8]	Hentetracontane				
	FUS		176.2	355.1	DSC	[2016BOU/DJE]
	TRS + FUS		149.2	354.3	DSC	[2003BRI/BOU]
	FUS		134.5	357.5	DSC	[2000PAU/MEH]
	V	(562–804)	134.1	577	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{41}H_{84}$	[66576-38-3]	2-methyltetracontane				
	V	(521–797)	137.1	536		[1999DYK/SVO]
$C_{41}H_{84}$	[857685-81-5]	18-hexylpentatricontane				
	FUS		107	314	DSC	[2005IKE/YAM]
$C_{41}H_{84}S$	[66576-39-4]	1-hentetracontanethiol				
	V	(539–822)	140.8	554	E	[1999DYK/SVO]
$C_{42}H_{28}$	[517-51-1]	5,6,11,12-tetraphenyltetracene				
	SUB	(453–523)	160.6 ± 4.2	488		[1958HOY/PEP, 1970COX/PIL]
$C_{42}H_{30}$	[992-04-1]	Hexaphenylbenzene				
	SUB		175.5 ± 2.1	298	ME	[2011LIM/ROC]
	SUB	(573–643)	195 ± 6		TGA	[2011MAL/GAG]
$C_{42}H_{33}N_3$	[126717-23-5]	1,3,5-tris(diphenylamino)benzene				
	FUS		62.1	526.3	DSC	[2013COS/SAN]
	SUB	(471–511)	198.3 ± 0.4	493	ME	[2013COS/SAN]
	SUB	(471–511)	200.8 ± 2.0	298	ME	[2013COS/SAN]
$C_{42}H_{36}O_{24}S_6$	[102088-39-1]	4-sulfonato-calix[6]arene				
	FUS		242.2	534.8	DSC	[2005YAN/MAN]
$C_{42}H_{44}N_2O_4$	[158547-49-0]	3,3′,4,4′-biphenyltetracarboxy-*N*,*N*′-bis(4-*n*-heptylphenyl)diimide				
	TRS (liq cryst)		18.8	411		
	TRS (liq cryst)		24.7	504.9		
	TRS (liq cryst-to-liq)		11.1	560.8	DSC	[1995EIS/DEN]
$C_{42}H_{52}N_2O_2S_2$	[1620387-54-3]	*N*,*N*′-[dithiobis(6,1-hexanediyloxy-4,1-phenylenemethylidyne)]bis[4-ethylbenzenamie]				
	FUS		52.6	373.9	DSC	[2014YEA/OSM]
$C_{42}H_{52}N_2O_4S_2$	[109537-98-6]	1,2-bis[4-(5-octyl-2-thienylmethylidenamino)phenylcarboxyloxy]ethane				
	FUS		57.4	369.2	DTA	[1978KOS/BUD]
$C_{42}H_{61}NO_4$	[425406-53-7]	2,7-dihexyloxy-9-(3,5-dihexyloxyphenyl)carbazole				
	FUS		41.02	350.2	DSC	[2002PER/LOP]
$C_{42}H_{66}O_{12}$	[65201-69-6]	Benzene-hexa-*n*-hexanoate				
	TRS	(13–393)	25.67	251.6		
	TRS	(13–393)	12.27	291.5		
	TRS	(13–393)	16.26	348.3		
	FUS	(13–393)	33.5	368.7	AC	[1996DOM/HEA, 1980SOR/TSU]
$C_{42}H_{78}$	[61828-33-9]	Hexatriacontylbenzene				
	V	(529–815)	129	544		[1999DYK/SVO]
$C_{42}H_{82}O_4$	[26719-48-2]	Dihexadecyl sebacate				
	V		149.8	460	TGA	[1990KIS/SHO]
	V		183.8 ± 6.4	298	TGA	[1990KIS/SHO]
$C_{42}H_{82}O_4$	[42234-41-3]	Ditetradecyl 1,14-tetradecanedioate				
	FUS		134.8	330.6	DSC	[2012AYD]
$C_{42}H_{83}NO_3$	[1213779-61-3]	Eicosanoic acid, 2-[(1-oxoeicosyl)amino]ethyl ester				
	FUS		140.6	371.9	DSC	[2010KAM/TAR]
$C_{42}H_{84}$	[21807-60-3]	1-dotetracontene				
	V	(526–806)	137.1	541		[1999DYK/SVO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{42}H_{84}$	[61828-21-5]	Hexatriactonylcyclohexane				
	V	(529–816)	135.8	544		[1999DYK/SVO]
$C_{42}H_{86}$	[7098-20-6]	Dotetracontane				
	TRS		2.11	344.6		
	TRS		8.46	348.6		
	FUS		165.97	357.3	DSC	[2006WAN/TOZ]
	V	(323–523)	213.5	298	CGC	[2008CHI/WAN]
	V	(567–810)	136	582	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{42}H_{86}$	[66576-40-7]	2-methylhentetracontane				
	V	(526–803)	138.5	541		[1999DYK/SVO]
$C_{42}H_{86}$	[55470-97-8]	2,2,4,15,17,17-hexamethyl-7,12-bis(3,5,5-trimethylhexyl)octadecane				
	V	(512–575)	118.3	527	A, MG	[1987STE/MAL, 1955SCH/WHI]
$C_{42}H_{86}S$	[66576-41-8]	1-dotetracontanethiol				
	V	(543–828)	142.1	558	E	[1999DYK/SVO]
$C_{42}H_{87}N$	[27911-72-4]	Tritetradecylamine				
	V	(609–848)	86.6	624	A	[1987STE/MAL]
$C_{43}H_{32}$	[1202852-27-4]	2-methyl-3′,4′,5′,6′-tetraphenyl-1,2′:2′,1″-terphenyl				
	SUB	(573–643)	180 ± 9		TGA	[2011MAL/GAG]
$C_{43}H_{53}N_3$	[500362-46-9]	4-octylphenyl-[6-(4-octylphenyl)methyl-9-methyl-9*H*-carbazol-3-ylmethylene)]amine				
	FUS		33.1	425.2	DSC	[2002BEL/MAN]
$C_{43}H_{80}$	[66576-74-7]	Heptatriacontylbenzene				
	V	(533–821)	138.3	548		[1999DYK/SVO]
$C_{43}H_{86}$	[66576-75-8]	Heptatriacontylcyclohexane				
	V	(533–821)	137.4	548		[1999DYK/SVO]
$C_{43}H_{86}$	[66576-76-9]	1-tritetracontene				
	V	(530–812)	138.7	545		[1999DYK/SVO]
$C_{43}H_{88}$	[66576-76-9]	Tritetracontane				
	V	(572–820)	137.7	587	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{43}H_{88}$	[66576-77-0]	2-methyldotetracontane				
	V	(530–809)	140	545		[1999DYK/SVO]
$C_{43}H_{88}S$	[66576-78-1]	1-tritetracontanethiol				
	V	(547–833)	143.2	562	E	[1999DYK/SVO]
$C_{44}H_{26}Br_4N_4$	[68772-71-4]	5,10,15,20-tetrakis(3-bromophenyl)porphine				
	SUB		204 ± 4		GS	[2000PER/GOL]
$C_{44}H_{26}Br_4N_4$	[29162-73-0]	5,10,15,20-tetrakis(4-bromophenyl)porphine				
	SUB		135 ± 4		GS	[2000PER/GOL]
$C_{44}H_{26}Cl_4N_4$	[22112-77-2]	5,10,15,20-tetrakis(4-chlorophenyl)porphine				
	SUB		311 ± 5		GS	[2000PER/GOL]
$C_{44}H_{26}F_4N_4$	[27185-62-2]	5,10,15,20-tetrakis(2-fluorophenyl)porphine				
	SUB		225 ± 8		GS	[2000PER/GOL]
$C_{44}H_{26}F_4N_4$	[37095-43-5]	5,10,15,20-tetrakis(4-fluorophenyl)porphine				
	SUB		178 ± 4		GS	[2000PER/GOL]
$C_{44}H_{30}N_4$	[917-23-7]	5,10,15,20-tetraphenylporphine				
	FUS		38.4	726.2	DSC	[2011DEC/MAH]
	FUS		44.2	723.5	DSC	[2010GAM/CAM]
	SUB	(626–707)	142 ± 3		F	[2004STE/STI]
	SUB	(543–555)	171 ± 2	550	ME	[2002TOR/CAM]
	SUB		240 ± 7		GS	[2000PER/GOL]
	SUB (I)	(560–630)	267 ± 9			[1994GOL/PER]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	SUB (II)		185 ± 10			[1994GOL/PER]
	SUB	(588–678)	110.9 ± 5.0	603	ME	[1987STE/MAL, 1970BON/CAT]
$C_{44}H_{34}$	[1202852-28-5]	2,6-dimethyl-3′,4′,5′,6′-tetraphenyl-1,2′:2′,1″-terphenyl				
	SUB	(573–643)	169 ± 5		TGA	[2011MAL/GAG]
$C_{44}H_{48}N_2O_4$	[158547-50-3]	3,3′,4,4′-biphenyltetracarboxy-*N*,*N*′-bis(4-*n*-octylphenyl)diimide				
	TRS (liq cryst)		36.1	428.5		
	TRS (liq cryst)		21.3	499.2		
	TRS (liq cryst-to-liq)		8.5	553.5	DSC	[1995EIS/DEN]
$C_{44}H_{56}O_4$	[60705-62-6]	4-*tert*-butylcalix[4]arene				
	SUB		U378 ± 35		ME	[2011SUR/VOR]
$C_{44}H_{63}N_3O_2$	[583032-62-6]	2-[3,5-bis[4-(dodecyloxy)phenyl]-1*H*-pyrazol-1-yl]pyridine				
	FUS		47.3	344.2	DSC	[2003MAY/TOR]
$C_{44}H_{80}O_4$	[175848-72-3]	2,5-di-*n*-nonadecyloxy-1,4-benzoquinone				
	TRS		16.2	385.5		
	FUS		134	396.2	DSC	[1996KEE/VAN]
$C_{44}H_{82}$	[66576-79-2]	Octatriacontylbenzene				
	V	(537–826)	139.7	552		[1999DYK/SVO]
$C_{44}H_{88}$	[66576-80-5]	Octatriacontylcyclohexane				
	V	(537–827)	138.7	552		[1999DYK/SVO]
$C_{44}H_{88}$	[66576-81-6]	1-tetratetracontene				
	V	(534–818)	140.1	549		[1999DYK/SVO]
$C_{44}H_{90}$	[7098-22-8]	Tetratetracontane				
	FUS		138.1	358.5	DSC	[2005VEN/CUE]
	FUS		145.5	360.9	DSC	[1995HAM/MEH]
[Note: Authors of [1995HAM/MEH] refer to the value as the total transition enthalpy.]						
	TRS		18.2	347.7		
	FUS		152.9	358.8	DSC	[1991JIN/WUN]
[Note: Authors of [1991JIN/WUN] reported that only the last transition enthalpy and temperature did not change on crystallization from the melt.]						
	V	(323–523)	223.7 ± 0.9	298	CGC	[2008CHI/WAN]
	V		146	387		[1973IVA/GUJ]
	V	(577–821)	139.3	592	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{44}H_{90}$	[66576-82-7]	2-methyltritetracontane				
	V	(534–815)	141.5	549		[1999DYK/SVO]
$C_{44}H_{90}S$	[66576-83-8]	1-tetratetracontanethiol				
	V	(551–838)	144.1	566	E	[1999DYK/SVO]
$C_{45}H_{39}N_3$	[138143-23-4]	1,3,5-tris[(3-methylphenyl)phenylamino]benzene				
	FUS		50.3	455.8	DSC	[2013COS/SAN]
$C_{45}H_{84}$	[66576-61-2]	Nontriacontylbenzene				
	V	(541–832)	141	556		[1999DYK/SVO]
$C_{45}H_{86}O_6$	[60138-25-2]	(*dl*)-1-lauric-2-myristic-3-palmitic glycerol				
	V	(491–551)	147.8	506	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{45}H_{86}O_6$		(*dl*)-1-myristic-2-capric-3-stearic glycerol				
	V	(490–551)	148.4	505	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{45}H_{86}O_6$	[555-45-3]	Glycerol trimyristate				
	FUS		141.97	330.90	DSC	[2014MAX/COS]
	FUS		111 .6	305.2	DSC	[2010SAR/BIC]
	FUS		153.4	326.5	DSC	[2007HIM/MAC]
[Note: The value reported by [2007HIM/MAC] based on crystallization with a cooling scan rate of 0.1 K/min.]						
	FUS		152.2	330.2		[1996DOM/HEA, 1947CHA/SIN]
	V		199.05		TGA	[2002GOO/GEL]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
	V		155.8	469	TGA	[1990KIS/SHO]
	V		199.2 ± 6.9	298	TGA	[1990KIS/SHO]
	V	(488–551)	147.8	503	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{45}H_{90}$	[66576-62-3]	Nonatriacontylcyclohexane				
	V	(541–832)	140.1	556		[1999DYK/SVO]
$C_{45}H_{90}$	[66576-63-4]	1-pentatetracontene				
	V	(538–823)	141.5	553		[1999DYK/SVO]
$C_{45}H_{92}$	[7098-23-9]	Pentatetracontane				
	V	(582–827)	141	597	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{45}H_{92}$	[66576-64-5]	2-methyltetratetracontane				
	V	(538–820)	142.9	553		[1999DYK/SVO]
$C_{45}H_{92}S$	[66576-65-6]	1-pentatetracontanethiol				
	V	(554–843)	145.6	569	E	[1999DYK/SVO]
$C_{46}H_{32}N_2$	[500615-71-4]	4,4′-bis[2-(1-pyrenyl)ethyl]-2,2′-bipyridine				
	FUS		52.1	506.2	DSC	[2011DEC/MAH]
$C_{46}H_{86}$	[66576-67-8]	Tetracontylbenzene				
	V	(545–837)	142.3	560		[1999DYK/SVO]
$C_{46}H_{90}O_4$	[3072-03-5]	Dioctadecyl sebacate				
	V		157.5	480	TGA	[1990KIS/SHO]
	V		197.7 ± 6.9	298	TGA	[1990KIS/SHO]
$C_{46}H_{92}$	[66576-68-9]	1-hexatetracontene				
	V	(542–828)	142.8	557		[1999DYK/SVO]
$C_{46}H_{92}$	[66576-69-0]	Tetracontylcyclohexane				
	V	(545–837)	141.3	560		[1999DYK/SVO]
$C_{46}H_{94}$	[7098-24-0]	Hexatetracontane				
	TRS		23.9	341.4		
	FUS		156.6	360.7	DSC	[2003BRI/BOU]
	V	(323–523)	233.3	298	CGC	[2008CHI/WAN]
	V	(586–832)	142.8	601	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{46}H_{94}$	[66564-10-1]	2-methylpentatetracontane				
	V	(542–826)	144.2	557		[1999DYK/SVO]
$C_{46}H_{94}S$	[66564-11-2]	1-hexatetracontanethiol				
	V	(557–847)	146.7	572	E	[1999DYK/SVO]
$C_{47}H_{64}N_4O_{12}$	[61379-65-5]	3-[[(4-cyclopentyl-1-piperazinyl)imino]methyl]-2,7-(epoxypentadeca[1,11,13]trienimino)-naphtho[2,1-*b*]furan (rifamycin)				
	FUS		10.68	446.4	DSC	[2010ZHO/LI]
$C_{47}H_{88}$	[66564-12-3]	Hentetracontylbenzene				
	V	(549–842)	143.5	564		[1999DYK/SVO]
$C_{47}H_{90}O_6$		(*dl*)-1-myristic-2-lauric-3-stearic glycerol				
	V	(493–558)	150.5	508	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{47}H_{90}O_6$		(*dl*)-1-palmitic-2-capric-3-stearic glycerol				
	V	(507–559)	154.8	522	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{47}H_{94}$	[66564-13-4]	Hentetracontylcyclohexane				
	V	(548–842)	142.8	563		[1999DYK/SVO]
$C_{47}H_{94}$	[66576-01-0]	1-heptatetracontene				
	V	(546–833)	143.9	561		[1999DYK/SVO]
$C_{47}H_{96}$	[7098-25-1]	Heptatetracontane				
	V	(591–837)	144.2	606	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{47}H_{96}$	[66576-02-1]	2-methylhexatetracontane				
	V	(546–831)	145.3	561		[1999DYK/SVO]

TABLE 15. Phase change enthalpies of C_{30} to C_{49} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mole)	T_m (K)	Method	Reference
$C_{47}H_{96}S$	[66576-03-2]	1-heptatetracontanethiol				
	V	(561–852)	147.6	576	E	[1999DYK/SVO]
$C_{48}H_{38}N_4$	[37083-40-2]	5,10,15,20-tetrakis(2-methylphenyl)porphine				
	SUB		159 ± 5		GS	[2000PER/GOL]
$C_{48}H_{38}N_4$	[50849-45-1]	5,10,15,20-tetrakis(3-methylphenyl)porphine				
	SUB		177 ± 5		GS	[2000PER/GOL]
$C_{48}H_{38}N_4$	[14527-51-6]	5,10,15,20-tetrakis(4-methylphenyl)porphine				
	SUB		178 ± 3		GS	[2000PER/GOL]
$C_{48}H_{38}N_4O_4$	[22112-78-3]	5,10,15,20-tetrakis(4-methoxyphenyl)porphine				
	SUB	(561–565)	213 ± 12	563	ME	[2002TOR/CAM]
$C_{48}H_{40}P_2$	[100165-87-5]	2,2′-bis(di-4-toluenephosphino)-1,1′-binaphthyl				
	FUS	(80–660)	41.98	528.3	AC, DSC	[1997ZHA/GAO]
$C_{48}H_{66}N_6O_6$	[88122-99-0]	4,4′,4″-(1,3,5-triazine-2,4,6-triyltriimino)tris(benzoic acid), 1,1′,1″-tris(2-ethylhexyl) ester				
	FUS		55.2	397.3	DSC	[2010ROD/CRI]
$C_{48}H_{90}$	[66576-04-3]	Dotetracontylbenzene				
	V	(552–846)	144.9	567		[1999DYK/SVO]
$C_{48}H_{94}O_4$	[61682-72-2]	1,4-butanediol dibehenate				
	FUS (97 % crystalline)		153.7	347.2		
	FUS (100 $ crystalline)		158.0	347.2	DSC	[2013CAB/BOG]
$C_{48}H_{96}$	[66576-05-4]	Dotetracontylcyclohexane				
	V	(552–847)	143.9	567		[1999DYK/SVO]
$C_{48}H_{96}$	[66576-06-5]	1-octatetracontene				
	V	(549–838)	145.4	564		[1999DYK/SVO]
$C_{48}H_{96}$	[36355-90-5]	Cycloctatetracontane				
	FUS		140	359	DSC	[1987DRO/MOL]
	FUS		136.2	362.4	DSC	[1987DRO/EME]
$C_{48}H_{98}$	[7098-26-2]	Octatetracontane				
	V	(323–523)	243.0 ± 0.2	298	CGC	[2008CHI/WAN]
	V	(595–843)	145.9	610	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{48}H_{98}$	[66576-07-6]	2-methylheptatetracontane				
	V	(550–836)	146.5	565		[1999DYK/SVO]
$C_{48}H_{98}S$	[66576-08-7]	1-octatetracontanethiol				
	V	(564–856)	148.7	579	E	[1999DYK/SVO]
$C_{49}H_{92}$	[66576-09-8]	Tritetracontylbenzene				
	V	(556–851)	145.9	571		[1999DYK/SVO]
$C_{49}H_{94}O_6$		(*dl*)-1-palmitic-2-lauryl-3-stearic glycerol				
	V	(506–567)	160	521	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{49}H_{98}$	[66576-10-1]	1-nonatetracontene				
	V	(553–843)	146.4	568		[1999DYK/SVO]
$C_{49}H_{98}$	[66576-11-2]	Tritetracontylcyclohexane				
	V	(556–852)	144.9	571		[1999DYK/SVO]
$C_{49}H_{100}$	[7098-27-3]	Nonatetracontane				
	V	(599–847)	147.5	614	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{49}H_{100}$	[66576-12-3]	2-methyloctatetracontane				
	V	(553–840)	147.9	568		[1999DYK/SVO]
$C_{49}H_{100}S$	[66576-13-4]	1-nonatetracontanethiol				
	V	(567–861)	149.7	582	E	[1999DYK/SVO]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{50}H_{94}$	[66576-14-5]	Tetratetracontylbenzene				
	V	(559–856)	147.1	574		[1999DYK/SVO]
$C_{50}H_{100}$	[63911-02-4]	1-pentacontene				
	V	(556–848)	147.8	571		[1999DYK/SVO]
$C_{50}H_{100}$	[66576-15-6]	Tetratetracontylcyclohexane				
	V	(559–856)	146.2	574		[1999DYK/SVO]
$C_{50}H_{102}$	[6596-40-3]	Pentacontane				
	FUS		185	366.9	DSC	[1995HAM/MEH]
[Note: The authors [1995HAM/MEH] refer to the value as the total transition enthalpy.]						
	FUS		170.7	365.6	DSC	[1991JIN/WUN]
	V	(323–523)	252.5 ± 0.2	298	CGC	[2008CHI/WAN]
	V	(603–852)	149	618	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{50}H_{102}$	[66576-16-7]	2-methylnonatetracontane				
	V	(557–845)	148.8	572		[1999DYK/SVO]
$C_{50}H_{102}S$	[66576-17-8]	1-pentacontanethiol				
	V	(570–865)	150.7	585	E	[1999DYK/SVO]
$C_{51}H_{69}N_3$	[500362-48-1]	4-dodecylphenyl-[6-(4-dodecylphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine				
	FUS		34.5	412.2	DSC	[2002BEL/MAN]
$C_{51}H_{96}$	[66576-18-9]	Pentatetracontylbenzene				
	V	(562–860)	148.3	577		[1999DYK/SVO]
$C_{51}H_{96}O_6$	[60138-20-7]	1-myristic-2-palmitic-3-stearic glycerol				
	V	(508–572)	157.9	523	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{51}H_{96}O_6$	[555-44-2]	Glycerol tripalmitate (tripalmitin)				
	FUS		165.88	338.98	DSC	[2014MAX/COS]
	FUS		150.1	333.7	DSC	[2010SAR/BIC]
	FUS		162.6	340.5	DSC	[2010HON/HUA]
	FUS		121	337.4	DSC	[2006LI/ROD]
	FUS (β)		177.2	339	DSC	[1999VAN/TEN]
	FUS		179.37	338.9		[1996DOM/HEA, 1947CHA/SIN]
	V		U474.3		TGA	[2002GOO/GEL]
	V		166.3	483	TGA	[1990KIS/SHO]
	V		217.1 ± 7.6	298	TGA	[1990KIS/SHO]
	V	(506–572)	160.8	521	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{51}H_{100}ClN_5$	[106486-51-5]	2,4-bis(*N*,*N*′-didodecylamino-6-chloro-l,3,5-triazine)				
	FUS		34.25	307.5	DSC	[1986LAT/HOE]
$C_{51}H_{102}$	[66576-19-0]	l-henpentacontene				
	V	(560–852)	148.6	575		[1999DYK/SVO]
$C_{51}H_{102}$	[66576-20-3]	Pentatetracontylcyclohexane				
	V	(562–861)	147.4	577		[1999DYK/SVO]
$C_{51}H_{102}N_6$	[38565-86-5]	Tris(*N*,*N*′-dioctylamino-l,3,5-triazine)				
	FUS		74.25	312.7	DSC	[1986LAT/HOE]
$C_{51}H_{104}$	[7667-76-7]	Henpentacontane				
	TRS		l.7	337		
	TRS		6.9	342.1		
	FUS		175.5	365.7	DSC	[1995TAK/URA]
	TRS		l.75	337		
	TRS		5.3	343		
	FUS		170.4	365.6	DSC	[1994NAK/TAK]
	V	(607–857)	150.6	622	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{51}H_{104}$	[66575-81-3]	2-methylpentacontane				
	V	(560–850)	150	575		[1999DYK/SVO]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{51}H_{104}S$	[66575-82-4]	l-henpentacontanethiol				
	V	(573–869)	151.6	588	E	[1999DYK/SVO]
$C_{52}H_{34}O_2$	[3432-73-3]	l,4-bis(2,4,5-triphenylcyclopentadienone-3-yl)benzene				
	FUS	(300–650)	68.8	594.4		[2005SMI/KUL]
$C_{52}H_{94}O_{13}$	[76939-66-7]	Dipentaerythritol hexaheptanoate				
	V	(473–534)	266.7 ± 19.4			[2011GAR/NAC]
$C_{52}H_{98}$	[66575-84-6]	Hexatetracontylbenzene				
	V	(566–864)	149.1	581		[1999DYK/SVO]
$C_{52}H_{98}O_8$	[124107-97-7]	Erythritol tetralaurate				
	FUS		137.4	264.2	DSC	[2013SAR/KAR]
$C_{52}H_{104}$	[66575-85-7]	1-dopentacontene				
	V	(563–857)	149.8	578		[1999DYK/SVO]
$C_{52}H_{104}$	[66575-86-8]	Hexatetracontylcyclohexane				
	V	(565–865)	148.5	580		[1999DYK/SVO]
$C_{52}H_{106}$	[7719-79-1]	Dopentacontane				
	TRS		22.1	351.8		
	FUS		185.4	366.7	DSC	[1995TAK/URA]
	TRS		17.1	352.0		
	FUS		171.8	366.7	DSC	[1994NAK/TAK]
	V	(323–523)	261.8 ± 1.5	298	CGC	[2008CHI/WAN]
	V	(611–861)	152	626	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{52}H_{106}$	[66575-87-9]	2-methylhenpentacontane				
	V	(563–854)	151.2	578		[1999DYK/SVO]
$C_{52}H_{106}O_{26}$		1,ω-dimethoxypentacosa(oxyethylene)				
	FUS		209.7	316.2	DSC	[1996YAN/YU]
$C_{52}H_{106}S$	[66575-88-0]	1-dopentacontanethiol				
	V	(575–873)	152.6	590	E	[1999DYK/SVO]
$C_{53}H_{98}O_6$		1,3-bis(hexadecanoyloxy-2-(9-*cis*-octadecenoyloxy)propane)				
	FUS		149.7	311.4		[1984PER, 1978TIM]
$C_{53}H_{100}$	[66575-89-1]	Heptatetracontylbenzene				
	V	(569–868)	150.1	584		[1999DYK/SVO]
$C_{53}H_{106}$	[66563-49-3]	Heptatetracontylcyclohexane				
	V	(568–869)	149.6	583		[1999DYK/SVO]
$C_{53}H_{106}$	[66577-50-2]	1-tripentacontene				
	V	(566–861)	150.9	581		[1999DYK/SVO]
$C_{53}H_{108}$	[7719-80-4]	Tripentacontane				
	V	(615–866)	153.4	630	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{53}H_{108}$	[66575-90-4]	2-methyldopentacontane				
	V	(566–858)	152.3	581		[1999DYK/SVO]
$C_{53}H_{108}S$	[66575-91-5]	1-tripentacontanethiol				
	V	(578–877)	153.7	593	E	[1999DYK/SVO]
$C_{54}H_{102}$	[66575-92-6]	Octatetracontylbenzene				
	V	(572–873)	151.1	587		[1999DYK/SVO]
$C_{54}H_{108}$	[66575-93-7]	Octatetracontylcyclohexane				
	V	(571–873)	150.6	586		[1999DYK/SVO]
$C_{54}H_{108}$	[66575-94-8]	1-tetrapentacontene				
	V	(569–865)	151.9	584		[1999DYK/SVO]
$C_{54}H_{108}O_{27}$	[182292-69-9]	81-crown-27				
	FUS		155.6	314.2	DSC	[1996YAN/YU]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{54}H_{110}$	[5856-66-6]	Tetrapentacontane				
	TRS		39	344.9		
	FUS		177.2	368	DSC	[2003BRI/BOU]
	V	(323–523)	271.0 ± 1.7	298	CGC	[2008CHI/WAN]
	V	(618–870)	155	633	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{54}H_{110}$	[66575-95-9]	2-methyltripentacontane				
	V	(569–863)	153.4	584		[1999DYK/SVO]
$C_{54}H_{110}S$	[66575-96-0]	1-tetrapentacontanethiol				
	V	(581–881)	154.4	596	E	[1999DYK/SVO]
$C_{55}H_{102}O_6$		2-hexadecanoyloxy-1,3-bis(9-*cis*-octadecenoyloxy)propane				
	FUS		125.5	291.9		[1984PER, 1978TIM]
$C_{55}H_{104}$	[66575-98-2]	Nontetracontylbenzene				
	V	(575–877)	152.1	590		[1999DYK/SVO]
$C_{55}H_{110}$	[66575-99-3]	Nonatetracontylcyclohexane				
	V	(574–877)	151.6	589		[1999DYK/SVO]
$C_{55}H_{110}$	[66576-00-9]	1-pentapentacontene				
	V	(572–869)	152.9	587		[1999DYK/SVO]
$C_{55}H_{112}$	[5846-40-2]	Pentapentacontane				
	V	(622–874)	156.3	637	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{55}H_{112}$	[66575-60-8]	2-methyltetrapentacontane				
	V	(572–867)	154.3	587		[1999DYK/SVO]
$C_{55}H_{110}S$	[66575-61-9]	1-pentapentacontanethiol				
	V	(584–885)	155	599	E	[1999DYK/SVO]
$C_{56}H_{48}O_{32}S_8$	[137407-62-6]	4-sulfonato-calix[8]arene				
	FUS		350.6	543.1	DSC	[2005YAN/MAN]
$C_{56}H_{78}O_8$	[122356-76-7]	2,23,28,38-tetrakis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,18,19-decahydro-32,35-dimethoxy-31*H*-4,21-(methano[1,3]benzenomethano)-26,30-metheno-25*H*-dibenzo[q,z][1,4,7,10,13,16]hexaoxacycloheptacosin				
	SUB		78 ± 1		ME	[2008SUR]
$C_{56}H_{106}$	[66575-62-0]	Pentacontylbenzene				
	V	(577–880)	153.2	592		[1999DYK/SVO]
$C_{56}H_{108}$	[66575-63-1]	1-hexapentacontene				
	V	(575–873)	154.5	588		[1999DYK/SVO]
$C_{56}H_{108}$	[66575-64-2]	Pentacontylcyclohexane				
	V	(577–881)	152.4	592		[1999DYK/SVO]
$C_{56}H_{114}$	[7719-82-6]	Hexapentacontane				
	V	(323–523)	279.7 ± 1.5	298	CGC	[2008CHI/WAN]
	V	(625–878)	157.8	640	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{56}H_{114}$	[66575-65-3]	2-methylpentapentacontane				
	V	(575–871)	155.9	588		[1999DYK/SVO]
$C_{56}H_{114}O_{28}$		1,ω-dimethoxyheptacosa(oxyethylene)				
	FUS		224.6	315.2	DSC	[1996YAN/YU]
$C_{56}H_{114}S$	[66575-66-4]	1-hexapentacontanethiol				
	V	(586–888)	156	601	E	[1999DYK/SVO]
$C_{57}H_{54}N_6O_6$	[130048-22-5]	1,3,5-tris(4-*n*-butyl-4′-diazophenyl)benzenetricarboxylate				
	FUS		11.3	443.2	DSC	[1990JIN/KAN]
$C_{57}H_{104}O_6$	[537-39-3]	1,2,3-tris(*trans*-9-octadecenoyl)glycerol (trielaidin)				
	FUS (I)		157.07	314.8	DSC	
	FUS (II)		84.2	288	DSC	[2003VAN/VAN2]
$C_{57}H_{104}O_6$	[122-32-7]	2,3-bis[[(*Z*)-octadec-9-enoyl]oxy]propyl (*Z*)-octadec-9-enoate (triolein)				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		114.6	278.6	DSC	[2015CAR/CON]
$C_{57}H_{108}$	[66575-67-5]	henpentacontylbenzene				
	V	(580–884)	154.1	595		[1999DYK/SVO]
$C_{57}H_{108}O_6$	[2846-04-0]	1,3-distearic-2-oleic glycerol				
	V	(523–593)	165.8	538	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{57}H_{110}O_6$	[555-43-1]	glycerol tristearate (tristearin)				
	FUS		115.7	346.0	DSC	[2015FRE/SAO]
	FUS (α)		115.4	328.1		
	FUS (β)′		144.8	338.5		
	FUS (β)		293.5	345.6	DSC	[2009DAS/BRE]
	FUS		133.1	336.7	DSC	[2009SAR/BIC, 2010SAR/BIC]
	FUS		196.6	334.7	DSC	[2007HIM/MAC]
[Note: Value of [2007HIM/MAC] based on crystallization measurement with a cooling scan rate of 0.1 K/min						
	FUS (I)	(10–370)	197.6	345.9	AC	
	FUS (I)		195.8	346.0	DSC	
	FUS (II)	(10–370)	129.1	327.3	AC	
	FUS (II)		114.1	327.3	DSC	[2005MAT/VAN]
	FUS		188.0	346.2	DSC	[1982OLL/PER, 2015FRE/SAO]
	FUS		203.26	345.7		[1996DOM/HEA, 1947CHA/SIN]
	V		220.8		TGA	[2002GOO/GEL]
	V		174.9	506	TGA	[1990KIS/SHO]
	V		236.2 ± 8.3	298	TGA	[1990KIS/SHO]
	V	(521–588)	167.5	536	A, T	[1987STE/MAL, 1949PER/WEB2]
$C_{57}H_{114}$	[66575-68-6]	henpentacontylcyclohexane				
	V	(580–885)	153.3	595		[1999DYK/SVO]
$C_{57}H_{114}$	[66575-69-7]	1-heptapentacontene				
	V	(578–877)	154.6	593		[1999DYK/SVO]
$C_{57}H_{116}$	[5856-67-7]	heptapentacontane				
	V	(629–882)	158.9	644	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{57}H_{116}$	[66575-70-0]	2-methylhexapentacontane				
	V	(578–875)	155.9	593		[1999DYK/SVO]
$C_{57}H_{116}S$	[66575-71-1]	1-heptapentacontanethiol				
	V	(589–892)	156.7	604	E	[1999DYK/SVO]
$C_{58}H_{110}$	[66575-73-3]	Dopentacontylbenzene				
	V	(583–888)	155.7	598		[1999DYK/SVO]
$C_{58}H_{116}$	[66575-74-4]	Dopentacontylcyclohexane				
	V	(582–888)	154.3	597		[1999DYK/SVO]
$C_{58}H_{116}$	[66575-75-5]	1-octapentacontene				
	V	(580–881)	155.8	595		[1999DYK/SVO]
$C_{58}H_{118}$	[7667-78-9]	Octapentacontane				
	V	(323–523)	288.5 ± 1.8	298	CGC	[2008CHI/WAN]
	V	(632–886)	160.3	647	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{58}H_{118}$	[66575-76-6]	2-methylheptapentacontane				
	V	(581–879)	156.8	596		[1999DYK/SVO]
$C_{58}H_{118}S$	[66575-77-7]	1-octapentacontanethiol				
	V	(591–895)	157.4	606	E	[1999DYK/SVO]
$C_{59}H_{85}N_3$	[500362-49-2]	4-hexadecylphenyl-[6-(4-hexadecylphenyl)methyl-9-methyl-9*H*-carbazol-3-yl-methylene)]amine				
	FUS		52.1	405.2	DSC	[2002BEL/MAN]
$C_{59}H_{90}N_4$	[303-98-0]	2-[(2E,6E,10E,14E,18E,22E,26E,30E,34E)-3,7,11,15,19,23,27,31,-35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaen-1-yl]-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione (ubidecarenone)				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		82	322.5	DSC	[2006LI/ROD]
$C_{59}H_{112}$	[66575-78-8]	Tripentacontylbenzene				
	V	(585–891)	155.9	600		[1999DYK/SVO]
$C_{59}H_{118}$	[66575-80-2]	Tripentacontylcyclohexane				
	V	(585–892)	155	600		[1999DYK/SVO]
$C_{59}H_{118}$	[66575-79-9]	1-nonapentacontene				
	V	(583–885)	156.4	598		[1999DYK/SVO]
$C_{59}H_{120}$	[7667-79-0]	Nonapentacontane				
	V	(635–890)	161.8	650	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{59}H_{120}$	[66575-49-3]	2-methyloctapentacontane				
	V	(583–882)	157.9	598		[1999DYK/SVO]
$C_{59}H_{120}S$	[66575-50-6]	1-nonapentacontanethiol				
	V	(593–899)	158.3	608	E	[1999DYK/SVO]
C_{60}	[99685-96-8]	Buckminsterfullerene				
	TRS		9.0	261.4	DSC	[1993DEB/DWO]
	SUB	(890–1000)	175.0 ± 0.4	945	TGA	[2015MAR/CAM]
	SUB	(890–1000)	186.3 ± 1.2	298	TGA	[2015MAR/CAM]
	SUB	(775–1033)	180 ± 2	298	ME	[2000SCH/MAT]
	SUB	(789–907)	152.8 ± 0.1	897	GS	[1998PAN/MAL]
	SUB		183.5 ± 1.0	298		[1998PAN/MAL]
	SUB		179.2 ± 3.5	298		[1996GON/SUN, 1998PAN/MAL]
	SUB	(730–990)	175.2 ± 2.9	860	ME, TE	[1995PIA/GIG]
	SUB		181 ± 2.0	298	ME, TE	[1995PIA/GIG]
	SUB		219.6		TGA	[1995YAS/TAK]
	SUB	(546–722)	180 ± 10.0	634	UV	[1994DAI/MAC]
	SUB		158 ± 3.0	700	ME	[1994POP/DRA]
	SUB		168.5 ± 1.2	298	ME	[1994POP/DRA, 1998PAN/MAL]
	SUB		181.1 ± 2.6	298	ME	[1994KOR/SID, 1998PAN/MAL]
	SUB		181.4 ± 2.3	700	MS	[1994SAI/LAK, 1992MAT/SAI]
	SUB		158.6	773	ME	[1993MAT/SAI]
	SUB		184.1 ± 3.1	298	GS	[1992PAN/CHA, 1998PAN/MAL]
	SUB		183.2 ± 3.5	298	ME	[1992MAT/SAI, 1998PAN/MAL]
	SUB		180.6 ± 1.5	298	ME	[1992ABR/OLA2, 1998PAN/MAL]
	SUB	(673–873)	159.0 ± 4.2		ME	[1992ABR/OLA2]
	SUB		>163 (powder)		TGA	[1992CHE/KOR]
	SUB	(640–800)	167.8 ± 5.4	707	ME, MS	[1991PAN/SAM]
	SUB		U138.5	600		[1991TOK/HAY]
	SUB		U90.0		ME, MS	[1990HAU/CON]
$C_{60}F_{16}$		Hexadecafluorobuckminsterfullerene				
	SUB		186 ± 9		ME,MS	[2000MAR/BOL]
$C_{60}F_{18}$	[172760-25-7]	Octadecafluorobuckminsterfullerene				
	SUB	(591–671)	197 ± 10	627	ME	[2002GIG/BAL]
$C_{60}F_{36}$		Hexatriacontylfluorobuckminsterfullerene (4 isomer average)				
	SUB	(422–525)	134 ± 6	473	MS	[1996BOL/MER]
$C_{60}F_{36}$	[150180-35-1]	Hexatriacontylfluorobuckminsterfullerene				
	SUB		139 ± 8			[2000PAP/KOL]
	SUB	(408–539)	135 ± 8.0	466	ME, MS	[1999BOL/MAR]
$C_{60}F_{42}$		Dotetracontylfluorobuckminsterfullerene				
	SUB	(430–510)	110 ± 10		ME, MS	[2000EME/NIK]
$C_{60}F_{44}$		Tetratetracontylfluorobuckminsterfullerene				
	SUB	(430–510)	112 ± 6		ME, MS	[2000EME/NIK]
$C_{60}F_{44}O$		Tetratetracontafluorotetratetracontahydro-[5,6]fullereno-C60-Ih-oxirene				
	SUB	(430–510)	111 ± 3		ME, MS	[2000EME/NIK]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{60}F_{46}$		Hexatetracontylfluorobuckminsterfullerene				
	SUB	(430–510)	114 ± 7		ME, MS	[2000EME/NIK]
$C_{60}F_{48}$	[143471-98-1]	Octatetracontylfluorobuckminsterfullerene				
	SUB	(395–528)	109 ± 7.0	476	ME, MS	[1999BOL/MAR, 2000BOL/GAL]
$C_{60}F_{48}$		Fluorinated fullerene				
	TRS	(10–355)	7	329.6		
	FUS	(10–355)	Not determined		AC	[1999DRU/GAL]
$C_{60}H_{18}$	[130797-14-7]	Octadecahydrobuckminsterfullerene				
	SUB		≥186		E	[2000KOR/DOR, 2001DOR/LOB]
$C_{60}H_{36}$	[130797-17-0]	Hexatriacontylhydrobuckminsterfullerene				
	SUB		193 ± 10	298		[2007KAR/KAB2]
	SUB	(560–680)	162 ± 5		MS	[2000KOR/DOR, 2001DOR/LOB]
	SUB		152	630		[2001DOR/LOB]
	SUB		175	298		[2001DOR/LOB]
$C_{60}H_{90}N_6O_{14}$	[155030-63-0]	Cyclo[(α*R*)-α-hydroxy-4-(4-morpholinyl)benzenepropanoyl-*N*-methyl-L-leucyl-(2*R*)-2-hydroxypropanoyl-*N*-methyl-L-leucyl-(α*R*)-α-hydroxy-4-(4-morpholinyl)benzenepropanoyl-*N*-methyl-L-leucyl-(2*R*)-2-hydroxypropanoyl-*N*-methyl-L-leucyl] (emodepside)				
	FUS		58.6	467.6	DSC	[2009BAR/BON]
$C_{60}H_{114}$	[66575-51-7]	Tetrapentacontylbenzene				
	V	(588–895)	156.6	603		[1999DYK/SVO]
$C_{60}H_{114}O_8$	[74319-77-0]	Erythritol tetramyristate				
	FUS		174.3	284.0	DSC	[2013SAR/KAR]
$C_{60}H_{120}$	[66575-52-8]	1-hexacontene				
	V	(586–888)	157.1	601		[1999DYK/SVO]
$C_{60}H_{120}$	[66575-53-9]	Tetrapentacontylcyclohexane				
	V	(587–895)	156	602		[1999DYK/SVO]
$C_{60}H_{122}$	[7667-80-3]	Hexacontane				
	FUS		186.8	373.2	DSC	[1992LOU/ROU]
	V	(323–523)	299.9 ± 2.0	298	CGC	[2008CHI/WAN]
	V	(638–893)	163	653	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{60}H_{122}$	[66575-54-0]	2-methylnonapentacontane				
	V	(586–886)	158.5	601		[1999DYK/SVO]
$C_{60}H1_{22}S$	[66575-55-1]	1-hexacontanethiol				
	V	(595–902)	159.1	610	E	[1999DYK/SVO]
$C_{61}H_{116}$	[66563-50-6]	Pentapentacontylbenzene				
	V	(590–898)	157.5	605		[1999DYK/SVO]
$C_{61}H_{122}$	[66563-51-7]	1-henhexacontene				
	V	(588–891)	158	603		[1999DYK/SVO]
$C_{61}H_{122}$	[66563-52-8]	Pentapentacontylcyclohexane				
	V	(590–899)	156.6	605		[1999DYK/SVO]
$C_{61}H_{124}$	[7667-81-4]	Henhexacontane				
	V	(642–897)	163.9	657	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{61}H_{124}$	[66563-53-9]	2-methylhexacontane				
	V	(588–889)	159.4	603		[1999DYK/SVO]
$C_{61}H_{124}S$	[66563-54-0]	1-henhexacontanethiol				
	V	(597–905)	159.6	612	E	[1999DYK/SVO]
$C_{62}H_{118}$	[66563-55-1]	Hexapentacontylbenzene				
	V	(592–902)	158.4	607		[1999DYK/SVO]
$C_{62}H_{124}$	[66563-56-2]	1-dohexacontene				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(590–895)	158.6	605		[1999DYK/SVO]
$C_{62}H_{124}$	[66563-57-3]	Hexapentacontylcyclohexane				
	V	(592–902)	157.5	607		[1999DYK/SVO]
$C_{62}H_{126}$	[7719-83-7]	Dohexacontane				
	V	(323–523)	306.8 ± 0.1	298	CGC	[2008CHI/WAN]
	V	(645–901)	165.2	660	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{62}H_{126}$	[66563-58-4]	2-methylhenhexacontane				
	V	(590–892)	160.1	605		[1999DYK/SVO]
$C_{62}H_{122}S$	[66563-59-5]	1-dohexacontanethiol				
	V	(599–908)	160.1	614	E	[1999DYK/SVO]
$C_{63}H_{120}$	[66563-60-8]	Heptapentacontylbenzene				
	V	(595–905)	158.9	610		[1999DYK/SVO]
$C_{63}H_{126}$	[66563-61-9]	Heptapentacontylcyclohexane				
	V	(594–905)	158.2	609		[1999DYK/SVO]
$C_{63}H_{126}$	[66563-62-0]	1-trihexacontene				
	V	(593–899)	159.8	608		[1999DYK/SVO]
$C_{63}H_{126}N_6$	[106486-49-1]	Tris(*N*,*N*′-didecylamino)-1,3,5-triazine				
	FUS		87.68	314.4	DSC	[1986LAT/HOE]
$C_{63}H_{128}$	[7719-84-8]	Trihexacontane				
	V	(647–904)	116.7	662	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{63}H_{128}$	[66563-63-1]	2-methyldohexacontane				
	V	(593–897)	161.3	608		[1999DYK/SVO]
$C_{63}H_{128}S$	[66563-64-2]	1-trihexacontanethiol				
	V	(602–911)	161.1	617	E	[1999DYK/SVO]
$C_{64}H_{118}O_{13}$	[127304-08-9]	Dipentaerythritol isononanoate				
	V	(473–553)	185.9 ± 2.4			[2011GAR/NAC]
$C_{64}H_{122}$	[66563-65-3]	Octapentacontylbenzene				
	V	(597–908)	159.5	612		[1999DYK/SVO]
$C_{64}H_{128}$	[66563-66-4]	Octapentacontylcyclohexane				
	V	(596–908)	158.8	611		[1999DYK/SVO]
$C_{64}H_{128}$	[66563-36-8]	1-tetrahexacontene				
	V	(595–902)	160.5	610		[1999DYK/SVO]
$C_{64}H_{130}$	[7719-87-1]	Tetrahexacontane				
	V	(323–523)	315.4 ± 0.4	298	CGC	[2008CHI/WAN]
	V	(650–907)	168.3	665	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{64}H_{130}$	[66563-37-9]	2-methyltrihexacontane				
	V	(595–900)	161.9	610		[1999DYK/SVO]
$C_{64}H_{130}S$	[66563-38-0]	1-tetrahexacontanethiol				
	V	(604–914)	161.6	619	E	[1999DYK/SVO]
$C_{65}H_{122}O_{10}$		Xylitol pentalaurate				
	FUS		196.5	316.7	DSC	[2015BIC/SAR]
$C_{65}H_{124}$	[66563-39-1]	Nonapentacontylbenzene				
	V	(599–911)	160.1	614		[1999DYK/SVO]
$C_{65}H_{130}$	[66563-40-4]	Nonapentacontylcyclohexane				
	V	(599–912)	159.9	614		[1999DYK/SVO]
$C_{65}H_{130}$	[66563-41-5]	1-pentahexacontene				
	V	(597–905)	161.1	612		[1999DYK/SVO]
$C_{65}H_{132}$	[7719-88-2]	Pentahexacontane				
	V	(653–910)	169	668	A, E	[1987STE/MAL, 1966KUD/ZWO]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{65}H_{132}$	[66563-42-6]	2-methyltetrahexacontane				
	V	(597–903)	162.5	612		[1999DYK/SVO]
$C_{65}H_{132}S$	[66563-43-7]	1-pentahexacontanethiol				
	V	(606–917)	162.1	621	E	[1999DYK/SVO]
$C_{66}H_{80}O_{10}$	[1196990-927]	1,3-bis[4-(4-tetradecyloxybenxoyloxy)benxoyloxy]naphthalene				
	FUS		73.8	401.1	DSC	[2009GIM/CLE]
$C_{66}H_{80}O_{10}$	[1196990-961]	1,7-bis[4-(4-tetradecyloxybenxoyloxy)benxoyloxy]naphthalene				
	TRS		15.4	418.2		
	FUS		54	428.4	DSC	[2009GIM/CLE]
$C_{66}H_{84}O_6$	[78092-53-2]	*p-tert*-butylcalix[6]arene				
	SUB		U225 ± 14		ME	[2011SUR/VOR]
$C_{66}H_{109}NO_4$	[425406-55-9]	2,7-didodecyloxy-9-(3,5-didodecyloxyphenyl)carbazole				
	FUS		61.87	333.2	DSC	[2002PER/LOP]
$C_{66}H_{126}$	[66563-44-8]	Hexacontylbenzene				
	V	(602–914)	161.2	617		[1999DYK/SVO]
$C_{66}H_{132}$	[66563-45-9]	Hexacontylcyclohexane				
	V	(601–915)	160.5	616		[1999DYK/SVO]
$C_{66}H_{132}$	[66563-46-0]	1-hexahexacontene				
	V	(599–908)	161.7	614		[1999DYK/SVO]
$C_{66}H_{134}$	[7719-89-3]	Hexahexacontane				
	V	(323–523)	324.0 ± 1.0	298	CGC	[2008CHI/WAN]
	V	(656–914)	170	671	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{66}H_{134}$	[66563-47-1]	2-methylpentahexacontane				
	V	(599–906)	163.1	614		[1999DYK/SVO]
$C_{66}H_{134}S$	[66563-48-2]	1-hexahexacontanethiol				
	V	(607–920)	162.8	622	E	[1999DYK/SVO]
$C_{67}H_{128}$	[66563-72-2]	Henhexacontylbenzene				
	V	(603–917)	162.1	618		[1999DYK/SVO]
$C_{67}H_{128}$	[66563-73-3]	Henhexacontylcyclohexane				
	V	(603–917)	160.9	618		[1999DYK/SVO]
$C_{67}H_{134}$	[66563-74-4]	1-heptahexacontene				
	V	(601–911)	162.3	616		[1999DYK/SVO]
$C_{67}H_{136}$	[7719-90-6]	Heptahexacontane				
	V	(659–937)	170.9	674	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{67}H_{134}$	[66563-75-5]	2-methylhexahexacontane				
	V	(601–909)	163.7	616		[1999DYK/SVO]
$C_{67}H_{134}S$	[66563-76-6]	1-heptahexacontanethiol				
	V	(609–922)	163.2	624	E	[1999DYK/SVO]
$C_{68}H_{130}$	[66563-75-5]	Dohexacontylbenzene				
	V	(605–920)	162.6	620		[1999DYK/SVO]
$C_{68}H_{130}O_8$	[1353634-77-1]	Erythritol tetrapalmitate				
	FUS		216.3	295.1	DSC	[2012SAR/KAR]
$C_{68}H_{136}$	[66563-78-8]	Dohexacontylcyclohexane				
	V	(605–920)	161.5	620		[1999DYK/SVO]
$C_{68}H_{136}$	[66563-79-9]	1-octahexacontene				
	V	(603–913)	162.8	618		[1999DYK/SVO]
$C_{68}H_{138}$	[7719-91-7]	Octahexacontane				
	V	(323–523)	331.9 ± 0.2	298	CGC	[2008CHI/WAN]
	V	(661–920)	172.3	676	A, E	[1987STE/MAL, 1966KUD/ZWO]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{68}H_{138}$	[66563-80-2]	2-methylheptahexacontane				
	V	(603–912)	164.3	618		[1999DYK/SVO]
$C_{68}H_{138}S$	[66563-81-3]	1-octahexacontanethiol				
	V	(611–925)	163.6	626	E	[1999DYK/SVO]
$C_{69}H_{132}$	[66563-82-4]	Trihexacontylbenzene				
	V	(607–923)	163.1	622		[1999DYK/SVO]
$C_{69}H_{138}$	[66563-83-5]	1-nonhexacontene				
	V	(605–916)	163.4	620		[1999DYK/SVO]
$C_{69}H_{138}$	[66563-93-7]	Trihexacontylcyclohexane				
	V	(607–923)	162	622		[1999DYK/SVO]
$C_{69}H_{140}$	[7719-92-8]	Nonahexacontane				
	V	(664–923)	173.2	679	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{69}H_{140}$	[66563-94-8]	2-methyloctahexacontane				
	V	(605–914)	164.9	620		[1999DYK/SVO]
$C_{69}H_{140}S$	[66577-83-1]	1-nonahexacontanethiol				
	V	(612–928)	164.4	627	E	[1999DYK/SVO]
C_{70}	[115383-22-7]	Fullerene–C70				
	SUB	(890–1000)	182.7 ± 0.7	945	TGA	[2015MAR/CAM]
	SUB	(890–1000)	194.5 ± 1.7	298	TGA	[2015MAR/CAM]
	SUB	(864–1099)	199 ± 2	298	ME	[2000SCH/MAT]
	SUB	(783–904)	189.8 ± 3.1	844	ME	[1996PIA/GIG]
	SUB		200 ± 6.0	298		[1996PIA/GIG]
	SUB		174 ± 3.0	740	ME	[1994POP/DRA]
	SUB		193.4 ± 1.5	750	MS	[1994SAI/LAK]
	SUB		186.6	788	ME	[1993MAT/SAI]
	SUB	(673–873)	188.3 ± 4.2		ME	[1992ABR/OLA2]
	SUB	(640–800)	180.0 ± 9.2	739	ME, MS	[1991PAN/SAM]
$C_{70}H_{134}$	[66577-84-2]	Tetrahexacontylbenzene				
	V	(609–925)	163.6	624		[1999DYK/SVO]
$C_{70}H_{140}$	[66577-85-3]	1-heptacontene				
	V	(607–919)	163.9	622		[1999DYK/SVO]
$C_{70}H_{140}$	[66577-86-4]	Tetrahexacontylcyclohexane				
	V	(608–926)	162.8	623		[1999DYK/SVO]
$C_{70}H_{142}$	[7719-93-9]	Heptacontane				
	V	(323–523)	340.3 ± 0.3	298	CGC	[2008CHI/WAN]
	V	(666–926)	174.4	681	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{70}H_{142}$	[66577-87-5]	2-methylnonahexacontane				
	V	(607–917)	165.4	622		[1999DYK/SVO]
$C_{70}H_{142}S$	[66577-88-6]	1-heptacontanethiol				
	V	(614–930)	164.8	621	E	[1999DYK/SVO]
$C_{71}H_{136}$	[66577-89-7]	Pentahexacontylbenzene				
	V	(611–928)	164.4	626		[1999DYK/SVO]
$C_{71}H_{142}$	[66577-90-0]	1-henheptacontene				
	V	(609–922)	164.4	624		[1999DYK/SVO]
$C_{71}H_{142}$	[66577-91-1]	Pentahexacontylcyclohexane				
	V	(610–928)	163.3	625		[1999DYK/SVO]
$C_{71}H_{144}$	[7667-82-5]	Henheptacontane				
	V	(669–928)	175.2	684	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{71}H_{144}$	[66577-92-2]	2-methylheptacontane				
	V	(609–920)	165.9	624		[1999DYK/SVO]
$C_{71}H_{144}S$	[66577-93-3]	1-henheptacontanethiol				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(616–933)	165.1	631	E	[1999DYK/SVO]
$C_{72}F_{36}$	[888472-41-1]	1,6,11,16,18,26,36,44,46,49,54,60-dodecahydro-1,6,11,16,18,26,36,44,46,49,54,60-dodecakis(trifluoromethyl)-[5,6]fullerene-C60-Ih				
	SUB		140 ± 5	512	ME, MS	[2007GRU/ALE]
$C_{72}H_{96}O_{48}$	[23661-37-2]	Hexakis(2,3,4-tri-*O*-acetyl)-α-cyclodextrin				
	FUS		74.37	505.7	DSC	[2006BET/SOR]
$C_{72}H_{138}$	[66577-94-4]	Hexahexacontylbenzene				
	V	(613–931)	164.5	628		[1999DYK/SVO]
$C_{72}H_{144}$	[63217-76-5]	Cyclodoheptacontane				
	FUS		220.4	380.2	DSC	[1987DRO/EME]
	FUS		220	379.3	DSC	[1987DRO/MOL]
$C_{72}H_{144}$	[66577-95-5]	1-doheptacontene				
	V	(610–924)	165.3	625		[1999DYK/SVO]
$C_{72}H_{144}$	[66577-96-6]	Hexahexacontylcyclohexane				
	V	(612–931)	163.8	627		[1999DYK/SVO]
$C_{72}H_{146}$	[7667-83-6]	Doheptacontane				
	V	(323–523)	348.4 ± 0.3	298	CGC	[2008CHI/WAN]
	V	(671–931)	176.4	686	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{72}H_{146}$	[66577-97-7]	2-methylhenheptacontane				
	V	(611–923)	166.4	626		[1999DYK/SVO]
$C_{72}H_{146}S$	[66577-98-8]	1-doheptacontanethiol				
	V	(617–935)	165.8	632	E	[1999DYK/SVO]
$C_{73}H_{108}O_{12}$	[6683-19-8]	Tetrakis[methylene-3-(3,5-di-*tert*-butyl-4-hydroxyphenylpropionate]methane				
	FUS		65.95	385.8	DSC	[2009WEI/CHE]
$C_{73}H_{140}$	[66577-99-9]	Heptahexacontylbenzene				
	V	(614–933)	165.4	629		[1999DYK/SVO]
$C_{73}H_{146}$	[66578-00-5]	Heptahexacontylcyclohexane				
	V	(614–933)	164.2	629		[1999DYK/SVO]
$C_{73}H_{146}$	[66578-01-6]	1-triheptacontene				
	V	(612–927)	165.7	627		[1999DYK/SVO]
$C_{73}H_{148}$	[7667-84-7]	Triheptacontane				
	V	(674–934)	177.1	689	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{73}H_{148}$	[66578-02-7]	2-methyldoheptacontane				
	V	(613–926)	166.9	628		[1999DYK/SVO]
$C_{73}H_{148}S$	[66577-64-8]	1-triheptacontanethiol				
	V	(619–938)	166.2	634	E	[1999DYK/SVO]
$C_{74}H_{142}$	[66577-65-9]	Octahexacontylbenzene				
	V	(616–936)	165.8	631		[1999DYK/SVO]
$C_{74}H_{148}$	[66577-66-0]	Octahexacontylcyclohexane				
	V	(615–936)	165	630		[1999DYK/SVO]
$C_{74}H_{148}$	[66577-67-1]	1-tetraheptacontene				
	V	(614–930)	166.2	629		[1999DYK/SVO]
$C_{74}H_{150}$	[7667-85-8]	Tetraheptacontane				
	V	(323–523)	356.2 ± 0.1	298	CGC	[2008CHI/WAN]
	V	(676–936)	178.2	691	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{74}H_{150}$	[66577-68-2]	2-methyltriheptacontane				
	V	(615–928)	167.4	630		[1999DYK/SVO]
$C_{74}H_{150}S$	[66577-69-3]	1-tetraheptacontanethiol				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(620–940)	166.9	635	E	[1999DYK/SVO]
$C_{75}H_{142}O_{10}$		Xylitol pentamyristate				
	FUS		240.2	323.5	DSC	[2015BIC/SAR]
$C_{75}H_{144}$	[66577-70-6]	Nonahexacontylbenzene				
	V	(618–938)	166.3	633		[1999DYK/SVO]
$C_{75}H_{150}$	[66577-71-7]	Nonahexacontylcyclohexane				
	V	(617–632)	165.4	632		[1999DYK/SVO]
$C_{75}H_{150}$	[66577-72-8]	1-pentaheptacontene				
	V	(616–932)	166.7	631		[1999DYK/SVO]
$C_{75}H_{150}N_6$	[106486-50-4]	Tris(*N*,*N*-didodecylamino)-1,3,5-triazine				
	FUS		119.19	320.3	DSC	[1986LAT/HOE]
$C_{75}H_{152}$	[7667-86-9]	Pentaheptacontane				
	V	(678–939)	179.4	693	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{75}H_{152}$	[66577-73-9]	2-methyltetraheptacontane				
	V	(616–931)	168.2	631		[1999DYK/SVO]
$C_{75}H_{152}S$	[66577-74-0]	1-pentaheptacontanethiol				
	V	(622–942)	167.2	637	E	[1999DYK/SVO]
C_{76}	[135113-15-4]	Fullerene–C76				
	SUB	(637–911)	190 ± 7	764	ME	[1998BOL/MAR]
	SUB	(834–1069)	206 ± 4.0	298	TE	[1997BRU/GIG]
C_{76}	[142136-39-8]	Fullerene–C76 (D2 -isomer)				
	SUB	(940–1020)	190.4 ± 3.1	978	TGA	[2015MAR/CAM]
	SUB	(940–1020)	202.9 ± 6.2	298	TGA	[2015MAR/CAM]
$C_{76}H_{94}N_4$	[89372-90-7]	5,10,15,20-tetrakis(3,5-di-*tert*-butylphenyl)porphine				
	SUB		209 ± 5			[2000PER/GOL]
$C_{76}H_{146}$	[66577-75-1]	Heptacontylbenzene				
	V	(619–941)	167	634		[1999DYK/SVO]
$C_{76}H_{146}O_8$	[117204-16-7]	Erythritol tetrastearate				
	FUS		248.0	303.6	DSC	[2012SAR/KAR]
$C_{76}H_{152}$	[66577-76-2]	Heptacontylcyclohexane				
	V	(619–941)	165.8	634		[1999DYK/SVO]
$C_{76}H_{152}$	[66577-77-3]	1-hexaheptacontene				
	V	(617–935)	167.5	632		[1999DYK/SVO]
$C_{76}H_{154}$	[7667-87-0]	Hexaheptacontane				
	V	(323–523)	364.3 ± 0.3	298	CGC	[2008CHI/WAN]
	V	(680–941)	80.4	695	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{76}H_{154}$	[66577-78-4]	2-methylpentaheptacontane				
	V	(618–933)	168.7	633		[1999DYK/SVO]
$C_{76}H_{154}S$	[66577-79-5]	1-hexaheptacontanethiol				
	V	(623–945)	169.8	638		[1999DYK/SVO]
$C_{77}H_{148}$	[66577-80-8]	Henheptacontylbenzene				
	V	(621–943)	167.4	636		[1999DYK/SVO]
$C_{77}H_{154}$	[66577-81-9]	Henheptacontylcyclohexane				
	V	(620–943)	166.6	635		[1999DYK/SVO]
$C_{77}H_{154}$	[66577-82-0]	1-heptaheptacontene				
	V	(619–937)	167.9	634		[1999DYK/SVO]
$C_{77}H_{156}$	[7719-94-0]	Heptaheptacontane				
	V	(682–944)	181.4	697	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{77}H_{156}$	[66575-56-2]	2-methylhexaheptacontane				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(620–936)	169.1	635		[1999DYK/SVO]
$C_{77}H_{156}S$	[66575-57-3]	1-heptaheptacontanethiol				
	V	(625–947)	168.2	640	E	[1999DYK/SVO]
C_{78}	[136316-32-0]	Fullerene–C78				
	SUB	(810–1010)	194.6 ± 5.7	920	TGA	[2015MAR/CAM]
	SUB	(810-1010)	206.0 ± 11.5	298	TGA	[2015MAR/CAM]
$C_{78}H_{108}$	[125594-11-8]	2,3,6,7,10,11-hexakis(1-decynyl)triphenylene				
	FUS		63	314.2	DSC	[1996DOM/HEA, 1990PRA/KOH]
$C_{78}H_{150}$	[66327-30-8]	Doheptacontylbenzene				
	V	(622–945)	167.3	637		[1999DYK/SVO]
$C_{78}H_{156}$	[66327-31-9]	Doheptacontylcyclohexane				
	V	(622–945)	166.9	637		[1999DYK/SVO]
$C_{78}H_{156}$	[66327-32-0]	1-octaheptacontene				
	V	(621–940)	168.3	636		[1999DYK/SVO]
$C_{78}H_{158}$	[7719-85-9]	Octaheptacontane				
	V	(638–691)	372.1 ± 3.7	298	CGC	[2008CHI/LIP]
	V	(685–946)	181.8	700	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{78}H_{158}$	[66327-33-1]	2-methylheptaheptacontane				
	V	(621–939)	169.9	636		[1999DYK/SVO]
$C_{78}H_{158}S$	[66375-13-1]	1-octaheptacontanethiol				
	V	(626–949)	168.8	641	E	[1999DYK/SVO]
$C_{79}H_{152}$	[66327-34-2]	Triheptacontylbenzene				
	V	(623–947)	168	638		[1999DYK/SVO]
$C_{79}H_{158}$	[66327-35-3]	1-nonaheptacontene				
	V	(622–942)	169.1	637		[1999DYK/SVO]
$C_{79}H_{158}$	[66327-36-4]	Triheptacontylcyclohexane				
	V	(623–948)	167.7	638		[1999DYK/SVO]
$C_{79}H_{160}$	[7719-86-0]	Nonaheptacontane				
	V	(687–949)	182.7	702	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{79}H_{160}$	[66327-37-5]	2-methyloctaheptacontane				
	V	(622–940)	167.8	637		[1999DYK/SVO]
$C_{79}H_{16}OS$	[66327-38-6]	1-nonaheptacontanethiol				
	V	(628–952)	169.1	643	E	[1999DYK/SVO]
$C_{80}H_{154}$	[66327-39-7]	Tetraheptacontylbenzene				
	V	(625–949)	168.4	640		[1999DYK/SVO]
$C_{80}H_{160}$	[66327-40-0]	1-octacontene				
	V	(624–945)	169.4	639		[1999DYK/SVO]
$C_{80}H_{160}$	[66327-41-1]	Tetraheptacontylcyclohexane				
	V	(625–950)	168	640		[1999DYK/SVO]
$C_{80}H_{162}$	[7667-88-1]	Octacontane				
	V	(638–691)	379.6 ± 3.8	298	CGC	[2008CHI/LIP]
	V	(689–951)	183.6	704	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{80}H_{162}$	[66327-42-2]	2-methylnonaheptacontane				
	V	(624–943)	170.2	639		[1999DYK/SVO]
$C_{80}H_{162}S$	[66327-43-3]	1-octacontanethiol				
	V	(629–954)	169.6	644	E	[1999DYK/SVO]
$C_{81}H_{156}$	[66327-44-4]	Pentaheptacontylbenzene				
	V	(636–952)	169.1	641		[1999DYK/SVO]
$C_{81}H_{162}$	[66327-45-5]	1-henoctacontene				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(625–946)	169.3	640		[1999DYK/SVO]
$C_{81}H_{162}$	[66327-46-6]	Pentaheptacontylcyclohexane				
	V	(627–52)	168.4	642		[1999DYK/SVO]
$C_{81}H_{164}$	[7667-89-2]	Henoctacontane				
	V	(691–953)	184.5	706	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{81}H_{164}$	[66327-47-7]	2-methyloctancontane				
	V	(625–945)	17Q.9	640		[1999DYK/SVO]
$C_{81}H_{164}S$	[66327-48-8]	1-henoctacontanethiol				
	V	(630–955)	169.4	645	E	[1999DYK/SVO]
$C_{82}H_{158}$	[66327-49-9]	Hexaheptacontylbenzene				
	V	(628–954)	169.4	643		[1999DYK/SVO]
$C_{82}H_{164}$	[66327-50-2]	1-dooctacontene				
	V	(626–949)	157.6	641		[1999DYK/SVO]
$C_{82}H_{164}$	[66327-09-1]	Hexaheptacontylcyclohexane				
	V	(627–954)	168.5	642		[1999DYK/SVO]
$C_{82}H_{166}$	[7719-95-1]	Dooctacontane				
	V	(638–691)	387.2 ± 3.8	298	CGC	[2008CHI/LIP]
	V	(693–955)	185.3	708	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{82}H_{166}$	[66327-10-4]	2-methylhenoctacontane				
	V	(627–947)	171.3	642		[1999DYK/SVO]
$C_{82}H_{166}S$	[66327-11-5]	1-dooctacontanethiol				
	V	(631–57)	170	646	E	[1999DYK/SVO]
$C_{83}H_{160}$	[66327-12-6]	Heptaheptacontylbenzene				
	V	(628–955)	169.6	643		[1999DYK/SVO]
$C_{83}H_{166}$	[66327-13-7]	Heptaheptaconylcyclohexane				
	V	(629–956)	168.9	644		[1999DYK/SVO]
$C_{83}H_{166}$	[66327-14-8]	1-trioctacontene				
	V	(628–951)	170.4	643		[1999DYK/SVO]
$C_{83}H_{168}$	[7667-90-5]	Trioctacontane				
	V	(694–957)	186.5	709	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{83}H_{168}$	[66327-15-9]	2-methyldooctacontane				
	V	(628–949)	171.1	643		[1999DYK/SVO]
$C_{83}H_{168}S$	[66327-16-0]	1-trioctacontanethiol				
	V	(633–959)	170.2	648	E	[1999DYK/SVO]
C_{84}	[135113-16-5]	Fullerene–C84				
	SUB	(1053–1153)	205.4 ± 1.4	1115	TGA	[2015MAR/CAM]
	SUB	(1053–1153)	220.4 ± 3.0	298	TGA	[2015MAR/CAM]
	SUB	(658–980)	202 ± 4.0	853	ME	[1998BOL/MAR2]
	SUB	(920–1190)	210 ± 6	950	TE	[1997PIA/PAL]
$C_{84}H_{112}O_{56}$	[23739-88-0]	Heptakis(2,3,6-tri-*O*-acetyl)-β-cyclodextrin				
	FUS		82.73	491.7	DSC	[2006BET/SOR]
$C_{84}H_{162}$	[66327-17-1]	Octaheptacontylbenzene				
	V	(630–957)	169.9	645		[1999DYK/SVO]
$C_{84}H_{168}$	[66327-18-2]	Octaheptacontylcyclohexane				
	V	(630–958)	169.5	645		[1999DYK/SVO]
$C_{84}H_{168}$	[66327-19-3]	1-tetraoctacontene				
	V	(629–953)	170.1	644		[1999DYK/SVO]
$C_{84}H_{170}$	[7667-91-6]	Tetraoctacontane				
	V	(638–691)	394.0 ± 3.9	298	CGC	[2008CHI/LIP]
	V	(696–960)	187.3	711	A, E	[1987STE/MAL, 1966KUD/ZWO]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{84}H_{170}$	[66327-20-6]	2-methyltrioctacontane				
	V	(629–951)	171.8	644		[1999DYK/SVO]
$C_{84}H_{170}S$	[66327-21-7]	1-tetraoctacontanethiol				
	V	(634–962)	170.8	649	E	[1999DYK/SVO]
$C_{85}H_{162}O_{10}$	[1426298-23-8]	Xylitol pentaplamitate				
	FUS		228.6	291.9	DSC	[2012BIC/SAR]
$C_{85}H_{164}$	[66327-22-8]	Nonheptacontylbenzene				
	V	(631–960)	170.6	646		[1999DYK/SVO]
$C_{85}H_{170}$	[66327-23-9]	Nonheptacontylcyclohexane				
	V	(632–960)	169.8	647		[1999DYK/SVO]
$C_{85}H_{170}$	[66327-24-0]	1-pentaoctacontene				
	V	(630–955)	170.9	645		[1999DYK/SVO]
$C_{85}H_{172}$	[7719-96-2]	Pentaoctacontane				
	V	(698–962)	187.9	713	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{85}H_{172}$	[66327-25-1]	2-methyltetraoctacontane				
	V	(631–953)	172.1	646		[1999DYK/SVO]
$C_{85}H_{172}S$	[66327-26-2]	1-pentaoctacontanethiol				
	V	(634–963)	170.8	649	E	[1999DYK/SVO]
$C_{86}H_{166}$	[66327-27-3]	Octacontylbenzene				
	V	(633–962)	170.9	648		[1999DYK/SVO]
$C_{86}H_{172}$	[66327-28-4]	1-hexaoctacontene				
	V	(631–957)	171.5	646		[1999DYK/SVO]
$C_{86}H_{172}$	[66327-29-5]	Octacontylcyclohexane				
	V	(632–962)	169.9	647		[1999DYK/SVO]
$C_{86}H_{174}$	[7667-92-7]	Hexaoctacontane				
	V	(638–691)	402.1 ± 4.0	298	CGC	[2008CHI/LIP]
	V	(700–964)	188.6	715	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{86}H_{174}$	[66326-88-3]	2-methylpentaoctacontane				
	V	(632–956)	172.8	647		[1999DYK/SVO]
$C_{86}H_{174}S$	[66326-89-4]	1-hexaoctacontanethiol				
	V	(636–965)	171.1	651	E	[1999DYK/SVO]
$C_{87}H_{168}$	[66326-90-7]	Henoctacontylbenzene				
	V	(633–963)	171	648		[1999DYK/SVO]
$C_{87}H_{174}$	[66326-91-8]	Henoctacontylcyclohexane				
	V	(633–964)	170.6	648		[1999DYK/SVO]
$C_{87}H_{174}$	[66326-92-9]	1-heptaoctacontene				
	V	(633–959)	171.8	648		[1999DYK/SVO]
$C_{87}H_{176}$	[7667-93-8]	Heptaoctacontane				
	V	(702–966)	189.3	717	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{87}H_{176}$	[66326-93-0]	2-methylhexaoctacontane				
	V	(633–957)	172.6	648		[1999DYK/SVO]
$C_{87}H_{176}S$	[66326-94-1]	1-heptaoctacontanethiol				
	V	(637–967)	171.7	652	E	[1999DYK/SVO]
$C_{84}H_{144}O_6$	[501447-88-7]	2,3,6,7,10,11-hexakis[[(2R,4R,6R)-2,4,6-trimethyloctyl]oxy]triphenylene				
	TRS		38	141.2		
	FUS		5.2	237.2	DSC	[2002SCH/LAS]
$C_{88}H_{170}$	[66326-95-2]	Dooctacontylbenzene				
	V	(635–965)	171.3	650		[1999DYK/SVO]
$C_{88}H_{176}$	[66326-96-3]	Dooctacontylcyclohexane				

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(635–966)	170.8	650		[1999DYK/SVO]
$C_{88}H_{176}$	[66326-97-4]	1-octaoctacontene				
	V	(634–961)	172.5	649		[1999DYK/SVO]
$C_{88}H_{178}$	[7667-94-9]	Octaoctacontane				
	V	(638–691)	409.2 ± 4.1	298	CGC	[2008CHI/LIP]
	V	(703–967)	190.4	718	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{88}H_{178}$	[66326-98-5]	2-methylheptaoctacontane				
	V	(634–959)	173.3	649		[1999DYK/SVO]
$C_{88}H_{178}S$	[66326-99-6]	1-octacontanethiol				
	V	(639–969)	171.9	654	E	[1999DYK/SVO]
$C_{89}H_{172}$	[66327-00-2]	Trioctacontylbenzene				
	V	(636–967)	172	651		[1999DYK/SVO]
$C_{89}H_{178}$	[66327-01-3]	1-nonaoctacontene				
	V	(635–962)	172.3	650		[1999DYK/SVO]
$C_{89}H_{178}$	[66327-02-4]	Trioctacontylcyclohexane				
	V	(636–968)	171.5	651		[1999DYK/SVO]
$C_{89}H_{180}$	[7719-76-8]	Nonaoctacontane				
	V	(705–969)	190.9	720	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{89}H_{180}$	[66327-03-5]	2-methyloctaoctacontane				
	V	(636–962)	173.6	651		[1999DYK/SVO]
$C_{89}H_{180}S$	[66327-04-6]	1-nonaoctacontanethiol				
	V	(639–970)	171.9	654	E	[1999DYK/SVO]
$C_{90}H_{174}$	[66327-05-7]	Tetraoctacontylbenzene				
	V	(637–968)	171.7	652		[1999DYK/SVO]
$C_{90}H_{182}$	[7667-51-8]	Nonacontane				
	V	(638–691)	416.4 ± 4.3	298	CGC	[2008CHI/LIP]
	V	(707–971)	191.6	722	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{91}H_{184}$	[7719-97-3]	Hennonacontane				
	V	(708–973)	192.5	723	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{92}H_{186}$	[7667-95-0]	Dononacontane				
	V	(638–691)	424.5 ± 4.0	298	CGC	[2008CHI/LIP]
	V	(710–975)	193	725	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{92}H_{186}O_{46}$		1,ω-dimethoxypentatetracosa(oxyethylene)				
	FUS		374.8	324.2	DSC	[1996YAN/YU]
$C_{93}H_{188}$	[7667-96-1]	Trinonacontane				
	V	(711–977)	194.1	726	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{94}H_{190}$	[1574-32-9]	Tetranonacontane				
	V	(713–978)	194.5	728	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{95}H_{182}O_{10}$	[60869-87-6]	Xylitol pentastearate				
	FUS		305.3	305.5	DSC	[2012BIC/SAR]
$C_{95}H_{192}$	[7667-97-2]	Pentanonacontane				
	V	(714–980)	195.4	729	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{96}H_{192}$	[63217-79-8]	Cyclohexanonacontane				
	FUS		302	389	DSC	[1987DRO/MOL]
	FUS		300	389.1	DSC	[1987DRO/EME]
$C_{96}H_{194}$	[7763-13-5]	Hexanonacontane				
	V	(716–982)	195.8	731	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{97}H_{196}$	[7670-25-9]	Heptanonacontane				
	V	(717–983)	196.6	732	A, E	[1987STE/MAL, 1966KUD/ZWO]

TABLE 16. Phase change enthalpies of C_{50} to C_{192} organic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{98}H_{198}$	[7670-26-0]	Octanonacontane				
	V	(719–985)	196.9	734	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{99}H_{200}$	[7670-27-1]	Nonanonacontane				
	V	(720–986)	197.8	735	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{100}H_{202}$	[6703-98-6]	Hectane				
	TRS		54.8	365.5		
	FUS		331.8	338.5	DSC	[1970HAY]
	V	(721–988)	198.5	736	A, E	[1987STE/MAL, 1966KUD/ZWO]
$C_{102}H_{180}O_6$	[501447-89-8]	2,3,6,7,10,11-hexakis[[(2R,4R,6R,8R)-2,4,6,8-tetramethyldecyl]oxy]triphenylene				
	TRS		23.4	139.2		
	FUS		6.6	236.2	DSC	[2002SCH/LAS]
$C_{102}H_{194}O_{12}$	[97334-70-8]	Galactitol hexapalmitate				
	FUS		325.2	305.0	DSC	[2011SAR/BIC]
$C_{114}H_{218}O_{12}$		Galactitol hexastearate				
	FUS		447.1	321.0	DSC	[2011SAR/BIC]
$C_{192}H_{386}$	[96123-38-5]	*n*-dononacontahectane				
	FUS		661.1	399.1	DSC	[1989STA/MAN]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
Ag						
$(C_5H_{10}O_2Ag)_2$	[7324-58-5]	Silver 2,2-dimethylpropanoate (dimer)				
	SUB		146.9 ± 8.9			[2001MAL/PAR]
AgBr	[7785-23-1]	Silver bromide				
	FUS		7.92	695	DSC	[2008RYC/SZY]
	FUS		8.5	700		[1970PAN]
	V	(1240–1497)	198.5	1369	BP	[1958BLO/BOC]
AgCl	[7783-90-6]	Silver chloride				
	FUS		13.16	736	DSC	[2008RYC/SZY]
	FUS		12.3	730		[1970PAN]
	V	(1301–1533)	198.9	1417	BP	[1958BLO/BOC]
AgI	[7783-96-2]	Silver chloride				
	TRS		6.11	420.75	DSC	[1984KHA/TAR]
Al						
C_3H_9A1	[75-24-1]	Trimethylaluminum				
	FUS		17.1		S-V	[2003FUL/RUZ]
[Note: The authors noted the large discrepancy between their calculated value based on the difference in the enthalpy of sublimation minus the enthalpy of vaporization and the published literature data.]						
	FUS		8.79	288.4		[1996DOM/HEA, 1963MCC/MES]
	SUB	(243–285)	60.1			[2003FUL/RUZ]
	V	(288–293)	43.0			[2003FUL/RUZ]
	V	(291–321)	41.3 ± 0.3		I	[1967HEN/EYM]
	V	(336–400)	39.8	351		[1963MCC/MES]
	V		63.2 ± 1.7			[1963MOR/SEL, 1982PIL/SKI]
The authors of [1963MOR/SEL] state that the value of 63.2 is for the process $Al(CH_3)_3$ (liq) → $Al(CH_3)_3$ (gas, monomer)						
	V		41.1		BG	[1946BAM/LEV]
$C_4H_{10}AlCl$	[96-10-6]	Diethylaluminium chloride				
	V	(278–318)	50.5	293		[1991BUC/POT]
	V	(273–473)	53.9	373		[1991BUC/POT]
$C_4H_{11}Al$	[871-27-2]	Diethylaluminum hydride				
	V		57.7 ± 2.1			[1967PAW, 1982PIL/SKI, 1965SHA/SCH]
	V		46.9			[1965SHA/SCH]
$C_5H_5AlBr_3N$	[15348-61-5]	Aluminum tribromide-pyridine complex				
	SUB	(501–633)	71.2 ± 0.6		T	[1989GRI/KON]
	SUB		83.3		B, E	[1967WIL/WAR]
$C_6H_{15}Al$	[97-93-8]	Triethylaluminum				
	FUS	(5–313)	10.6	225	AC	[1996DOM/HEA, 1989RAB/NIS2]
	V		73.2 ± 2.1			[1967PAW, 1982PIL/SKI, 1965SHA/SCH]
	V		60.2			[1965SHA/SCH]
	V		54.1		BG	[1946BAM/LEV]
$C_6H_{15}AlO_3$	[555-75-9]	Aluminum ethoxide				
	V	(431–511)	84.5	471	I	[1957WIL]
$C_6H_{15}AlO$	[1586-92-1]	Diethylaluminium ethoxide				
	V	(403–463)	48.7 ± 0.8	433		[1974SHM/GOL]
$C_7H_{17}AlO$	[6083-26-7]	Diethylaluminium propoxide				
	V	(398–463)	51.0 ± 0.8	430		[1974SHM/GOL]
$C_8H_{19}Al$	[1191-15-7]	Diisobutylaluminum hydride				
	V		42.3 ± 2.1			[1967PAW, 1982PIL/SKI, 1965SHA/SCH]
	V		35.6			[1965SHA/SCH]
$C_9H_{21}Al$	[102-67-0]	Tripropylaluminum				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		43 ± 2.0			[2002BAE/SHI]
	V		42.5 ± 1.2			[1967PAW, 1982PIL/SKI]
$C_9H_{21}AlO_3$	[4073-85-2]	Aluminum propoxide				
	V	(475–539)	U93.3	507	I	[1957WIL]
$C_9H_{21}AlO_3$	[555-31-7]	Aluminum isopropoxide				
	V	(353–399)	48.1 ± 6.3	376		[1972BLE/FIE]
	V	(392–446)	U88.3	419	I	[1957WIL]
$C_{12}H_{27}Al$	[100-99-2]	Triisobutylaluminium				
	V	(273–322)	38.3	298		[1964SHA/TUB]
$C_{12}H_{27}AlO_3$	[3085-30-1]	Tributoxyaluminum				
	V	(503–533)	104.1	518	A,I	[1987STE/MAL, 1957WIL]
$C_{12}H_{27}AlO_3$	[3453-79-0]	Triisobutoxyaluminum				
	V	(500–550)	139.4	515	A,I	[1987STE/MAL, 1957WIL]
$C_{12}H_{27}AlO_3$	[2269-22-9]	Tri-*sec*-butoxyaluminum				
	V	(425–469)	81.5	440	A,I	[1987STE/MAL, 1957WIL]
$C_{15}H_3AlF_{18}O_6$	[15306-18-0]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)aluminun(III)				
	SUB	(333–363)	52.0		TGA	[2000FAH/BAR]
	SUB	(324–344)	77.6 ± 6.2	334	BG	[1987GRI/LAZ2, 1988LAZ/GRE]
	SUB		79.0 ± 6.5	298		[1987GRI/LAZ2]
	SUB		74.1 ± 2.5			[1985IGU/GER, 1987GRI/LAZ2]
	SUB	(323–347)	109.6 ± 3.8	335		[1972FON/POM]
	V	(343–398)	59.2	370	GC	[1978BUB/MAZ]
	V	(347–373)	50.4	360		[1972FON/POM]
$C_{15}H_{12}AlF_9O_6$	[14354-59-7]	tris(1,1,1-trifluoro-2,4-pentanedionato)aluminum(III)				
	SUB	(373–403)	74.0		TGA	[2000FAH/BAR]
	SUB	(363–423)	113.4 ± 1.3		GS	[1985MAT/KUW]
	SUB	(369–392)	102.7 ± 3.2			[1978IGU/CHU2]
	SUB		108 ± 2.0			[1977NAG, 1988GOL/SIT]
	SUB		43.1	443		[1977VOL/MAZ]
	SUB	(354–396)	93.7 ± 6.7	375		[1972FON/POM]
	SUB		41.0			[1965FRA]
	SUB		40.0			[1960BER/TRU, 1965BER/TRU]
	V	(349–411)	58.7 ± 0.7	380	BG	[1988LAZ/GRE]
	V	(392–484)	69.6 ± 0.5	438		[1978IGU/CHU2]
	V	(403–473)	78.8	438	GC	[1978BUB/MAZ]
	V	(396–425)	66.3	410		[1972FON/POM]
$C_{15}H_{21}AlO_6$	[13963-57-0]	tris(pentane-2,4-dionato)aluminum(III)				
	FUS		35.2	463	DSC	[2004SAB/MAR]
	FUS		33.7	466.7	DSC	[1988LAZ/GRE]
	FUS		32.7	458		[1971BEE/LIN2]
	SUB		107.1		DTA,TGA	[2009GAI/KUN]
	SUB	(345–410)	101.8	378	ME	[2007SID/SID]
	SUB	(376–467)	121.8 ± 1.5	298		[2006SEM/IGU]
	SUB	(413–443)	93		TGA	[2000FAH/BAR]
	SUB		120 ± 3.0	298	ME	[1988RIB/FER4]
	SUB	(432–464)	102.0 ± 3.2	448	BG	[1988LAZ/GRE]
	SUB	(430–460)	116.9 ± 1.5	298	T	[1986GRI/LAZ]
	SUB		47.1 ± 1.0			[1981TEG/FER]
	SUB		118.9 ± 7.9			[1980SAC/HIL]
	SUB	(403–473)	100.7	438	GC	[1978BUB/MAZ]
	SUB		24.3	458		[1977VOL/MAZ]
	SUB		121.7 ± 4.2	298		[1975IRV/RIB2]
	SUB	(383–413)	66.1 ± 3.3	398		[1972FON/POM]
	SUB		23.4			[1965FRA]
	SUB	(417–476)	20.5			[1960BER/TRU, 1965BER/TRU]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		80.2		DTA,TGA	[2009GAI/KUN]
	V	(460–530)	78.7 ± 0.9	298	T	[1986GRI/LAZ]
$C_{16}H_{40}Al_2N_2$	[115381-27-6]	tetramethylbis[μ-[*N*-(1-methylethyl)-2-propanaminto]]dialuminum(III)				
	SUB		99.2		ME	[1988BRA/FAK]
$C_{18}H_{15}Al$	[841-76-9]	Triphenylaluminum				
	SUB	(432–477)	172 ± 5	455	ME,TE	[1984GOV/KAN]
$C_{24}H_{12}AlF_9O_6S_3$	[14054-83-2]	tris(1-(2-thenoyl)-4,4,4-trifluoro-1-,3-butanedione)aluminum(III)				
	SUB		U46.4			[1960BER/TRU, 1965BER/TRU]
$C_{27}H_{18}AlN_3O_3$	[2085-33-8]	tris(8-hydroxyquinolinato)aluminum(III)				
	SUB		137.7		TGA	[1995YAS/TAK]
$C_{30}H_{18}AlF_9O_6$	[14323-12-7]	tris(1-phenyl-4,4,4-trifluoro-1,3-butanedione)aluminum(III)				
	SUB		U55.2			[1960BER/TRU, 1965BER/TRU]
$C_{30}H_{27}AlO_6$	[14376-06-8]	tris(1-phenyl-1,3-butanedionato)aluminum(III)				
	SUB	(462–478)	186.8 ± 2.1	470	ME,TE	[1995RIB/MON2]
	SUB	(462–478)	195.2 ± 2.1	298	ME,TE	[1995RIB/MON2]
	SUB		193.7 ± 0.3	298	C	[1983RIB/REI]
$C_{30}H_{30}F_{21}AlO_6$	[18716-26-2]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)aluminum(III)				
	SUB	(363–398)	71.1 ± 2.5	381		[1972FON/POM]
$C_{32}H_{16}AlClN_8$	[14154-42-8]	Aluminum(III)-(phthalocyaninato)chloro complex				
	SUB	(588–703)	236.4 ± 1.7		ME	[2000SEM/BAS]
$C_{32}H_{16}AlFN_8$	[51961-93-4]	Aluminum(III)-(phthalocyaninato)fluoro complex				
	SUB	(658–768)	266.9 ± 2.5		ME	[2000SEM/BAS]
$C_{33}H_{57}AlO_6$	[14319-08-5]	tris(2,2,6,6-tetramethyl-3,5-heptanedionato)aluminum(III)				
	SUB		109.6		ME	[2011ZHU/KRA]
	SUB	(341–412)	119.1 ± 3.1	376	ME	[2010SID/SID]
	SUB	(413–443)	88		TGA	[2000FAH/BAR]
	SUB		119 ± 3.0			[1977NAG, 1983RIB/REI]
AlB_3H_{12}	[16962-07-5]	Aluminum borohydride				
	V	(231–290)	30.0	260		[1940SCH/SAN]
Am						
$(C_{15}H_3AmF_{18}O_6)$-$2(C_{12}H_{27}O_4P)$	[58760-64-8]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)americium(III)-2(tributylphosphate) complex				
	SUB	(425–511)	133.9 ± 1.7	468	TRM	[1978DAV/TRA]
$(C_{15}H_{12}AmF_9O_6)$-$2(C_{12}H_{27}O_4P)$	[75101-27-8]	tris(1,1,1-trifluoro-2,4-pentanedionato)americium(III)-2(tributylphosphate) complex				
	SUB	(509–545)	222.6 ± 29.2	527	TRM	[1978DAV/TRA]
$C_{24}H_{30}AmF_9O_6$)-$2(C_{12}H_{27}O_4P)$	[75101-26-7]	tris(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)americium(III)-2(tributylphosphate) complex				
	SUB	(438–493)	129.7 ± 23.4	465	TRM	[1978DAV/TRA]
$C_{33}H_{57}AmO_6$	[71817-66-8]	tris(2,2,6,6-tetramethyl-3,5-heptanedionato)americium(III)				
	SUB	(373–423)	200.8		ME	[1979AMA/SAT]
As						
$CAsCl_2F_3S$	[762-86-7]	Dichloro(trifluoromethylthio)arsine				
	V	(293–373)	37.1	333		[1960EME/PUG]
CH_3AsBr_2	[676-70-0]	Methyl dibromoarsine				
	V	(293–333)	49.9	313		[1948RED/CHA2]
CH_3AsCl_2	[593-89-5]	Methyl dichloroarsine				
	V	(273–313)	41.0	293		[1948RED/CHA2]
	V	(256–308)	43.7	282		[1920BAX/BEZ]
CH_3AsF_2	[420-24-6]	Methyl difluorarsine				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(244–350)	35.5	297	MM	[1946LON/EME]
$C_2AsClF_6S_2$	[819-39-6]	Chloro bis(trifluoromethylthio)arsine				
	V	(293–373)	39.6	333		[1960EME/PUG]
$C_2H_2AsCl_3$	[34461-56-8]	(*cis*-2-chlorovinyl)dichloroarsine				
	V	(341–382)	46.9	361		[1948WHI]
$C_2H_2AsCl_3$	[50361-05-2]	(*trans*-2-chlorovinyl)dichloroarsine				
	FUS	(13–330)	17.1	270.7	AC	[1996LEB/KUL]
	V	(323–423)	54.5	338		[1950MAT/SUM]
$C_2H_2AsCl_3$	[541-25-3]	2-chlorovinyldichloroarsine				
	V	(293–333)	53.4	313		[1948RED/CHA2]
	V	(340–383)	52.7			[1947GOU/HOL]
$C_2H_2AsF_6N$	[1648-73-3]	(amino) bis(trifluoromethyl)arsine				
	V	(313–358)	31.8	335		[1959CUL/EME]
$C_2H_5AsCl_2$	[598-14-1]	Ethyl dichloroarsine				
	V	(293–333)	44.6	313		[1948RED/CHA2]
$C_2H_5AsF_2$	[430-40-0]	Ethyl difluorarsine				
	V	(248–367)	33.9	307	MM	[1946LON/EME]
$C_2H_7AsO_2$	[75-60-5]	Hydroxydimethyl arsine oxide				
	FUS		24.46	470.8	DSC	[1990DON/DRE]
C_3AsF_9	[432-02-0]	tris(trifluoromethyl)arsine				
	V		29.2			[1952BRA/EME2]
C_3AsF_9S	[75-60-5]	bis(trifluoromethyl) trifluoromethylthioarsine				
	V	(263–312)	34	287		[1962EME/PAC]
C_3AsF_9Se	[816-45-5]	bis(trifluoromethyl) trifluoromethylselenoarsine				
	V	(227–295)	34.8	261		[1962EME/PAC]
$C_3H_4AsF_6N$	[684-21-9]	(methylamino) bis(trifluoromethyl)arsine				
	V	(293–355)	34.9	324		[1959CUL/EME]
$C_3H_7AsCl_2$	[926-53-4]	Propyl dichloroarsine				
	V	(293–333)	49.2	313		[1948RED/CHA2]
C_3H_9As	[593-88-4]	Trimethyl arsine				
	FUS	(13–310)	8.96	186.6	AC	[1988NIS/SHE]
	V	(240–280)	27.7 ± 0.2	260		[2001BAE]
	V	(258–268)	28.3	263		[1988KAY/HEI]
	V		28.9 ± 1.3			[1956LON/SAC, 1982PIL/SKI]
	V		29.9			[1955LON/SAC2]
	V		27.9			[1940ROS/SAN]
$C_3H_9AsO_3$	[6596-95-8]	Trimethyl arsenite				
	V	(300–335)	42.3 ± 1.3	298		[1953CHA/MOR, 1970COX/PIL]
$C_4As_4F_{12}$	[7547-15-1]	tetrakis(trifluoromethyl)tetraarsetane				
	SUB	(317–354)	76.6	335		[1966COW/BUR]
$C_4HAs_2F_{12}N$	[3892-55-5]	Iminobis[bis(trifluoromethyl)arsine]				
	V	(357–398)	38.9	377		[1959CUL/EME]
$C_4H_6AsF_6N$	[1537-49-1]	(ethylamino) bis(trifluoromethyl)arsine				
	V	(292–368)	32.8	330		[1959CUL/EME]
$C_4H_6AsF_6N$	[1537-48-0]	(dimethylamino) bis(trifluoromethyl)arsine				
	V	(296–358)	35.6	327		[1959CUL/EME]
$C_4H_{11}As$	[692-42-2]	Diethyl arsine				
	V	(281–366)	35.2	273	MM	[2001BAE2]
	V	(281–366)	34.2	298	MM	[2001BAE2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_4H_{11}AsO_2$	[4964-27-6]	Diethylarsinic acid				
	FUS		19.9	411	DTA	[1970SMI/IRG]
$C_4H_{12}AsN$	[30880-19-4]	(dimethylamino) dimethylarsine				
	V	(274–342)	36.7			[1959MOD]
$C_5AsF_{13}Se$	[679-01-6]	Heptafluoropropylseleno bis(trifluoromethyl)arsine				
	V	(277–348)	40.3	312		[1962EME/PAC]
$C_5H_7AsCl_2$	[170135-56-5]	bis(2-chlorovinyl)methylarsine				
	V	(293–333)	55.6	313		[1948RED/CHA2]
$C_5H_{11}AsBr_2$	[64047-02-5]	Pentyl dibromoarsine				
	V	(293–333)	60	313		[1948RED/CHA2]
$C_5H_{15}AsN_2$	[41813-33-6]	bis(dimethylamino) methylarsine				
	V	(273–333)	39.2			[1959MOD]
$C_6H_5AsCl_2$	[696-28-6]	Phenyl dichloroarsine				
	V	(313–333)	58.4	323		[1948RED/CHA2]
	V	(335–529)	48.7	350		[1947STU]
	V	(273–318)	60.6	296		[1920BAX/BEZ]
C_6H_9As	[13652-20-5]	Trivinylarsine				
	V	(295–339)	35.6	310		[1957MAI/SEY, 1984BOU/FRI]
$C_6H_{12}AsN$	[64049-16-7]	Cyano(ethyl)propylarsine				
	V	(293–313)	54.6	303		[1948RED/CHA2]
$C_6H_{15}As$	[617-75-4]	Triethylarsine				
	FUS	(60–300)	11.06	181.8		[1996DOM/HEA, 1972MAS/FAM]
	V	(273–339)	38.1 ± 1.5	306		[2001BAE]
	V	(290–379)	38.5 ± 0.7	334		[2001BAE]
	V	(261–294)	40.9	277		[1988KAY/HEI]
	V		43.1 ± 4.2			[1963LAU/TRO, 1982PIL/SKI]
$C_6H_{15}AsO_2$	[2870-87-3]	Dipropylarsinic acid				
	FUS		22.1	408	DTA	[1970SMI/IRG]
$C_6H_{15}AsO_3$	[3141-12-6]	Arsenic(III) triethoxide				
	V		47.9 ± 1.1		DSC	[1996DES/BRA]
	V	(305–340)	50.6 ± 4.2	298		[1953CHA/MOR, 1970COX/PIL]
$C_6H_{18}AsN_3$	[6596-96-9]	tris(dimethylamino)arsine				
	FUS		13.31	222.6		[2002SHE/KAR]
	V	(288–359)	45.8			[1959MOD]
$C_8H_{12}AsNO_3$		Dimethyl arsanilate				
	V	(288–433)	48.8	303		[1947STU]
$C_8H_{18}AsO_2$	[2850-61-5]	Dibutylarsinic acid				
	FUS		29.5	412	DTA	[1970SMI/IRG]
$C_9H_{21}As$	[57538-64-4]	Triisopropylarsine				
	V	(346–405)	45.2 ± 0.5	376		[2001BAE]
$C_9H_{21}As$	[5852-57-3]	Tripropylarsine				
	FUS		14.6	180		[2002SHE/KAR2]
	V	(314–420)	44.0 ± 0.7	367		[1995BAE/MIK, 2001BAE]
	V	(357–386)	61.5	371		[1931DYK/DAV]
$C_9H_{21}AsO_3$	[15606-91-4]	Arsenic(III) tripropoxide				
	V		51.2 ± 1.8		DSC	[1996DES/BRA]
$C_9H_{21}AsO_3$	[39936-83-9]	Arsenic(III) triisopropoxide				
	V		80.1 ± 0.9		DSC	[1996DES/BRA]
$C_{10}H_{16}AsNO_3$		Diethyl arsanilate				
	V	(311–454)	54.2	326	A	[1987STE/MAL, 1947STU]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{10}AsCl$	[712-48-1]	Diphenylchloroarsin				
	V	(298–348)	63.0	323		[1920BAX/BEZ]
$C_{10}H_{23}AsO_2$	[4964-30-1]	Dipentyl arsenic acid				
	FUS		36	405	DTA	[1970SMI/IRG]
$C_{12}H_{27}AsO_2$	[6727-92-0]	Dihexyl arsenic acid				
	TRS		16.4	393		
	FUS		24.35	405	DTA	[1970SMI/IRG]
$C_{12}H_{27}AsO_3$	[3141-10-4]	Arsenic(III) tributoxide				
	V		64.0 ± 1.8		DSC	[1996DES/BRA]
$C_{12}H_{27}AsO_3$	[51587-28-1]	Arsenic(III) triisobutoxide				
	V		75.7 ± 1.2		DSC	[1996DES/BRA]
$C_{13}H_{10}AsN$	[23525-22-6]	Diphenylarsine carbonitrile				
	V	(296–326)	84.6	311	A	[1987STE/MAL]
$C_{14}H_{31}AsO_2$	[6757-53-5]	Diheptyl arsenic acid				
	TRS		30.1	299		
	FUS		20.3	389	DTA	[1970SMI/IRG]
$C_{15}H_{30}AsN_3S_6$	[17767-20-3]	tris(*N*,*N*-diethyldithiocarbamate)arsenic(III)				
	SUB		124 ± 3	298		[1987AIR/DES]
$C_{15}H_{33}As$	[5852-59-5]	Tripentylarsine				
	V	(408–466)	62.3	432		[1932JON/DYK]
$C_{18}AsF_{15}$	[1259-34-3]	tris(pentafluoropheny)arsine				
	FUS		26.5	380.1	DSC	[2008ZEL/CHU]
$C_{18}H_{15}As$	[603-32-7]	Triphenylarsine				
	SUB		98.3 ± 8.4			[1982PIL/SKI, 1964MOR/SEL]
	V	(493–563)	75.7	508	A	[1987STE/MAL, 1949FOR/BOW]
$C_{18}H_{15}AsO$	[1153-05-5]	Triphenylarsine oxide				
	SUB		149.0 ± 5.4			[1994LIE/MAR]
$C_{18}H_{39}AsO_2$	[6727-94-2]	Dinonyl arsenic acid				
	TRS		24.3	383		
	FUS		38.1	399	DTA	[1970SMI/IRG]
$C_{19}H_{37}AsO_7$	[155325-38-5]	(*R*)-l,2-dicapryloxypropyl-3-arsonic acid				
	FUS		41.8	347.7	DSC	[1993SER/SOT]
$C_{19}H_{37}AsO_7$	[155325-39-6]	(*S*)-1,2-dicapryloxypropyl-3-arsonic acid				
	FUS		37.66	346.7	DSC	[1993SER/SOT]
$C_2H_{43}AsO_2$	[6727-95-3]	Di-*n*-decylarsinic acid				
	TRS		24.5	380		
	FUS		42.3	400	DTA	[1970SMI/IRG]
$C_{21}H_{42}AsN_3S_6$	[86431-46-1]	tris(dipropyldithiocarbamate)arsenic(III)				
	SUB		145.1 ± 5.3	298	DSC,E	[1999NEV/GOU]
$C_{22}H_{47}AsO_2$	[6727-96-4]	Di-*n*-undecyl arsenic acid				
	TRS		30.1	384		
	FUS		45.1	396	DTA	[1970SMI/IRG]
$C_{23}H_{45}AsO_7$	[155325-40-9]	(*R*)-1,2-dicaproxypropyl-3-arsonic acid				
	FUS		68.2	358.3	DSC	[1993SER/SOT]
$C_{23}H_{45}AsO_7$	[155325-41-0]	(*S*)-1,2-dicaproxypropyl-3-arsonic acid				
	FUS		54.39	358.5	DSC	[1993SER/SOT]
$C_{24}H_{51}AsO_2$	[6727-97-5]	Di-*n*-dodecyl arsenic acid				
	TRS		31.4	385		
	FUS		49.4	398	DTA	[1970SMI/IRG]
$C_{26}H_{55}AsO_2$	[6727-98-6]	Di-*n*-tridecyl arsenic acid				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	TRS		36.5	388		
	FUS		52.7	396	DTA	[1970SMI/IRG]
$C_{27}H_{53}AsO_7$	[155325-42-1]	(*R*)-1,2-dilauryloxypropyl-3-arsonic acid				
	FUS		76.99	364.9	DSC	[1993SER/SOT]
$C_{27}H_{53}AsO_7$	[155325-43-2]	(*S*)-1,2-dilauryloxypropyl-3-arsonic acid				
	FUS		65.69	363.3	DSC	[1993SER/SOT]
$C_{27}H_{54}AsN_3S_6$	[48233-55-2]	tris(*N*,*N*-dibutyldithiocarbamate)arsenic(III)				
	SUB		128 ± 3	298		[1994LIE/MAR]
$C_{27}H_{54}AsN_3S_6$	[41582-74-5]	tris(*N*,*N* diisobutyldithiocarbamate)arsenic(III)				
	SUB		128 ± 2	298	DSC,E	[1997DES/DES]
$C_{28}H_{59}AsO_2$	[6727-99-7]	Di-*n*-tetradecyl arsenic acid				
	TRS		39.3	390		
	FUS		58.2	397	DTA	[1970SMI/IRG]
$C_{30}H_{63}AsO_2$	[6757-54-6]	Di-*n*-pentadecyl arsenic acid				
	TRS		46.4	390		
	FUS		63.6	396	DTA	[1970SMI/IRG]
$C_{31}H_{61}AsO_7$	[146863-97-0]	(*R*)-1,2-dimyristoyloxypropyl-3-arsonic acid				
	FUS		289.5	373.7	DSC	[1992SER/TSI]
$C_{31}H_{61}AsO_7$	[146863-98-1]	(*S*)-1,2-dimyristoyloxypropyl-3-arsonic acid				
	FUS		267.8	374.7	DSC	[1992SER/TSI]
$C_{32}H_{67}AsO_2$	[6728-00-3]	Di-*n*-hexadecyl arsenic acid				
	TRS		47.4	389		
	FUS		66.8	395	DTA	[1970SMI/IRG]
$C_{34}H_{71}AsO_2$	[6728-01-4]	Di-*n*-heptadecyl arsenic acid				
	TRS		50.9	390		
	FUS		68.6	393	DTA	[1970SMI/IRG]
$C_{35}H_{69}AsO_7$	[146863-99-2]	(*R*)-1,2-dipalmitoyloxypropyl-3-arsonic acid				
	FUS		250.6	377.3	DSC	[1992SER/TSI]
$C_{35}H_{69}AsO_7$	[146864-00-8]	(*S*)-1,2-dipalmitoyloxypropyl-3-arsonic acid				
	FUS		206.3	377.2	DSC	[1992SER/TSI]
$C_{36}H_{75}AsO_2$	[6728-02-5]	Di-*n*-octadecyl arsenic acid				
	FUS		128.9	394	DTA	[1970SMI/IRG]
$C_{38}H_{79}AsO_2$	[6728-03-6]	Di-*n*-nonadecyl arsenic acid				
	FUS		144	393	DTA	[1970SMI/IRG]
$C_{39}H_{77}AsO_7$	[146864-01-9]	(*R*)-1,2-distearoyloxypropyl-3-arsonic acid				
	FUS		274.9	382.8	DSC	[1992SER/TSI]
$C_{39}H_{77}AsO_7$	[146864-02-0]	(*S*)-1,2-distearoyloxypropyl-3-arsonic acid				
	FUS		180.3	382.4	DSC	[1992SER/TSI]
$C_{40}H_{83}AsO_2$	[6728-04-7]	Di-*n*-eicosanyl arsenic acid				
	TRS		40.0	383		
	FUS		76.9	393	DTA	[1970SMI/IRG]
$AsCl_3$	[7784-34-1]	Arsenic trichloride				
	FUS	(18–273)	11.26	254.5	AC	[1987GIB/GUS]
	V	(293–343)	42.5 ± 0.6			[1978CHU/KOV]
	V	(273–323)	41.3	298		[1920BAX/BEZ]
AsF_3	[7784-35-2]	Arsenic trifluoride				
	V		35.8	293		[1941RUS/RUN]
AsH_3	[7784-42-1]	Arsine				
	TRS	(15–207)	0.55	105.6		
	FUS	(15–207)	1.20	156.2		[1955SHE/GIA]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(135–156)	20.2	146		[1937JOH/PEC]
	V		16.7	210		[1955SHE/GIA]
	V	(161–210)	17.4	186		[1937JOH/PEC]
AsH_3I_2Si	[119277-34-8	Diiodosilylarsine				
	V	(294–381)	38.5		SG	[1955AYL/EME]
As_2S_2	[1303-32-8]	Arsenic(II) sulfide				
	V	(663–838)	69.6	750		[1968KUA/UST]
Au						
$C_7H_6AuNS_2$	[93166-53-1]	Dimethygold(III) diethyldithiocarbamate				
	V	(323–363)	88.3 ± 1.8	343	ME	[2011TUR/ZHA]
$C_7H_{10}AuF_3O_2$	[63470-53-1]	Dimethyl(1,1,1-trifluoro-2,4-pentanedionato)gold(III)				
	SUB	(265–300)	83.5			[2001OHT/CIC]
$C_8H_{18}Au_2F_6O_4$	[1095578-82-7]	Tetramethylbis[μ-2,2,2-trifluoroacetato]digold				
	SUB	(296–325)	103.6 ± 2.9		ME	[2008BES/MOR]
$C_8H_{18}Au_2O_4$	[1067677-78-4]	bis[(μ-acetato)dimethylgold]				
	SUB	(291–332)	100.9 ± 0.8	312	ME	[2007BES/BAI, 2008BES/MOR, 2007BES/MOR]
$C_{11}H_{12}AuNO$	[21158-63-4]	Dimethyl(8-quinolinolato)gold				
	SUB	(353–388)	121.2 ± 1.9		ME	[2008BES/MOR2]
$C_{11}H_{12}AuNS$	[1135482-91-5]	Dimethyl(8-mercaptoquino)gold				
	SUB	(359–418)	120.5 ± 1.7		ME	[2008MOR/ZHE]
$C_{14}H_{30}Au_2O_4$	[1067677-79-5]	bis[μ-(2,2-dimethylpropanoato]tetramethyldigold				
	SUB	(295–323)	109.1 ± 2.1		ME	[2008BES/MOR, 2007BES/MOR]
$C_{18}H_{22}Au_2O_4$	[1095578-84-9]	bis[μ-(benzoate)]tetramethyldigold				
	SUB	(363–403)	154.5 ± 1.5		ME	[2008BES/MOR]
$C_{20}H_{34}AuO_9PS$	[34031-32-8]	5-triethylphospine gold-2,3,4,6-tetra-*O*-acetyl-1-thio-β-(*d*)-glucopyranoside (auranofin)				
	FUS		37.82	385	DSC	[1985LIN/RAT]
B						
CH_3BO	[13205-44-2]	Borine carbonyl				
	V	(134–209)	19.7	194		[1947STU]
(CH_3N)-(BH_3)	[1722-33-4]	Methylamine–borane complex				
	SUB	(273–318)	78.7 ± 4.2		ME	[1959ALT/BRO]
CH_5BO_2	[13061-96-6]	Dihydroxymethylborane				
	SUB	(293–362)	64.1	308	A	[1987STE/MAL]
	SUB	(298–338)	65.2	318		[1940BUR]
(CH_5N)-$(C_3H_9BO_3)$	[89925-29-1]	Methylamine–trimethylborate complex				
	SUB		58.2			[1951GOU/LIN]
$CH_{11}B_5$	[19495-55-7]	1-methylpentaborane (9)				
	V	(241–349)	32.7	295		[1963RYS/HAR]
C_2BF_5	[32038-87-2]	Perfluorovinyldifluoroborine				
	V	(177–238)	26.6	207	T	[1960STA/STO]
$C_2BCl_2F_3$	[758-99-6]	Perfluorovinyldichloroborine				
	V	(238–301)	31.5	269	T	[1960STA/STO]
$C_2H_3BF_2$	[358-95-2]	Vinyldifluoroborane				
	V	(178–228)	22.6	203	T	[1960BRI/STO]
$C_2H_3BCl_2$	[3677-80-3]	Vinyldichloroborane				
	V	(237–282)	27.7	260	T	[1960BRI/STO]
(C_2H_3OF)-(BF_3)	[353-44-6]	Methylfluorocarbonyl-trifluoroboron complex				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(223–273)	26.3	248		[1957SUS/WUH]
$C_2H_5BCl_2O$	[16339-28-9]	Ethoxydichloroborane				
	V		35.1 ± 0.8	298		[1931WIB/SUT, 1970COX/PIL]
$(C_2H_5B_3)$-(C_3H_9N)		1,5-dicarbopentaborane(5)–trimethylamine complex				
	SUB	(220–253)	49.7	236		[1972BUR/REI]
$C_2H_6BCl_2N$	[1113-31-1]	Dimethylaminodichloroborane				
	V		37.2 ± 1.3	298		[1951BUR/RAN, 1970COX/PIL]
$C_2H_6BF_2N$	[359-18-2]	Dimethylaminodifluoroborane				
	SUB	(308–353)	76.5	333		[1954BUR/BAN]
$C_2H_6B_4$	[20693-67-8]	1,6-dicarbahexaborane				
	SUB	(190–209)	31.2	198	A	[1987STE/MAL]
	V	(241–287)	26.2	272		[1963SHA/KEI]
(C_2H_6O)-(BF_3)	[353-42-4]	Dimethyl ether–boron trifluoride complex				
	V	(311–346)	53.1	328		[1960MCL/TAM]
$C_2H_6ClBO_2$	[868-81-5]	Dimethoxychloroborane				
	V		34.3 ± 1.2	298		[1931WIB/SUT, 1970COX/PIL]
(C_2H_6S)-(BH_3)	[13292-87-0]	Dimethyl sulfide – borane complex				
	V	(273–314)	44.9	293		[1999DYK/SVO]
$C_2H_7B_5$	[20693-69-0]	2,4-dicarba-closo-heptaborane				
	V	(273–323)	31.6	288	I	[1976SHM/SHL]
(C_2H_7N)-(BH_3)	[74-94-2]	Dimethylamine–borane complex				
	SUB	(273–308)	77.4 ± 2.9		ME	[1969KEI/KAN]
(C_2H_7N)-$(C_3H_9BO_3)$	[122703-23-5]	Dimethylamine–trimethylborate complex				
	SUB		70.3			[1951GOU/LIN]
C_2H_8BSb	[60646-39-1]	Dimethylstibinoborine				
	V	(234–273)	32.1	254		[1959BUR/GRA]
$C_2H_{10}BP$	[4268-35-3]	Dimethylphosphine borine				
	V	(303–383)	45.1	318		[1953HER/MAR]
$C_2H_{11}B_2N$	[23273-02-1]	*N*-dimethylaminodiborane				
	FUS		1.41	218		[1955FUR/MCC]
	V	(220–267)	29.3	252		[1955FUR/MCC]
$C_2H_{12}B_{10}$	[16872-09-6]	1,2-dicarbadodecaborane (*o*-carborane)				
	TRS	(5–310)	0.6	160		
	TRS	(5–310)	3.77	275	AC	[2003YAM/HAY]
	SUB	(283–333)	50.3	318	A	[1987STE/MAL]
	SUB	(333–423)	49.4	348	A	[1987STE/MAL]
	SUB		65.4 ± 1.0	298		[1982PIL/SKI, 1976MIR/PAV]
$C_2H_{12}B_{10}$	[16986-24-6]	1,7-dicarbadodecaborane (*m*-carborane)				
	TRS	(5–310)	2.61	170		
	TRS	(5–310)	4.41	284	AC	[2003YAM/HAY]
	SUB	(283–333)	67.5	298	A	[1987STE/MAL]
	SUB	(333–423)	63.3	348	A	[1987STE/MAL]
	SUB		58.5 ± 1.0	298		[1982PIL/SKI, 1976MIR/PAV]
$C_2H_{12}B_{10}$	[20644-12-6]	1,12-dicarbododecaborane (*p*-carborane)				
	SUB		61.3 ± 1.0	298		[1982PIL/SKI, 1976MIR/PAV]
$C_2H_{13}B_5$	[23753-61-9]	1-ethylpentaborane (9)				
	V	(273–383)	35.0	328		[1963RYS/HAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_3BF_9S_3$	[36884-78-3]	tris(trifluoromethylthio)borane				
	V	(242–298)	33.9	270		[1999DYK/SVO]
$C_3H_5BF_2$	[819-69-2]	(allyl)difluoroborane				
	V	(194–249)	28	221	T	[1960BRI/STO]
$C_3H_7BF_2$	[691-36-1]	(propyl)difluoroborane				
	V	(195–248)	29.4	221	T	[1960BRI/STO]
(C_3H_7N)-(BH_3)	[105795-87-7]	Azetidine–borane complex				
	SUB	(297–321)	67.9	309		[1956BUR/GOO]
$C_3H_9BO_3$	[121-43-7]	Trimethylborate				
	V	(304–340)	34.2	319		[1967CHR/SHI]
C_3H_9B	[593-90-8]	Trimethylborane				
	FUS		3.25	113.2		[1996DOM/HEA, 1954FUR/PAR]
	V		20.2 ± 0.1			[1961JOH/KIL, 1961SCO/MES]
	V		23.9		BG	[1946BAM/LEV]
(C_3H_9B)-(C_2H_9NSi)		Trimethylboron–silyldimethylamine complex				
	SUB	(243–268)	51.4	255		[1954SUJ/WIT]
(C_3H_9B)-$(C_7H_{13}N)$	[36578-88-8]	Trimethylboron–azabicyclo[2.2.2]octane complex				
	SUB	(273–388)	79.6			[1948BRO/SUJ]
C_3H_9BS	[19163-05-4]	Dimethyl(methylthio)borane				
	V	(227–304)	31.6	265		[1999DYK/SVO]
$C_3H_9BS_2$	[19163-08-7]	Methylbis(methylthio)borane				
	V	(300–373)	44.7	315		[1999DYK/SVO]
$C_3H_9BS_3$	[997-49-9]	tris(methylthio)borane				
	V	(325–462)	44.9	394		[1999DYK/SVO]
	V	(303–493)	51.6	398		[1967FIN/GAR2]
	V	(303–493)	54.0 ± 0.8	298		[1967FIN/GAR2]
$C_3H_9B_3Cl_3N_3$	[703-86-6]	2,4,6-trichloro-1,3,5-trimethylborazine				
	SUB	(363–404)	57.9	383.5		[1987STE/MAL, 1950BUR/KUL]
$C_3H_9B_3O_3$	[823-96-1]	Methylboric acid anhydride				
	V	(273–327)	37.4	288		[1940BUR]
(C_3H_9N)-(BF_3)	[420-20-2]	Trimethylamine–boron trifluoride complex				
	SUB	(373–413)	68.9	393	A	[1987STE/MAL, 1943BUR3]
(C_3H_9N)-(B_2F_4)	[3801-72-7]	Trimethylamine–diboron tetrafluoride (tetramer)				
	SUB	(366–399)	65.1	382		[1958FIN/SCH]
(C_3H_9N)-(BH_3)	[75-22-9]	Trimethylamine–borane complex				
	SUB	(273–363)	56.9 ± 0.8		ME	[1959ALT/BRO]
	SUB	(296–367)	57.0	311	A	[1987STE/MAL, 1937BUR/SCH]
(C_3H_9N)-(CH_6O_3B)		Trimethylamine-methylborate adduct				
	SUB		44.0			[1956HOR/GOU]
(C_3H_9N)-$(C_3H_6BCl_2N)$		Trimethylamine–dimethylaminoboron dichloride complex				
	SUB	(293–342)	66.1 ± 1.7	317		[1952BRO/OST]
$C_3H_{10}BN$	[4023-40-9]	*N*-methylaminodimethylborane				
	SUB		56.9 ± 0.8	298		[1988GOL/SIT, 1966GOO/MAN]
$C_3H_{12}BN$	[75-22-9]	Borine trimethylamine				
	V	(136–195)	19.9	180		[1937BUR/SCH]
$C_3H_{12}B_{10}O_2$	[18178-04-6]	*o*-carboranecarboxylic acid				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		97.0 ± 1.7	298		[1982PIL/SKI, 1970GAL/MAR]
$C_3H_{12}B_{10}O_2$	[18581-81-2]	*m*-carboranecarboxylic acid				
	SUB		97.7 ± 0.7	298		[1982PIL/SKI, 1970GAL/MAR]
$C_3H_{12}B_{10}O_2$	[23087-98-1]	*p*-carboranecarboxylic acid				
	SUB		96.3 ± 0.7	298		[1982PIL/SKI, 1970GAL/MAR]
$C_3H_{14}B_{10}$	[16872-10-9]	Methyl-*o*-carborane				
	SUB		63.8 ± 0.6	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{14}B_{10}O$	[19610-34-5]	Hydroxymethyl-*o*-carborane				
	SUB		77.0 ± 1.3	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{14}B_{10}O$	[53257-04-8]	Hydroxymethyl-*m*-carborane				
	SUB		78.3 ± 1.3	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{14}B_{10}O$	[35795-98-3]	Hydroxymethyl-*p*-carborane				
	SUB		83.9 ± 1.3	298		[1982PIL/SKI, 1976MIR/PAV]
$C_3H_{15}B_5$	[37838-05-4]	1-isopropylpentaborane (9)				
	V	(273–398)	37.2	335		[1963RYS/HAR]
C_4BClF_6	[669-89-6]	bis(perfluorovinyl)chloroborine				
	V	(280–322)	35.6	301	T	[1960STA/STO]
C_4H_6BCl	[10147-89-4]	Divinylchloroborane				
	V	(275–298)	33.0	286	T	[1960BRI/STO]
C_4H_6BF	[1537-50-4]	Divinylfluoroborane				
	V	(193–273)	25.8	233	T	[1960BRI/STO]
$(C_4H_{10}O)$-(BF_3)	[109-63-7]	Diethyl ether – boron trifluoride complex				
	V	(283–353)	55.1	318		[1960MCL/TAM]
$C_4H_{10}BClO_2$	[20905-32-2]	Diethoxychloroborane				
	V		38.9 ± 0.8	298		[1931WIB/SUT, 1970COX/PIL]
$C_4H_{10}BCl_2N$	[868-30-4]	1,1-dichloro-*N*,*N* diethylboranamine				
	V		39.7			[1952OST/BRO]
$C_4H_{11}BO_2$	[4426-47-5]	Dihydroxy-*n*-butylborane				
	SUB	(303–340)	69.9 ± 0.8	321	BG	[1956MAT/ERI]
$(C_4H_{11}N)$-(C_3H_9B)		*N*,*N*-dimethylethylamine – trimethylborane complex				
	V	(303–339)	58.2	321		[1960KAE/STO]
$C_4H_{12}BClN_2$	[6562-41-0]	bis(dimethylamino)chloroborane				
	V		41.8 ± 2.1	298		[1951BUR/RAN, 1970COX/PIL]
$C_4H_{12}B_2Br_4N_2$	[25928-66-9]	Dibromo(dimethylamino)borane dimer				
	SUB		87.4 ± 22.2		BG	[1983SPI/KOL]
$C_4H_{12}B_2O_4$	[7318-94-7]	Tetramethoxydiboron				
	V		44.7			[1972FIN/GAR]
	V	(273–348)	44.0	310		[1960BRO/MCC]
$(C_4H_{12}GeO)$-(BF_3)		Trimethylmethoxygermane – boron trifluoride complex				
	SUB	(289–306)	59.5	297	SG	[1961GRI/ONY]
$C_4H_{13}BN_2$	[2386-98-3]	bis(dimethylamino)borane				
	V	(288–336)	32.3	312		[1948WIB/BOL]
$C_4H_{16}B_{10}$	[17032-21-2]	Dimethyl-*o*-carborane				
	SUB		65.3 ± 07	298		[1982PIL/SKI, 1976MIR/PAV]
$C_4H_{17}B_5$		1-*sec*-butylpentaborane (9)				
	V	(299–428)	41.4	364		[1963RYS/HAR]
$C_4H_{18}B_4N_2$		1,4-piperazinediyl bis(diborane(6))				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(318–346)	63.9	332		[1968BUR/IAC]
(C_5H_5N)-(BBr_3)	[3022-54-6]	Boron tribromide–pyridine complex				
	SUB	(523–602)	65.8 ± 0.2		T	[1989GRI/KON]
	SUB		105.5 ± 1.1	393	C	[1989GRI/KON]
$(C_5H_{10}O)$-(BF3)	[407-77-2]	Tetrahydopyran – boron trifluoride complex				
	V	(323–368)	60.9	345		[1960MCL/TAM2]
$(C_5H_{11}N)$-(BCl_3)	[592-39-2]	Piperidine–boron trichloride complex				
	SUB		76.1		GS	[1960GRE/WAD]
$(C_5H_{11}N)$-(BH3)	[4856-94-4]	Piperidine–borane complex				
	SUB	(342–380)	87.8	361		[1956BUR/GOO]
$C_5H_{16}B_{10}$		Isopropenyl-*o*-carborane				
	V	(323–473)	36.7	398		[1963FEI/BOB]
$C_5H_{16}B_{10}O_2$	[19528-60-0]	1-acetoxymethyl-*o*-carborane				
	V		56.5	569		[1974DIT/SKO4]
$C_5H_{19}B_5$	[92400-68-5]	1-methyl-2-*sec*-butylpentaborane				
	V	(301–423)	41.0	362		[1963RYS/HAR]
$C_5H_{21}B_3N_2S$	[37956-18-6]	1,2,3,3,4,4,5,5,6,6-decahydro-1,3,3,5,5-pentamethyl-2*H*-1,3,5,2,4,6- thiadiazatriborine				
	SUB		57.7			[1972BUR]
C_6BF_9	[815-70-3]	tris(perfluorovinyl)borine				
	V	(297–335)	41.1	316	T	[1960STA/STO]
$C_6H_5BBr_2$	[4151-77-3]	Phenylboron dibromide				
	V	(391–433)	43.9 ± 2.1	412	T	[1967FIN/GAR]
$C_6H_5BCl_2$	[873-51-8]	Phenylboron dichloride				
	V	(273–318)	33.7 ± 0.8	296	T	[1967FIN/GAR]
$C_6H_{10}B_2N_4$	[16998-91-7]	Pyrazabole				
	FUS		11.83	354.3	DSC	[1993DOM/SER]
$C_6H_{12}BCl_3O_3$	[22238-19-3]	tris(2-chloroethyl) orthoborate				
	V	(312–363)	52.8	337		[1951MAR/MAK]
	V	(390–448)	57.7	419		[1946JON/THO]
$C_6H_{12}BNO_3$	[283-56-7]	2,8,9-trioxa-5-aza-1-boratricyclo[3.3.3.$0^{1,5}$]undecane				
	TRS		3.67	466.7		
	FUS		7.10	499.4	DSC	[1984WEI/LEF]
	TRS	(320–525)	4.77	466.5		
	FUS	(320–525)	24.10	511.9	AC	[1964CLE/WON]
	SUB		111.9 ± 0.9	418	C	[1984VOR/MIR]
$C_6H_{13}BO_2$	[10173-39-4]	1-butaneboronic acid, cyclic ethylene ester				
	V		40.2	329		[1970FIN/GAR]
$C_6H_{15}B$	[97-94-9]	Triethylborane				
	FUS	(12–322)	11.52	l80.2		[1996DOM/HEA, 1977KOS/SAM]
	FUS		11.85	l80.3		[1996DOM/HEA, 1955FUR]
	V		33.6	293		[1983HOU2]
	V		36.8 ± 0.4			[1963POP/SKI, 1982PIL/SKI]
$C_6H_{15}BO_3$	[150-46-9]	Triethylborate				
	V	(302–382)	41.0	317		[1967CHR/SHI]
	V	(302–382)	38.2	39l		[1967CHR/SHI]
$C_6H_{15}BS_3$	[998-26-5]	Triethylthioborane				
	V		6l.5 ± 2.1			[1966FIN/GAR, 1970COX/PIL]
$C_6H_{15}B_3O_3$	[3043-60-5]	Triethylboroxin				
	V	(347–424)	46.0	362	EB	[1990SPR/GRE]
$C_6H_{16}BN$		(*N*-ethylamino)diethylborane				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		60.7 ± 0.8			[1967SMI/GOO, 1982PIL/SKI]
$C_6H_{17}B_5Br_2Si_2$	[66798-29-6]	2,4-bis(bromodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	V	(388–463)	53.1	403	I	[1979GOL/SHM]
$C_6H_{17}B_5Cl_2Si_2$	[28699-83-4]	2,4-bis(chlorodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	V	(359–439)	46.2	374	I	[1979GOL/SHM]
$C_6H_{18}BN$	[1722-26-5]	Triethylaminoborane				
	V		69.7 ± 0.8			[1967SMI/GOO, 1970COX/PIL]
$C_6H_{18}BN_3$	[4254-92-6]	tris(triethylamino)borane				
	V		46.9 ± 0.8			[1951BUR/RAN, 1970COX/PIL]
$C_6H_{19}B_5Si_2$	[59351-11-0]	2,4-bis(dimethylsilyl)-2,4-dicarba-closo-heptaborane				
	V	(373–453)	41.3	388	I	[1976SHM/SHL]
$C_6H_{20}B_2N_2$	[14102-49-9]	Dimethylaminomethyl borane cyclic dimer				
	V	(311–357)	57.8	314		[1966MIL/MUR]
$C_6H_{20}B_{10}$	[23835-38-3]	1-butyl-*o*-carbaborane (12)				
	V	(433–534)	77.3 ± 3.8	298	EB	[1980SHU/VAR]
	V	(433–534)	50.6 ± 1.3	571	EB	[1980SHU/VAR]
$C_6H_{20}B_{10}$	[51952-46-6]	1-isobutyl-*o*-carbaborane (12)				
	V	(427–536)	72.8 ± 2.1	298	EB	[1980SHU/VAR]
	V	(427–536)	49.1 ± 0.9	564	EB	[1980SHU/VAR]
$C_6H_{20}B_{10}$	[70312-25-3]	1-butyl-*m*-carbaborane (12)				
	V	(406–527)	67.7 ± 0.8	298	EB	[1980SHU/VAR]
	V	(406–527)	46.7 ± 0.6	537	EB	[1980SHU/VAR]
$C_6H_{20}B_{10}$		1-isobutyl-*m*-carbaborane (12)				
	V	(400–488)	64.1 ± 2.8	298	EB	[1980SHU/VAR]
	V	(400–488)	44.6 ± 1.3	532	EB	[1980SHU/VAR]
$C_7H_7BCl_2$	[4250-45-7]	*p*-tolyldichloroborane				
	FUS		4.39	301		[1973FIN/GAR]
(C_7H_9N)-(BH3)		2,6-dimethylpyridine–borane complex				
	SUB	(358–378)	83.8	368	T	[1956BRO/DOM]
$C_7H_{14}BNO_3$	[283-62-5]	2,9,10-trioxa-5-aza-1-boratricyclo[4.3.3.$0^{1,6}$]dodecane				
	SUB		105.2 ± 0.6	390	C	[1984VOR/MIR]
$C_7H_{15}BO_2$	[30169-71-2]	1-butaneboronic acid, cyclic trimethylene ester				
	V		43.1	348		[1970FIN/GAR]
$C_7H_{15}B_3F_3N_3$	[20453-68-3]	1,2,3,4,5-pentamethyl-6-(trifluorovinyl)borazaine				
	V	(280–324)	18.4	302		[1999DYK/SVO]
$C_7H_{22}B_{10}$	[75482-33-6]	1-pentyl-*o*-carbaborane (12)				
	V	(446–549)	84.3 ± 6.0	298	EB	[1980SHU/VAR]
	V	(446–549)	52.0 ± 1.5	571	EB	[1980SHU/VAR]
$C_7H_{22}B_{10}$	[75482-35-8]	1-pentyl-*m*-carbaborane (12)				
	V	(421–544)	74.6 ± 2.4	298	EB	[1980SHU/VAR]
	V	(421–544)	48.6 ± 0.8	555	EB	[1980SHU/VAR]
$C_8H_{12}B_2Cl_6O_5$		1,3-diethyl-1,3-bis(trichloroacetoxy)-1,3-diboroxane				
	FUS		24.22	327.2	DSC	[1995DAB/DOM]
$C_8H_{16}BNO_3$	[283-64-7]	2,10,11-trioxa-5-aza-1-boratricyclo[4.4.3.$0^{1,6}$]tridecane				
	SUB		102.2 ± 1.0	390	C	[1984VOR/MIR]
$C_8H_{16}B_2O_5$	[111849-46-8]	1,3-diacetoxy-1,3-diethyl-1,3-diboroxane				
	FUS		21.6	377.2	DSC	[1995DAB/DOM]
$C_8H_{17}BO_2$	[31044-62-9]	1-butaneboronic acid, cyclic tetramethylene ester				
	V		76.6	364		[1970FIN/GAR]
$C_8H_{18}BBr$	[5674-70-4]	Dibutylboron bromide				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(293–363)	50.6	328		[1953SKI/TEE]
$C_8H_{18}BCl$	[1730-69-4]	Dibutylboron chloride				
	V	(293–363)	48.2	328		[1953SKI/TEE]
$C_8H_{18}BNO_3$	[283-65-8]	2,10,11-trioxa-5-aza-1-boratricyclo[4.4.4.$0^{1,6}$]tetradecane				
	SUB		97.9 ± 1.0	418	C	[1984VOR/MIR]
$C_8H_{18}B_{10}O_3$	[146959-04-8]	1,2-dicarbadodecaborane(12)-1-carboperoxoic acid 11-dimethyl-2-propynyl ester				
	FUS		16	374		[1999DIB/PIS2]
	SUB	(329–343)	120.7 ± 7.4		ME	[1999DIB/PIS]
$C_8H_{18}B_{10}O_3$	[146959-05-9]	1,7-dicarbadodecaborane(12)-1-carboperoxoic acid 1,1-dimethyl-2-propynyl ester				
	FUS		29.4	360		[1999DIB/PIS2]
	SUB	(317–334)	80.1 ± 6.1		ME	[1999DIB/PIS]
$C_8H_{19}BO_2$	[10394-51-1]	1-butaneboronic acid, diethyl ester				
	V		43.3	346		[1970FIN/GAR]
$C_8H_{20}B_2O$	[7318-84-5]	Tetraethyldiboroxane				
	V	(343–421)	42.9	358	EB	[1990SPR/GRE]
$C_8H_{20}B_2O_4$	[1630-81-5]	Tetraethoxydiboron				
	V	(273–358)	52.9	315		[1960BRO/MCC]
$C_8H_{24}B_2N_4$	[1630-79-1]	Tetra(dimethylamino)diboron				
	V	(296–408)	52.7	352		[1960BRO/MCC2]
$C_8H_{24}B_{10}$	[20740-05-0]	1-hexyl-*o*-carbaborane (12)				
	V		86.2 ± 1.4	298		[1982PIL/SKI, 1978GAL/PAV]
	V	(458–530)	93.5 ± 6.0	298	EB	[1980SHU/VAR]
	V	(458–530)	54.1 ± 2.1	601	EB	[1980SHU/VAR]
$C_8H_{24}B_{10}$	[75482-36-9]	1-hexyl-*m*-carbaborane (12)				
	V	(434–544)	79.8 ± 2.4	298	EB	[1980SHU/VAR]
	V	(434–544)	50.7 ± 1.0	572	EB	[1980SHU/VAR]
$C_8H_{23}B_5Si_2$	[59351-10-9]	2,4-bis(trimethylsilyl)-2,4-dicarba-closo-heptaborane				
	V	(373–473)	45.0	388	I	[1976SHM/SHL]
$C_9H_{11}BO_2$	[4406-77-3]	Benzeneboronic acid, cyclic trimethylene ester				
	V		47.3	426		[1970FIN/GAR]
$C_9H_{15}BCI_6O_3$		tris(2,2′-dichloroisopropyl) orthoborate				
	V	(488–513)	77.0	465		[1946JON/THO]
$C_9H_{21}B$	[1116-61-6]	Tripropylborane				
	V		41.8 ± 1.3			[1963GAL/VAR, 1982PIL/SKI]
	V	(273–393)	40.0		BG	[1946BAM/LEV]
$C_9H_{21}B$	[1776-66-5]	Triisopropylborane				
	V		41.8 ± 1.3			[1963GAL/VAR, 1982PIL/SKI]
	V	(273–393)	40.0		BG	[1946BAM/LEV]
$C_9H_{21}BO_3$	[688-71-1]	Tripropylborate				
	V	(340–453)	52.3	355		[1980THO/SMI]
	V	(358–452)	47.6	452		[1967CHR/SHI]
$C_9H_{21}BO_3$	[5419-55-6]	Triisopropylborate				
	V	(338–412)	42.4	412		[1967CHR/SHI]
$C_9H_{21}BS_3$	[998-38-9]	Tri(propylthio)borane				
	V	(423–483)	76.2	453		[1967FIN/GAR2]
	V	(423–483)	87.0 ± 2.1	298		[1967FIN/GAR2]
$C_9H_{22}BNO$		Butyl(dimethylamino)methoxyborane				
	V	(369–427)	48.1	384	EB	[1973GAL/BRY]
	V	(369–427)	58.2 ± 2.5	298	EB	[1973GAL/BRY]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{10}H_{13}BO_2$	[4406-76-2]	Benzeneboronic acid, cyclic tetramethylene ester				
	V		57.3	441		[1970FIN/GAR]
$C_{10}H_{15}BO_2$	[31044-59-4]	Benzeneboronic acid, diethyl ester				
	V		67.4	332		[1970FIN/GAR]
$C_{11}H_{24}B_{10}O_3$		3-methyl-3-(7-isopropyl-*m*-carboranoylperoxy)-1-butyne				
	V	(353–368)	140.6 ± 4.4	360	ME	[1999DIB/PIS2]
$C_{11}H_{24}B_{10}O_3$	[146959-06-0]	1,2-dicarbadodecaborane(12)-1-carboperoxoic acid 2-(1-methylethyl)-1,1- dimethyl-2-propynyl ester				
	SUB	(345–362)	125.1 ± 7.0		ME	[1999DIB/PIS]
$C_{11}H_{24}B_{10}O_3$		1,7-dicarbadodecaborane(12)-1-carboperoxoic acid, 7-(1-methylethyl)-1,1-dimethyl-2-propynyl ester				
	FUS		32.4	368		[1999DIB/PIS2]
$C_{12}H_{10}BBr$	[5123-17-1]	Diphenylboron bromide				
	V	(436–516)	60.2 ± 2.5	476	T	[1967FIN/GAR]
$C_{12}H_{10}BCl$	[3677-81-4]	Diphenylboron chloride				
	V	(363–485)	41.4 ± 2.1	424	T	[1967FIN/GAR]
$C_{12}H_{21}B$	[16664-33-8]	Dodecahydro-9-boraphenalene				
	V	(304–404)	53.1	319	A	[1987STE/MAL]
	V	(294–404)	50.3	349		[1960GRE/MOR]
$C_{12}H_{27}B$	[122-56-5]	Tributylboron				
	V	(293–363)	54.7	328		[1953SKI/TEE]
$C_{12}H_{27}BO_3$	[688-74-4]	Tributylborate				
	V	(380–504)	58.1	395		[1980THO/SMI]
	V	(390–491)	55.9	405		[1967CHR/SHI]
$C_{12}H_{27}BO_3$	[13195-76-1]	Triisobutylborate				
	V	(372–472)	51.7	483		[1967CHR/SHI]
$C_{12}H_{27}BS_3$	[998-46-9]	Tri(butylthio)borane				
	V	(440–503)	83.9	471		[1967FIN/GAR2]
	V	(440–503)	95.8 ± 2.1	298		[1967FIN/GAR2]
$C_{12}H_{30}B_8$	[223268-31-3]	1,10-dipentyl-1,10-dicarbadecaborane				
	FUS		14.7	269.7		[1999DOU/BOT]
$C_{14}H_{26}B_2N_4$	[14695-69-3]	4,4,8,8-tetraethylpyrazabole				
	TRS		28.61	342.4		
	FUS		3.22	379.2	DSC	[1993DOM/SER]
$C_{15}H_{32}B_{10}O_5$	[141695-58-1]	2,5-dimethyl-(2-*tert*-butylperoxy-5-*m*-carboranoylperoxy)-3-hexyne				
	V	(353–366)	86.8 ± 5.4	360	ME	[1999DIB/PIS2]
$C_{15}H_{33}BO_3$	[621-78-3]	Tripentylborate				
	V	(410–505)	67.7	425		[1980THO/SMI]
$C_{15}H_{33}BS_3$	[1116-74-1]	Tri(pentylthio)borane				
	V	(446–503)	92.3	474		[1967FIN/GAR2]
	V	(446–503)	104.6 ± 2.1	298		[1967FIN/GAR2]
$C_{18}H_{12}BCl_3O_3$	[7359-58-2]	tris(4-chlorophenoxy)borane				
	V	(428–476)	30.6 ± 0.9	452	MM	[1973WIL/FEN]
$C_{18}H_{12}BCl_3O_3$	[42080-72-8]	tris(3-chlorophenoxy)borane				
	V	(476–524)	49.6 ± 1.6	500	MM	[1973WIL/FEN]
$C_{18}H_{15}B$	[960-71-4]	Triphenylborane				
	SUB		103.8 ± 2.5	360	TE,ME	[1984GOV/KAN2]
	SUB		92.1 ± 2.5	298		[1978STE3]
	SUB		81.6 ± 2.1			[1982PIL/SKI, 1967FIN/GAR]
	V	(423–568)	64.3	438	A	[1987STE/MAL]
	V	(423–548)	64.4 ± 2.1	486		[1967FIN/GAR]
$C_{18}H_{33}B$	[1088-01-3]	Tricyclohexylboron				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		81.6 ± 4.2	298		[1982PIL/SKI, 1967FIN/GAR]
$C_{18}H_{34}B_2N_4$	[77189-78-7]	4,4,8,8-tetrapropylpyrazabole				
	FUS		33.0	382.2	DSC	[1993DOM/SER]
$C_{21}H_{12}BN_3O_3$	[42080-77-3]	tris(4-cyanophenoxy)borane				
	V	(448–506)	46.2 ± 2.0	477	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_3$	[14643-62-0]	tris(4-methylphenoxy)borane				
	V	(475–525)	76.1 ± 1.7	500	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_3$	[14750-98-2]	tris(3-methylphenoxy)borane				
	V	(477–523)	77.1 ± 2.2	500	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_6$	[42080-76-2]	tris(3-methoxyphenoxy)borane				
	V	(440–496)	57.8 ± 2.4	468	MM	[1973WIL/FEN]
$C_{21}H_{21}BO_6$	[42080-75-1]	tris(4-methoxyphenoxy)borane				
	V	(448–500)	42.4 ± 2.7	474	MM	[1973WIL/FEN]
$C_{23}H_{24}BNO_2$	[345342-83-8]	4-benzyl-5,6-dimethyl-2,5-diphenyl-1,3-dioxa-4-aza-2-boracyclohexane				
	FUS		13	408.2	DSC	[2001KLI/LUB]
$C_{29}H_{26}BCl_2NO_2$	[345342-96-3]	4-benzhydryl-2,5-di(4′-chlorophenyl)-4,5-dimethyl-1,3-dioxa-4-aza-2-boracyclohexane				
	FUS		23.96	453.2	DSC	[2001KLI/LUB]
[Note: The sample may have experienced partial decomposition as the authors report a mass decrease at melting.]						
$C_{29}H_{28}BNO_2$	[345342-93-0]	4-benzhydryl-5,6-dimethyl-2,5-diphenyl-1,3-dioxa-4-aza-2-boracyclohexane				
	FUS		28.43	431.2	DSC	[2001KLI/LUB]
$C_{31}H_{32}BNO_2$	[345342-82-7]	4-benzhydryl-5,6-dimethyl-2,5-di(4′-methylphenyl)-1,3-dioxa-4-aza-2-boracyclohexane				
	FUS		32.48	453.2	DSC	[2001KLI/LUB]
$C_{33}H_{30}BNO_2$	[345342-99-6]	4-benzhydryl-5,6-dimethyl-2-(1′-naphthyl)-5-phenyl-1,3-dioxa-4-aza-2-boracyclohexane				
	FUS		25.48	454.2	DSC	[2001KLI/LUB]
BBr_3	[10294-33-4]	Boron tribromide				
	V	(273–363)	34.3	298		[1959BAR/BOY]
	V		32.9			[1951NIS/PET]
BH_3O_3	[10043-35-3]	Boric acid				
	SUB	(326–363)	174.1 ± 4.7	345	GS	[2007PAN/ANT]
BH_6N	[13774-81-7]	Ammonia borane				
	SUB		76.3 ± 3.0	357	C	[2014BUT/KON, 2015KON/BUT]
	SUB		77.2 ± 3.1	298	C	[2015KON/BUT]
B_2ClH_5	[17927-57-0]	Chlorodiborane				
	V	(175–251)	22.7	213		[1963MYE/PUT]
B_2D_6	[20396-66-1]	Perdeuterodiborane				
	V	(118–179)	15.3	164		[1961DIT/PER]
B_2F_4	[13965-73-6]	Diboron tetrafluoride				
	SUB	(178–209.5)	35.5	193		[1958FIN/SCH]
B_2H_6	[19287-45-7]	Diborane				
	V	(118–179)	15.3	164		[1961DIT/PER]
	V		14.2	180	C	[1959PAR/MAC]
	V		12.6	210	C	[1959PAR/MAC]
	V		10.5	240	C	[1959PAR/MAC]
	V		7.3	270	C	[1959PAR/MAC]
$B_3Br_3H_3N_3$	[13703-88-3]	2,4,6-tribromoborazine				
	SUB	(347–405)	71.9 ± 3.5	376		[2012KAZ/TIM]
	SUB	(342–395)	86.2 ± 0.4	368	I	[1966LAU/SCA]
	V	(411–450)	47.9 ± 4.0	431		[2012KAZ/TIM]
	V	(404–415)	47.0 ± 5.1	409	I	[1966LAU/SCA]
$B_3Cl_3H_3N_3$	[933-18-6]	2,4,6-trichloroborazine				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(303–353)	70.5 ± 0.4		I	[1966LAU/SCA]
	SUB	(313–357)	71.1			[1955BRO/LAU]
	V	(363–409)	49.6 ± 0.2	386	I	[1966LAU/SCA]
	V	(360–386)	47.8	373		[1955BRO/LAU]
$B_3F_3H_3N_3$	[13779-24-3]	2,4,6-trifluoroborazine				
	SUB	(273–454)	63.1 ± 0.1		I	[1966LAU/SCA]
$B_3H_6N_3$	[6569-51-3]	Borazaole				
	FUS	(13–310)	10.61	215.8	AC	[1992KUL/LEB, 1991LEB/KUL]
$B_3H_{12}N_3$	[13871-09-5]	Hexahydroborazine				
	SUB	(321–349)	104.6 ± 12.6		ME	[1969LEA/LON, 1971LEA]
(NH_3)-(B_3H_7)	[57808-44-3]	Ammonia-triborane complex				
	SUB	(306–328)	71.5 ± 0.4		ME	[1959ALT/BRO]
	SUB	(304–327)	71.5			[1959WES/LEV]
Ba						
$(C_{10}H_2BaF_{12}O_4)$-$(C_{12}H_{24}O_6)$	[143737-48-8]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)barium(II)-18-crown-6 complex				
	SUB	(412–468)	104.9 ± 1.3	440		[1995TOB/WAT]
	SUB	(428–473)	115 ± 2	450	T	[1993SYO/GOL]
$C_{12}H_2BaF_{16}O_4$	[145524-87-4]	bis(1,1,1,5,5,6,6,6-octafluoro-2,4-hexanedionato)barium				
	FUS		21.76	507.0	DSC	[1993SAT/SUG]
$C_{14}H_2BaF_{20}O_4$	[145524-88-5]	bis(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato)barium				
	FUS		39.75	502.3	TGA,DTA	[1993SAT/SUG]
$C_{22}H_{38}BaO_4$	[155138-07-1]	bis(2,2,6,6-tetramethylheptan-3,5-dionato)barium(II)				
	SUB		NA			[1994ALI/MAL]
	SUB		90.2			[1993TOB/LAN]
$C_{34}H_{42}BaCu_2F_{24}O_8$	[160364-35-2]	tetrakis(hexafluoroisopropoxy)bis(2,2,6,6-tetramethylheptan-3,5-dionato)barium(II)dicopper(II)				
	SUB	(383–448)	102.7	416		[1996LAB/HUB]
$C_{56}H_{80}BaF_{24}O_{12}Y_2$	[160669-81-8]	tetrakis(hexafluoroisopropoxy)tetrakis(2,2,6,6-tetramethylheptan-3,5-dionato)barium(II)diyttrium(III)				
	SUB	(360-403)	84.8	382		[1996LAB/HUB]
Be						
C_2H_6Be	[506-63-8]	Dimethyl beryllium				
	V	(373–453)	88.7	388		[1952COA/GLO]
$C_{10}H_2BeF_{12}O_4$	[19648-82-9]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)beryllium(II)				
	SUB	(289–349)	66.1	319	BG	[1987GRI/LAZ2]
$C_{10}H_8BeF_6O_4$	[13939-10-1]	bis(1,1,1-trifluoro-2,4-pentanedionato)berylium(II)				
	SUB	(354–383)	85.3 ± 6.3	368	BG	[1987GRI/LAZ2, 1988LAZ/GRE]
	SUB		88.0 ± 6.5	298		[1987GRI/LAZ2]
	SUB		U30.5			[1960BER/TRU, 1965BER/TRU]
	V	(387–474)	59.8 ± 0.4	431	BG	[1988LAZ/GRE]
$C_{10}H_{14}BeO_4$	[10210-64-7]	bis(2,4-pentanedionato)berylium(II)				
	FUS		15.7	381.2	DSC	[1983MUR/HIL]
	SUB		95.3 ± 2.0			[1988RIB/PIL]
	SUB		94 ± 1.0	298	ME	[1977NAG, 1988RIB/FER4]
	SUB		82.3		BG	[1988LAZ/GRE]
	SUB		91 ± 1.4	298	C	[1985MUR/SAK]
	SUB		85.3 ± 3.5		DSC	[1983MUR/HIL]
	SUB		U35.6			[1960BER/TRU, 1965BER/TRU]
	V	(382–511)	65.7 ± 1.1	447	BG	[1988LAZ/GRE]
$C_{12}H_{18}Be_4O_{13}$	[19049-40-2]	*hexakis*(aceto)-oxotetraberyllium				
	SUB	(390–451)	115.3	420.5	A	[1987STE/MAL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB (monoclinic)		115.3			[1959SEM/GOR]
	SUB (I)	(394–422)	132.6	408		[1955MOM/SEK]
	SUB (II)	(426–446)	113.4	436		[1955MOM/SEK]
$C_{20}H_{12}BeF_6O_4$	[14052-07-4]	bis(1-phenyl-4,4,4-trifluoro-1,3-butanedionato)beryllium(II)				
	SUB		U35.8		I	[1960BER/TRU, 1965BER/TRU]
$C_{20}H_{18}BeO_4$	[14128-75-7]	bis(benzoylacetonato)berylium(II)				
	SUB	(416–438)	151.6 ± 1.8	427	TE,ME	[1995RIB/MON2]
	SUB		158.0 ± 1.8	298		[1995RIB/MON2]
	SUB		142.3 ± 1.4	298	C	[1983RIB/REI]
$C_{22}H_{38}BeO_4$	[36915-22-7]	bis(2,2,6,6-tetramethylheptane-3,5-dionato)berylium				
	SUB		84.2		BG	[1988LAZ/GRE]
	V	(383–525)	65.1	454	BG	[1988LAZ/GRE]
BeF_2	[7787-49-7]	beryllium fluoride				
	SUB	(713–795)	236.4 ± 2.9	750	TE	[1965BLA/GRE]
	SUB		231.8 ± 1.7	755	MS.	[1965BLA/GRE]
	V	(823–1223)	222.8	923	TE,ME,GS	[1963GRE/FOS]
	V	(802–1021)	209.6	911		[1958SEN/STO]
	V	(821–1002)	196.6	911		[1958NOV/SEM]
	V	(745–968)	212.9	856	GS	[1954SEN/SNY]
Bi						
CH_5Bi	[60458-17-5]	Methylbismuth				
	V	(190–258)	29.9	224		[1961AMB]
C_2H_7Bi	[14381-45-4]	Dimethylbismuth				
	V	(206–250)	32.7	228		[1961AMB]
C_3H_9Bi	[593-91-9]	Trimethylbismuth				
	V	(258–313)	36.1 ± 0.1	298		[2013MOR/FUL]
	V	(215–380)	35.8	298		[1961AMB]
	V		34.8			[1955LON/SAC2]
	V		36.0 ± 1.3			[1954LON/SAC, 1982PIL/SKI]
	V		34.8		BG	[1946BAM/LEV]
C_6H_9Bi	[65313-35-1]	Trivinylbismuth				
	V	(293–346)	48.5	308		[1957MAI/SEY, 1984BOU/FRI]
$C_6H_{15}Bi$	[617-77-6]	Triethylbismuth				
	FUS		8.7	145.8		[1989NIS/RAB]
	V		46.0 ± 4.2			[1963LAU/TRO, 1982PIL/SKI]
	V	(301–343)	43.9	322		[1957MAI/SEY]
$C_{15}H_{30}BiN_3S_6$	[20673-31-8]	tris(*N*,*N* diethyldithiocarbamate)bismuth(III)				
	SUB		213 ± 3	298		[1994LIE/MAR]
$C_{18}BiF_{15}$	[34422-57-6]	tris(pentafluorophenyl)bismuthine				
	FUS		28.9	370.2	DSC	[2008ZEL/CHU]
$C_{18}H_{15}Bi$	[603-33-8]	Triphenylbismuth				
	SUB		110.9 ± 8.4	298		[1982PIL/SKI, 1979STE]
$C_{21}H_{21}Bi$	[10050-08-5]	tris(2-methylphenyl)bismuthine				
	V	(below 483)	120.0			[1999TAS/ISH]
$C_{21}H_{42}BiN_3S_6$	[57407-97-3]	tris(dipropyldithiocarbamate)bismuth(III)				
	SUB		285.2 ± 5.0		DSC,E	[1999NEV/GOU]
$C_{27}H_{54}BiN_3S_6$	[34410-99-6]	tris(*N*,*N* dibutyldithiocarbamate)bismuth(III)				
	SUB		202 ± 3	298		[1994LIE/MAR]
$C_{27}H_{54}BiN_3S_6$	[90285-80-6]	tris(*N*,*N* diisobutyldithiocarbamate)bismuth(III)				
	SUB		147 ± 3	298	DSC,E	[1997DES/DES]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$BiCl_3$	[7787-60-2]	bismuth(III) chloride				
	SUB	(371–468)	124.7		ME	[1966CUB, 1959DAR/YOS]
	SUB	(371–468)	118.8 ± 0.4	420	ME	[1959DAR/YOS]
Br						
$BrFO_3$	[25251-03-0]	Perbromyl fluoride				
	V	(188–291)	25.3	250		[1972JOH/OHA]
BrF_3	[7787-71-5]	Bromine trifluoride				
	V	(311–428)	45.9	326		[1952OLI/GRI]
	V		42.5			[1933RUF/BRA]
BrF_5	[7789-30-2]	Bromine pentafluoride				
	V	(297–314)	30.6	304		[1956ROG/SPE]
	V	(213–297)	31.2	255		[1931RUF/MEN]
BrN_3O_6	[66794-51-2]	Bromine(III) nitrate				
	V		81.1	271		[1961SCH/TAG]
Br_2	[7726-95-6]	Bromine				
	FUS	(15–310)	10.57	265.9	AC	[1958HIL/KRA]
	V	(343–383)	29.8	358		[1973BLA/IHL]
	V		30.9	298		[1958HIL/KRA]
	V	(297–389)	31.3	312		[1955FIS/BIN]
	SUB	(177–195)	44.7 ± 0.4	185		[1960FRE/GRE]
Br_3OP	[7789-59-5]	Phosphoryl bromide				
	V		45.6			[1942VAN]
HBr	[7726-95-6]	Hydrogen bromide				
	V		17.6	206	C	[1928GIA/WIE]
Ca						
$C_{22}H_{38}CaO_4$	[951379-43-4]	bis(2,2,6,6-tetramethylheptan-3,5-dionato)calcium(II)				
	SUB		72		GS	[1990YUH/KIK]
Cd						
C_2H_6Cd	[506-82-1]	Dimethyl cadmium				
	TRS	(14–291)	1.52	254.4		
	FUS	(14–291)	7.84	270.5		[1956LI]
	SUB	(259–269)	47.8 ± 0.1	263		[2013MOR/FUL]
	V		37.9 ± 1.2	298	C	[2014GER/PAV]
	V	(271–316)	38.1 ± 0.1	298		[2013MOR/FUL]
	V	(271–378)	37.1 ± 0.1	324		[1985SOK/BAE, 2001BAE]
	V	(270–295)	38.9	282		[1956LI]
	V		37.9 ± 0.1			[1949CAR/HAR2, 1982PIL/SKI]
	V		35.4		BG	[1946BAM/LEV]
$C_4H_{10}Cd$	[592-02-9]	Diethyl cadmium				
	V	(286–362)	46.0 ± 0.4	324		[1985SOK/BAE, 2001BAE]
	V		46.0 ± 2.1			[1949CAR/HAR, 1982PIL/SKI]
$C_4H_{16}CdCl_2N_8S_4$	[28813-21-0]	*trans*-dichloro-tetrakis(thiourea)cadmium(II)				
	SUB	(377–405)	75 ± 20			[1970ASH]
$C_6H_{14}Cd$	[5905-48-6]	Dipropyl cadmium				
	V	(312–373)	54.2 ± 0.4	342		[1985SOK/BAE, 2001BAE]
$C_8H_{18}Cd$	[3431-67-2]	Dibutyl cadmium				
	V	(336–376)	67.7 ± 1.2	356		[1985SOK/BAE, 2001BAE]
$C_{10}H_{14}CdCl_2N_6O_2$		[Cadmium(1-methylcytosine)$_2$Cl$_2$]				
	SUB	(483–503)	135.3 ± 20	493	ME	[1984BUR/MOR]
	SUB	(483–503)	145 ± 20	298	ME	[1984BUR/MOR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{10}H_{14}CdO_4$	[14689-45-3]	bis(2,4-pentanedionato)cadmium(II)				
	SUB	(438–448)	144.9 ± 22	443	ME	[1984BUR/MOR]
	SUB	(438–448)	154 ± 22	298	ME	[1984BUR/MOR]
$C_{10}H_{20}CdN_2S_4$	[14239-68-0]	bis(diethyldithiocarbamate)cadmium(II)				
	SUB	(433–469)	133.2	451	A	[1987STE/MAL]
$C_{14}H_{28}CdN_2S_4$	[55519-99-8]	bis(dipropyldithiocarbamate)cadmium(II)				
	SUB		199 ± 1	298	DSC,E	[1992DEC/AIR]
$C_{18}H_{12}CdN_2O_2$	[14245-29-5]	bis(8-hydroxyquinolinato)cadmium(II)				
	SUB		201.7 ± 7.5	298	ME	[1994RIB/MAT]
	SUB	(438–448)	144.9 ± 22	443	ME	[1984BUR/MOR]
	SUB	(438–448)	154 ± 22	298	ME	[1984BUR/MOR]
$C_{18}H_{36}CdN_2S_4$	[14566-86-0]	bis(dibutyldithiocarbamate)cadmium(II)				
	SUB		123 ± 3	298	DSC,E	[1991DES/DES]
$C_{18}H_{36}CdN_2S_4$	[69090-75-1]	bis(diisobutyldithiocarbamate)cadmium(II)				
	SUB		281 ± 2	298	DSC,E	[1994SOU/PIN]
$C_{20}H_{16}CdN_2O_2$	[15685-78-6]	bis(8-hydroxy-2-methylquinolinate)cadmium(II)				
	SUB	(537–554)	190.9 ± 7.3	546	ME	[1998RIB/MAT3]
	SUB	(537–554)	203.3 ± 7.3	298	ME	[1998RIB/MAT3]
$C_{44}H_{28}CdN_4$	[14977-07-2]	5,10,15,20-tetraphenylporphine cadmium(II)				
	SUB		222 ± 6		GS	[2000PER/GOL]
$CdBr_2$	[7789-42-6]	Cadmium bromide				
	SUB	(560–670)	142.3 ± 3.4	615	ME,MS	[1987SKU/DUD]
	V	(841–998)	115.1	920	BP	[1958BLO/BOC]
$CdCl_2$	[10108-64-2]	Cadmium chloride				
	SUB	(560–700)	166.5 ± 1.8	630	ME,MS	[1987SKU/DUD]
	V	(875–1026)	132.6	950		[1958BLO/WEL]
CdF_2	[7790-79-6]	Cadmium fluoride				
	SUB	(962–1149)	266.5 ± 5.7	1056	TE	[2008BRU/LEL]
CdI_2	[7790-80-9]	Cadmium iodide				
	SUB	(460–590)	139.4 ± 1.7	525	ME,MS	[1987SKU/DUD]
	V	(740–770)	110.9	755	TGA	[2011KOL/MIS]
	V		115.2		GS	[1997MIS/BHA, 2011KOL/MIS]
	V	(773–928)	115.1	850	BP	[1958BLO/BOC]
Ce						
$C_{15}H_{15}Ce$	[1298-53-9]	tris(cyclopentadienyl)cerium				
	SUB	(528–653)	104.6 ± 2.1			[1973BOR/KRA]
$CeBr_3$	[14457-87-5]	Cerium(III) bromide				
	SUB	(887–1003)	300 ± 10	298	TE	[2000VIL/BRU]
$CeCl_3$	[7790-86-5]	Cerium(III) chloride				
	SUB	(955–1070)	331 ± 5	298	TE	[2000VIL/BRU]
CeI_3	[7790-87-6]	Cerium(III) iodide				
	SUB	(910–1031)	295 ± 10	298	TE	[2000VIL/BRU]
	SUB		274.4 ± 1.6	877		[1991STR/FEU]
	SUB	(870–1015)	284.5 ± 4.3	943	ME	[1975HIR/ROM]
	SUB	(870–1015)	317.1 ± 4.3	298	ME	[1975HIR/ROM]
Cf						
$(C_{15}H_3CfF_{18}O_6)$-$2(C_6H_{14}OS)$	[123611-97-2]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)californium-249-dipropyl sulfoxide (1:2) complex				
	SUB	(402–434)	93.6 ± 6.0		GS,TRM	[1989AIZ/FED]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$(C_{15}H_3CfF_{18}O_6)$-$2(C_{12}H_{27}OP)$	[123628-36-4]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)californium-249-tributylphosphine oxide (1:2) complex				
	SUB	(431–485)	130.6 ± 1.9		GS,TRM	[1989AIZ/FED]
$(C_{15}H_3CfF_{18}O_6)$-$2(C_{12}H_{27}O_4P)$	[123712-43-6]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)californium-249-tributylphosphate (1:2) complex				
	SUB	(413–451)	133.0 ± 6.1		GS,TRM	[1989AIZ/FED]
Cl						
$ClFO_2$	[13637-83-7]	Chlorine oxyfluoride				
	V	(195–267)	25.9			[1942SCH/SCH]
$ClFO_3$	[7616-94-6]	Perchloryl fluoride				
	FUS	(15–225)	3.83	125.4		[1958KOE/GIA]
	V	(164–228)	19.2	226	MM	[1958KOE/GIA]
	V		19.3	226	C	[1958KOE/GIA]
	V	(152–242)	19.3	226		[1957JAR]
	V	(161–229)	20.8	195		[1956ENG/ATZ]
	V		19.2			[1951BOD/KLE]
ClF_3	[7790-91-2]	Chlorine trifluoride				
	TRS	(14–278)	1.51	190.5		
	FUS	(14–278)	7.61	196.8		[1951GRI/BER]
	V	(299–317)	27.5	313		[1997SAK/HOR]
	V	(226–303)	28.4	288		[1951GRI/BER]
ClF_5	[13637-63-3]	Chlorine pentafluoride				
	V	(173–342)	24.1	208	QM	[1966GAT/KRI]
ClF_5OS	[22675-70-3]	Chloroxysulfur pentafluoride				
	V	(209–273)	25.3			[1969SCH/WIL]
ClI	[7790-99-0]	Iodine chloride				
	FUS		11.6	300.5	C	[1965CAL/GIA]
ClNO	[2696-92-6]	Nitrosyl chloride				
	FUS		6.0	213.6	S-V	[1952BUR/DAI]
	SUB	(176–209)	31.8	193	BG	[1952BUR/DAI]
	V	(219–266)	25.8	242	BG	[1952BUR/DAI]
	V	(203–258)	25.3	230	SG	[1949PAR/WHY]
	V	(212–268)	25.5	240		[1924TRA/GER]
	V	(205–288)	23.3	268		[1913BRI/PYL]
$ClNO_3$	[14545-72-3]	Chlorine nitrate				
	V	(193–299)	28.9	246		[1967SCH]
	V		30.5			[1961SCH/BRA]
Cl_2	[7782-50-5]	Chlorine				
	FUS		6.41	172.1	C	[1939GIA/POW]
	V		20.4	239	C	[1939GIA/POW]
Cl_2O_6	[12442-63-6]	Dichlorine hexaoxide				
	SUB	(233–276)	51.5	255	BG	[1937GOO/RIC]
	V	(273–318)	52.3	295		[1990LOP/SIC]
	V	(276–293)	39.6	284	BG	[1937GOO/RIC]
[Note: The authors of [1990LOP/SIC] noted the disagreement between their Trouton's constant and that reported by [1937GOO/RIC].						
HCl	[7647-01-0]	Hydrogen chloride				
	SUB	(121–133)	19.7	127		[1990SER/LAR]
	SUB	(134–150)	19.6	142		[1990SER/LAR]
	V		16.2	188	C	[1928GIA/WIE2]
Co						

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
C_3CoNO_4	[14096-82-3]	Cobalt nitrosyl tricarbonyl				
	V	(272–353)	36.3	287		[1947STU]
C_4HCoO_4	[16842-03-8]	Hydridocobalt tetracarbonyl				
	V	(273–295)	28.0		GS	[1980ROT/ORC]
$C_4H_3CoO_4Si$	[14652-62-1]	Silyl tetracarbonyl cobalt				
	V	(263–357)	37.8	310	T	[1969AYL/CAM]
$C_4H_{16}Cl_2CoN_8S_4$	[22738-43-8]	*trans*-dichloro-tetrakis(thiourea)cobalt(II)				
	SUB	(356–382)	129 ± 20			[1970ASH]
$C_7H_5CoO_2$		(cyclopendienyl) cobalt dicarbonyl				
	V	(313–369)	52.1 ± 0.7			[2000SZT/BAE]
$C_8Co_2O_8$	[10210-68-1]	Octacarbonyldicobalt				
	SUB	(264–278)	84.3 ± 0.5	271	TE	[1995GAR/CHA]
	SUB	(288–315)	103.8	301.5	A	[1987STE/MAL, 1968BAE]
	SUB		65.2 ± 3.3	298		[1982PIL/SKI, 1975GAR/CAR]
	SUB	(207–287)	75.3 ± 6.3		EM	[1973CAR/ROB]
$C_8H_2Co_2O_8Si$	[23591-62-0]	Silylene bis(tetracarbonylcobalt)				
	V	(297–335)	38.7	316	T	[1969AYL/CAM]
$C_8H_{10}C_{12}CoN_6O_2$	[74543-51-4]	[Cobalt(cytosine)$_2$Cl$_2$]				
	SUB	(483–523)	151.8 ± 14	503	ME	[1984BUR/MOR]
	SUB	(483–523)	162 ± 14	298	ME	[1984BUR/MOR]
C_9CoMnO_9	[35646-82-3]	Nonacarbonylcobaltmanganese				
	SUB		85 ± 2	308	C	[1998ADD/CON]
	SUB		72 ± 2	298	C	[1998ADD/CON]
C_9CoO_9Re	[15039-80-2]	Nonacarbonylcobaltrhenium				
	SUB		94 ± 4	313	C	[1998ADD/CON]
	SUB		83 ± 4	298	C	[1998ADD/CON]
$C_{10}BrCo_3O_9$	[19439-14-6]	(bromomethylidyne)tricobaltenneacarbonyl				
	SUB		99.6 ± 1.7	298		[1982PIL/SKI, 1975GAR/CAR]
$C_{10}ClCo_3O_9$	[13682-02-5]	(chloromethylidyne)tricobaltenneacarbonyl				
	SUB		117.6 ± 2.5	298		[1982PIL/SKI, 1975GAR/CAR]
$C_{10}H_8Cl_4CoN_2$	[14361-73-0]	[cobalt(2-chloropyridine)$_2$Cl$_2$]				
	SUB	(345–365)	101.2 ± 6.7	355	DSC	[1982MOR]
$C_{10}H_8Cl_4CoN_2$	[14361-78-5]	[cobalt(3-chloropy ridine)$_2$Cl$_2$]				
	SUB	(345–365)	77.0 ± 4.2	355	DSC	[1982MOR]
$C_{10}H_{10}Co$	[1277-43-6]	Dicyclopentadienyl cobalt (cobaltocene)				
	SUB		17.8	450.5	DSC	[2011VIE/ROJ]
	SUB	(353–413)	70.6 ± 0.9	298	TGA	[2011VIE/ROJ]
	SUB	(297–324)	72.1 ± 0.1		ME	[1988TOR/BAR2, 2011VIE/ROJ]
	SUB	(297–324)	72.3 ± 0.1		ME	[1988TOR/BAR2, 2011VIE/ROJ]
	SUB		70.3 ± 4.2	298		[1982PIL/SKI, 1975TEL/KIR]
$C_{10}H_{14}CoO_4$	[14024-48-7]	bis(2,4-pentanedionato)cobalt(II)				
	SUB	(433–463)	149		TGA	[2000FAH/BAR]
	SUB	(322–371)	130.1 ± 6.3	298	ME	[1990MAL/ALI]
	SUB		118.7 ± 2.2	298		[1985MUR/SAK]
	SUB		81.2	370		[1970GOE/BLO]
	SUB		U62.8			[1960BER/TRU, 1965BER/TRU]
$C_{12}Co_4O_{12}$	[17786-31-1]	Tetracobaltdodecacarbonyl				
	SUB		96.2 ± 4.2	298		[1982PIL/SKI, 1974CON/SKI]
$C_{12}H_{14}Cl_2CoN_2$	[13869-67-5]	[cobalt(2-methylpyridine)$_2$Cl$_2$]				
	SUB	(345–365)	86.6 ± 3.8	355	DSC	[1982MOR]
$C_{14}H_{10}Br_2CoN_2S_2$	[21422-14-0]	[cobalt(benzothiazole)$_2$Br$_2$]				
	SUB	(381–399)	124.7 ± 4.1	390	DSC	[1973MOR/MCN]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_3CoF_{18}O_6$	[16702-37-7]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)cobalt(III)				
	SUB	(333–363)	73.0		TGA	[2000FAH/BAR]
$C_5H_{12}CoF_9O_6$	[16827-64-8]	tris(1,1,1-trifluoro-2,4-pentanedionato)cobalt(III)				
	SUB	(373–403)	119		TGA	[2000FAH/BAR]
	SUB		168 ± 2.0	407	C	[1988RIB/FER]
	SUB		114 ± 4.0	298		[1988RIB/FER]
	SUB	(383–433)	108.8 ± 0.4		GS	[1985MAT/KUW]
$C_{15}H_{21}CoO_6$	[21679-46-9]	tris(2,4-pentanedionato)cobalt(III)				
	FUS		93.9	478	DSC	[2004SAB/MAR]
The value is abnormally large compared with $Cr(acac)_3$—may undergo decomposition						
	SUB	(433–463)	138		TGA	[2000FAH/BAR]
	SUB		NA			[1994GER/GER]
	SUB	(318–382)	134.6 ± 4.0	298	ME	[1990MAL/ALI]
	SUB		142.6 ± 6.9	471	DSC	[1987MUR/HIL]
	SUB		86.3			[1971ASH]
	SUB		107.1	390		[1970GOE/BLO]
	SUB		74.9 ± 4.6			[1964WOO/JON]
	SUB		U13.0			[1961BER/DOW]
$C_{15}H_{30}CoN_3S_6$	[13963-60-5]	tris(diethyldithiocarbamato)cobalt(III)				
	SUB	(448–587)	95 ± 6	518		[1979CAV/HIL2]
$C_{16}H_{14}Br_2CoN_2O_2$	[22974-96-5]	[cobalt(2-methylbenzoxazole)$_2$Br$_2$]				
	SUB	(345–390)	111.1 ± 4.2	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{16}H_{14}Cl_2CoN_2O_2$	[52657-96-2]	[cobalt(2-methylbenzoxazole)$_2$Cl$_2$]				
	SUB	(345–390)	92.4 ± 2.5	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{16}H_{14}Br_2CoN_2S_2$	[26225-02-5]	[cobalt(2-methylbenzothiazole)$_2$Br$_2$]				
	SUB	(335–354)	115.1 ± 4.1	345	DSC	[1973MOR/MCN]
$C_{16}H_{14}Cl_2CoN_2S_2$	[26225-01-4]	[cobalt(2-methylbenzothiazole)$_2$Cl$_2$]				
	SUB	(332–356)	122.6 ± 1.2	345	SC	[1973MOR/MCN]
$C_{18}H_{12}CoN_2O_2$	[13978-88-6]	bis(8-hydroxyquinolinato)cobalt(II)				
	SUB		205.3 ± 4.0	298	ME	[1994RIB/MAT]
	SUB	(533–569)	185.7 ± 9	551	ME	[1984BUR/MOR]
	SUB		200 ± 10	298		[1984BUR/MOR]
$C_{18}H_{14}CoN_4$	[41283-94-7]	Dibenzotetra-aza-annulene cobalt(II) complex				
	SUB		178.2 ± 16.7	360		[1982ZVE/VIN]
$C_{18}H_{18}Br_2CoN_2O_2$	[52230-48-5]	[cobalt(2,5-dimethylbenzoxazole)$_2$Br$_2$]				
	SUB	(345–390)	95.4 ± 4.6	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{18}H_{18}Cl_2CoN_2O_2$	[52230-47-4]	[cobalt(2,5-dimethylbenzoxazole)$_2$Cl$_2$]				
	SUB	(345–390)	104.6 ± 5.8	368	DSC	[1982MOR, 1974MOR/MCN]
$C_{20}H_{16}CoN_2O_2$	[17992-18-6]	bis(8-hydroxy-2-methylquinolinate)cobalt(II)				
	SUB	(457–473)	196.1 ± 5.9	465	ME	[1998RIB/MAT3]
	SUB		204.4 ± 5.9	298		[1998RIB/MAT3]
$C_{22}H_{38}CoO_4$	[13986-53-3]	bis(2,2,6,6-tetramethyl-3,5-heptanedionato)cobalt(II)				
	SUB	(433–463)	143		TGA	[2000FAH/BAR]
$C_{24}H_{12}CoF_9O_6S_3$	[41875-84-7]	tris(1-(2-thenoyl)-4,4,4-trifluoro-1,3-butanedione)cobalt(III)				
	SUB		45.6			[1961BER/DOW]
$C_{24}H_{12}CoF_9O_9$	[64137-83-3]	tris(2-furoyltrifluoroacetonato)cobalt(III)				
	SUB		35.6			[1961BER/DOW]
$C_{30}H_{18}CoF_9O_6$	[31125-84-5]	tris(1-phenyl-4,4,4-trifluoro-1,3-butanedionato)cobalt(III)				
	SUB		51.0			[1961BER/DOW]
$C_{30}H_{27}CoO_6$	[14524-55-1]	tris(1-phenyl-1,3-butanedionato)cobalt(III)				
	SUB		39.0			[1961BER/DOW]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{32}H_{16}CoN_8$	[3317-67-7]	Cobalt(II) phthalocyanine				
	SUB		183.7 ± 13.8		ME	[1970BON/CAT]
$C_{32}H_{46}CoN_2O_4$	[183475-53-8]	bis(2,2,6,6-tetramethyl-3,5-heptanedionato)(2,2′-bipyridyl)cobalt(II)				
	SUB		126 ± 4.0		B	[1996CHA/EMM]
	SUB		130.3		UV/Vis	[1996CHA/EMM]
	SUB		124.4		MEM	[1996CHA/EMM]
$C_{33}H_{57}CoO_6$	[14877-41-9]	tris(2,2,6,6-tetramethyl-3,5-heptanedionato)cobalt(III)				
	SUB	(374–414)	103.8 ± 1.0	394	TGA	[2007SID/ATA]
	SUB	(433-463)	132		TGA	[2000FAH/BAR]
	SUB		126 ± 3.0	298		[1988RIB/FER]
$C_{44}H_{28}CoN_4$	[14172-90-8]	5,10,15,20-tetraphenylporphine cobalt(II)				
	FUS		57.5	747.2	DSC	[2010GAM/CAM]
$CoBr_2$	[7789-43-7]	Cobalt(II) bromide				
	SUB	(764–911)	207 ± 4.0	802	TE	[1997BAR/BRU]
	SUB		216 ± 1.0	298		[1997BAR/BRU]
Cr						
C_6CrO_6	[13007-92-6]	Chromium hexacarbonyl				
	FUS		25.2	428.05	DSC	[2013BER/CAN]
	FUS		23.43	423.2	DSC	[1976FAB/MAS]
	SUB		72.6 ± 0.3	298	C	[2013BER/CAN]
	SUB		65.8 ± 1.3		TE	[2005CHA/LAU]
	SUB	(309–347)	63.3 ± 2.1	328	GS	[2002PAN/MAL]
	SUB	(266–272)	65.7	269	TE	[1995GAR/CHA]
	SUB	(266–272)	64.1 ± 3.6	298	TE	[1995GAR/CHA, 2013BER/CAN]
	SUB	(323–391)	68.5 ± 1.1			[1993BAE]
	SUB	(288–423)	68.5	355.5		[1987STE/MAL]
	SUB		68.9 ± 2	298		[1984ALT/CON]
	SUB		70.0 ± 2	298	C	[1983RIB/REI]
	SUB	(240–280)	71.6 ± 1.7	260	ME	[1980BOX/ERN, 1979DAA/ERN]
	SUB	(240–280)	69.3 ± 3.6	298	ME	[1980BOX/ERN, 2013BER/CAN]
	SUB		69.5	298	C	[1975ADE/BRO]
	SUB		72.0 ± 4.2	298		[1982PIL/SKI, 1975PIT/PIL]
	SUB	(274–301)	71.5 ± 0.8	288	BG	[1966BON]
	SUB	(274–301)	70.6 ± 2.1	298	BG	[1966BON, 2013BER/CAN]
	SUB	(301–315)	76.1	308		[1959COR/SCH]
	SUB	(319–411)	69.3			[1952REZ/SHV]
	SUB		71.9			[1935HIE/ROM]
	SUB	(308–408)	63.6	358	MM	[1934WIN/BLA]
	V	(309–424)	62.5	324		[1947STU, 1995HAM/KOD]

[Note: The authors of [2002PAN/MAL] question the value of 62.5 kJ/mol for the enthalpy of vaporization. They suggest that the value is the sum of the enthalpy of vaporization plus the enthalpy of decomposition. The value is not consistent with the experimental enthalpies of fusion and sublimation. Given that the temperature range for the measurements falls below the melting point temperature, we believe that the value likely corresponds to the enthalpy of sublimation.]

$C_8H_3CrNO_5S$	[55293-31-7]	Thiazole(pentacarbonyl)chromium				
	SUB	(270–301)	102.0 ± 2.7	286	ME	[1979DAA/ERN]
$C_8H_4CrN_2O_5$	[71127-65-6]	Pyrazole(pentacarbonyl)chromium				
	SUB	(270–303)	88.4 ± 1.8	287	ME	[1979DAA/ERN]
$C_8H_9CrNO_5$	[15228-26-9]	Trimethylamine(pentacarbonyl)chromium				
	SUB	(248–293)	80.2 ± 0.7	271	ME	[1980BOX/ERN]
$C_8H_9CrO_5P$	[26555-09-9]	Trimethylphosphine(pentacarbonyl)chromium				
	SUB		91.2 ± 1.6		ME	[1980BOX/ERN]
$C_8H_{12}CrMoO_8$	[71561-64-3]	Chromium molybdenum tetraacetate				
	SUB		165.0 ± 8.4			[1982PIL/SKI]
$C_8H_{12}Cr_2O_8$	[15020-15-2]	Tetra-μ-acetatodichromium(II)				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(330–340)	299.6 ± 10	335	ME,TE	[1984CAR]
	SUB		313.8 ± 27.0	298		[1982PIL/SKI, 1979DAA/ERN]
	SUB		145		E	[1979CAV/GAR]
$C_9H_4CrN_2O_5$	[66179-02-0]	Pyrazine(pentacarbonyl)chromium				
	SUB		99.7		ME	[1979DAA/ERN]
$C_9H_5ClCrO_3$	[12082-03-0]	Chlorobenzenechromium tricarbonyl				
	SUB		102.5 ± 4.2	298		[1982PIL/SKI, 1975ADE/BRO]
$C_9H_6CrO_3$	[12082-08-5]	Benzene chromium tricarbonyl				
	SUB		91.2	298	C	[1975ADE/BRO]
	SUB		U58.6			[1961FIS/FRI, 1973CON/SKI]
	SUB	(364–370)	97.9		TE	[1959COR/SCH, 1973CON/SKI]
$C_{10}H_5CrNO_5$	[14740-77-3]	Pyridine(pentacarbonyl)chromium				
	SUB	(294–317)	103.2 ± 1.8	306	ME	[1979DAA/ERN]
$C_{10}H_8CrO_3$	[12125-72-3]	Cycloheptatriene chromium tricarbonyl				
	SUB		94.1	298	C	[1975ADE/BRO]
$C_{10}H_8CrO_3$	[12125-87-0]	η^6-toluene(tricarbonyl)chromium				
	SUB		93.0 ± 2.0	298	C	[1984ALT/CON]
	SUB		94.6 ± 4.2	298		[1982PIL/SKI, 1975ADE/BRO]
$C_{10}H_8CrO_3$	[12116-44-8]	η^6-anisole(tricarbonyl)chromium				
	SUB		104.2 ± 2.0	298	C	[1984ALT/CON]
$C_{10}H_{10}Cr$	[1271-24-5]	Chromocene				
	SUB		71.0	298		[1984BAE/BAR2]
	SUB		62.8 ± 4.2	298		[1982PIL/SKI, 1975TEL/KIR]
	SUB		69.9 ± 1.7			[1977TEL/RAB]
	V	(452–519)	49.5 ± 1.5	485		[1984BAE/BAR2]
$C_{10}H_{14}CrO_4$	[14024-50-1]	bis(2,4-pentanedionato)chromium(II)				
	SUB	(330–370)	129.8 ± 8.7	298	ME	[1990MAL/ALI]
	SUB		111	439	T	[1981MAS/BAR]
$C_{10}H_{11}CrNO_5$	[15710-39-1]	Piperidine(pentacarbonyl)chromium				
	SUB	(265–298)	93.5 ± 1.9	282	ME	[1979DAA/ERN]
$C_{10}H_{11}CrNO_5$	[31870-79-8]	Styrenetricarbonyl chromium				
	FUS		25.28	354.4		[2003SMI/LEB]
$C_{11}H_8CrO_4$	[12146-36-0]	Norbornadienechromium tetracarbonyl				
	SUB		89.0 ± 4.0	298		[1982PIL/SKI, 1977BRO/CON]
$C_{11}H_8CrO_4$	[12153-11-6]	η^6-acetophenone(tricarbonyl)chromium				
	SUB		107.0 ± 0.6	298	C	[1984ALT/CON]
$C_{11}H_8CrO_5$	[12125-87-0]	η^6-methyl benzoate(tricarbonyl)chromium				
	SUB		114.0 ± 5.0	298	C	[1984ALT/CON]
$C_{11}H_{11}CrNO_3$	[12109-10-3]	η^6-*N*,*N*-dimethylaniline(tricarbonyl)chromium				
	SUB		118.4 ± 10	298	C	[1984ALT/CON]
$C_{12}H_{10}CrO_3$	[69074-28-8]	α-methylstyrenetricarbonyl chromium				
	FUS		27.4	360		[2003SMI/LEB]
$C_{12}H_{12}Cr$	[1271-54-1]	Dibenzenechromium				
	SUB	(323–363)	89.4	343	A	[1987STE/MAL]
	SUB		78.2 ± 6.3	298		[1982PIL/SKI, 1973CON/SKI]
	SUB		82.0 ± 2.1		ME	[1973UMI/FED]
	SUB		90.6 ± 0.3			[1969AND/WES2]
	SUB	(359–371)	78.2	365		[1959COR/SCH]
	SUB		78.2 ± 6.2	298		[1958FIS/SCH]
$C_{12}H_{12}CrO_3$	[12129-67-8]	Mesitylene chromium tricarbonyl				
	SUB		108.4	298	C	[1975ADE/BRO]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		U64.4			[1961FIS/SCH, 1977TEL/RAB]
$C_{12}H_{12}CrO_3$	[32913-41-0]	(1,2,4-trimethylbenzene) chromium tricarbonyl				
	SUB		U33.5			[1961FIS/SCH, 1977TEL/RAB]
$C_{13}H_8CrO_3$	[12110-37-1]	(1,2,3,4,4a,8a-*h*-naphthalene)tricarbonyl chromium				
	SUB		107 ± 3	298	C	[1979CON/MAR]
$C_{15}H_3F_{18}CrO_6$	[14592-80-4]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)chromium(III)				
	SUB	(333–363)	U46	343	TGA	[2000FAH/BAR]
	SUB		164 ± 4.0	426	C	[1987RIB/FER]
	SUB		112 ± 4.0	298		[1987RIB/FER]
	SUB	(333–360)	123.0 ± 1.3	335		[1972FON/POM]
	V	(343–398)	61.4	370	GC	[1978BUB/MAZ]
	V	(360–373)	69.1	367		[1972FON/POM]
$C_{15}H_{12}CrF_9O_6$	[14592-89-3]	tris(1,1,1-trifluoro-2,4-pentanedionato)chromium(III)				
	SUB	(373–403)	71		TGA	[2000FAH/BAR]
	SUB		182 ± 4.0	426	C	[1987RIB/FER]
	SUB		117 ± 4.0	298		[1987RIB/FER]
	SUB	(373–438)	115.1 ± 0.8		GS	[1985MAT/KUW]
	SUB	(403–423)	112.5 ± 4.8			[1978CHU/IGU]
	SUB		53.6	447		[1977VOL/MAZ]
	SUB	(377–413)	108.8 ± 1.3	395		[1972FON/POM]
	V	(403–473)	74.9	438	GC	[1978BUB/MAZ]
	V	(424–486)	76.7 ± 0.6	455		[1978CHU/IGU]
$C_{15}H_{18}CrO_3$	[12088-11-8]	Hexamethylbenzene chromium tricarbonyl				
	SUB		123.0 ± 4.0	298	C	[1975ADE/BRO, 1977BRO/CON]
$C_{15}H_{21}CrO_6$	[21679-31-2]	tris(2,4-pentanedionato)chromium(III)				
	FUS		35.9	486	DSC	[2004SAB/MAR]
	FUS		34	489		[1988LAZ/GRE]
	FUS		28.7	487		[1984MUR/HIL]
	FUS		35.2	490		[1971BEE/LIN2]
	FUS		28.4	489		[1970MEL/MER2]
	SUB		120.8		TGA,DTA	[2009GAI/KUN]
	SUB	(345–410)	128.2	378	ME	[2007SID/SID]
	SUB	(320–388)	127.6	354	ME	[2005SEM/IGU]
	SUB	(374–418)	111.6 ± 3.0	396	GS	[2002PAN/MAL]
	SUB		133.8 ± 4.2			[2001FED/GEL]
	SUB	(413–443)	91.0		TGA	[2000FAH/BAR]
	SUB	(350–375)	126.8 ± 4.2	298	ME	[1990MAL/ALI]
	SUB	(457–486)	113.0 ± 4.8		BG	[1988LAZ/GRE, 1987GRI/LAZ]
	SUB		132.1 ± 1.9	298	C	[1985MUR/SAK]
	SUB	(438–498)	144.1	468	GC	[1978BUB/MAZ]
	SUB		28.9	463		[1977VOL/MAZ]
	SUB		112.1	390		[1970GOE/BLO]
	SUB	(363–393)	40.2 ± 1.7	378		[1972FON/POM]
	SUB		110.9 ± 0.8	298	HSA	[1970MEL/MER, 1970MEL/MER2]
	SUB		123 ± 3.0	298	ME	[1977NAG, 1988RIB/FER4, 1967HIL/IRV]
	V		89.9		DTA,TGA	[2009GAI/KUN]
	V		79.4 ± 4.2			[2001FED/GEL]
	V	(490–536)	82.2 ± 2.0	513	BG	[1988LAZ/GRE]
$C_{16}H_{20}Cr$		bis(ethylbenzene)chromium				
	V		75.3 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{18}H_{24}Cr$	[1274-07-3]	bis(η^6-1,3,5-trimethylbenzene)chromium				
	SUB		104 ± 1	298	C	[1979CON/MAR]
$C_{20}H_{16}Cr$	[33085-81-3]	bis(naphthalene)chromium				
	SUB		105.0 ± 10			[1979CON/MAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{28}Cr$		bis(1,2-diethylbenzene)chromium				
	V		75.3 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{21}H_{30}Cr$		(1,2-diisopropylbenzene)isopropylbenzenechromium				
	V		100.4 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{23}H_{15}CrO_5P$	[14917-12-5]	Triphenylphosphine(pentacarbonyl)chromium				
	SUB	(324–347)	170.2 ± 6.8	336	ME	[1980BOX/ERN]
$C_{24}H_{24}Cr_2N_4O_4$	[67634-82-6]	tetrakis(6-methyl-2-hydroxypyridyl)dichromium(II)				
	SUB		150.0 ± 4.0	298		[1982PIL/SKI, 1981CAV/GAR]
$C_{24}H_{36}Cr$		bis(1,2-diisopropylbenzene)chromium				
	V		100.4 ± 8.4			[1973TEL/RAB, 1982PIL/SKI]
$C_{24}H_{36}Cr$	[12156-66-0]	bis(η^6-hexamethylbenzene)chromium				
	SUB		119 ± 4	298	C	[1979CON/MAR]
$C_{30}H_{27}CrO_6$	[16432-36-3]	tris(1-phenyl-1,3-butanedionato)chromium(III)				
	SUB		186 ± 2	298	C	[1987RIB/FER]
$C_{30}H_{30}F_{21}C1O_6$	[17966-86-8]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)chromium(III)				
	SUB	(323–353)	37.7 ± 0.8	338		[1972FON/POM]
$C_{33}H_{57}C1O_6$	[14434-47-0]	tris(2,2,6,6-tetramethyl-3,5-heptanedionato)chromium(III)				
	SUB	(350–398)	127.5 ± 3.1	374	ME	[2010SID/SID]
	SUB	(413–443)	85		TGA	[2000FAH/BAR]
	SUB		133 ± 2	298	C	[1987RIB/FER]
$C_{80}H_{28}Cr$		bis(η^6-*tert*-butylphenyl)chromium fulleride complex				
	TRS	(6–360)	15.36	190	AC	[2009RUC/MAR]
CrI_2	[13478-28-9]	Chromium(II) iodide				
	SUB	(943–1054)	298.7	298		[1956ALL]
Cs						
$C_5H_9CsO_2$	[20442-70-0]	Cesium pivalate				
	SUB		163.5 ± 7.2			[1998KHO/RYK]
CsI	[7789-17-5]	Cesium iodide				
	SUB		195.6	298	GS	[1998PAN/MAL]
	SUB		193.1	298	T	[1985VEN/PRA, 1998PAN/MAL]
	SUB		193.1	298	T	[1984COR, 1998PAN/MAL]
	SUB		191.1	298	MS	[1984VIS/HIL, 1998PAN/MAL]
Cu						
$C_6H_{12}CuN_2S_4$	[137-29-1]	bis(dimethyldithiocarbamate)copper				
	SUB		156.0 ± 0.3	298	C	[1995RIB/REI]
	SUB	(443–473)	147.4 ± 0.8	458	A	[1987STE/MAL, 1978TAV/NEE]
	SUB		149.0 ± 2.5		GC	[1976TAV/NEE, 1979LAR]
	V	(443–473)	147.4	458		[1999DYK/SVO]
$C_8H_{12}Cu_2O_8$	[24411-13-0]	tetrakis(acetato)dicopper(II)				
	SUB	(321–360)	106.1 ± 0.9	298	ME,TE	[1990RIB/RIB]
$C_8H_{14}CuN_4O_4$	[14221-10-4]	bis(dimethylglyoxime)copper(II)				
	SUB		93.1 ± 0.8	298	TE,ME	[1990RIB/RIB]
$C_{10}H_2CuF_{12}O_4$	[14781-45-4]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)copper(II)				
	SUB		108 ± 6	298	C	[1988RIB/FER3]
	SUB		NA			[1978IGU/CHU]
	V	(353–398)	71.6	376	GC	[1978BUB/MAZ]
$C_{10}H_8CuF_6O_4$	[14324-82-4]	bis(1,1,1-trifluoro-2,4-pentanedionato)copper(II)				
	SUB	(373–403)	112		TGA	[2000FAH/BAR]
	SUB	(342–359)	113.3 ± 2.4	350	TE	[1995RIB/MON]
	SUB		115.9 ± 2.4	298		[1995RIB/MON]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(342–359)	114.4 ± 1.6	350	ME	[1995RIB/MON]
	SUB		117.0 ± 1.6	298		[1995RIB/MON]
	SUB		112 ± 3.0	298	C	[1988RIB/FER3]
	SUB	(383–463)	110. ± 0.8		GS	[1985MAT/KUW]
	SUB		NA			[1978IGU/CHU]
	SUB		U50.6			[1960BER/TRU, 1965BER/TRU]
	SUB	(383–473)	80.4	428	GC	[1978BUB/MAZ]
$C_{10}H_{14}CuO_4$	[13395-16-9]	bis(2,4-pentanedionato)copper(II)				
	SUB	(363–443)	121.6 ± 1.4	403	ME	[2009SID/SID]
	SUB	(413–443)	120		TGA	[2000FAH/BAR]
	SUB	(377–398)	122.5 ± 1.2	387	TE	[1995RIB/MON]
	SUB		127.0 ± 1.2	298		[1995RIB/MON]
	SUB	(377–398)	122.6 ± 0.7	387	ME	[1995RIB/MON]
	SUB		127.1 ± 1.2	298		[1995RIB/MON]
	SUB		122.3 ± 1.1	393	ME	[1995RIB/MON]
	SUB		127.0 ± 1.1	298		[1995RIB/MON]
	SUB		116.6 ± 2.0	298	C	[1994RIB/FER]
	SUB	(315–386)	115.1 ± 2.1	298		[1991MAL/ALI]
	SUB		142.6 ± 6.9	471	DSC	[1987RIB/FER]
	SUB		107.1 ± 5.7	492		[1987MUR/HIL]
	SUB		127.5 ± 3.2	298		[1985MUR/SAK]
	SUB		154 ± 22	298		[1984BUR/MOR]
	SUB		109.9 ± 3.4	298	C	[1984RIB/RIB]
	SUB		57.1		TE	[1981TEG/FER]
	SUB	(423–473)	106.1	448	GC	[1978BUB/MAZ]
	SUB		NA			[1978IGU/CHU]
	SUB		109.6			[1972BOL, 2000DUN]
	SUB		106.1		TG	[1971ASH]
	SUB		109 ± 6	400		[1970GOE/BLO]
	SUB		57.3		DSC	[1971BEE/LIN2]
	SUB		62.8			[1962JON/YOW]
$C_{10}H_{16}CuN_2O_2$	[14404-35-4]	bis(4-amino-3-penten-2-onato)copper				
	SUB	(393–463)	114.2 ± 1.3			[2003STA/BAI]
$C_{10}H_{20}CuN_2S_4$	[13681-87-3]	bis(diethyldithiocarbamate)copper(II)				
	SUB	(420–465)	149.1 ± 0.4	442.5	A	[1987STE/MAL, 1978TAV/NEE]
	SUB		103.8 ± 2.4			[1979CAV/HIL2]
	SUB		116.2 ± 1.3			[1979CAV/HIL]
	SUB		149.0 ± 2.5			[1976TAV/NEE]
	SUB		87 ± 1.7		I	[1969DAS/WEN]
$C_{12}H_{12}CuF_6O_4$	[13681-87-3]	bis(1,1,1-trifluorohexane-2,4-dione)copper(II)				
	SUB		119.1 ± 1.7	298	ME	[1998RIB/GON]
$C_{12}H_{18}CuO_4$	[14781-49-8]	bis(3-methyl-2,4-pentanedionato)copper(II)				
	SUB		130.7 ± 1	396.7	ME	[1992RIB/FER3]
	SUB		135.6 ± 1	298	ME	[1992RIB/FER3]
	SUB		132.7 ± 2.5	298	C	[1992RIB/FER3]
$C_{14}H_{16}CuF_6O_4$	[33896-35-4]	bis(1,1,1-trifluoro-5-methylhexane-2,4-dione)copper(II)				
	SUB		122.4 ± 0.9	298	ME	[1998RIB/GON]
$C_{14}H_{28}CuN_2S_4$	[14354-08-6]	bis(dipropyldithiocarbamate)copper				
	SUB		118.4 ± 3.3			[1978TAV/NEE]
	V	(422–453)	118.4	437		[1999DYK/SVO]
$C_{14}H_{28}CuN_2S_4$	[14354-07-5]	bis(dipropyldithiocarbamate)copper				
	SUB	(440–465)	129.5 ± 2.9	452.5	A	[1987STE/MAL, 1978TAV/NEE]
$C_{16}H_8CuF_6O_4S_2$	[13928-09-1]	bis(thenoyltrifluoroacetonate)copper(II)				
	SUB		167.9 ± 7.4	298	C	[2006RIB/SAN2]
$C_{16}H_8CuF_6O_6$	[13928-10-4]	bis(4,4,4-trifluoro-1-(2-furanyl)butane-1,3-dione)copper(II)				
	SUB		161.1 ± 2.1	298	ME	[1998RIB/GON]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{20}CuF_6O_4$		bis(pivaloyltrifluoroacetonato)copper				
	V	(381–443)	76.5 ± 2.0		GS	[1993SYO/GOL]
$C_{16}H_{20}CuF_6O_4$	[150026-91-8]	bis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)copper(II)				
	SUB		120.2 ± 1.0	298	ME	[1998RIB/GON]
	SUB	(353–379)	102 ± 3	366	T	[1993SYO/GOL]
	V	(381–443)	76.5 ± 2	412	T	[1993SYO/GOL]
$C_{16}H_{20}CuF_6O_4$	[220869-88-5]	bis(1,1,1-trifluoro-5-methylheptane-2,4-dione)copper(II)				
	SUB		122.5 ± 0.9	298	ME	[1998RIB/GON]
$(C_{16}H_{20}CuF_6O_4)$-$(C_{10}H_{20}O_5)$		bis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)copper(II)-15-crown-5 complex				
	V	(368–443)	80.2 ± 2	405	T	[1993SYO/GOL]
$C_{16}H_{20}CuF_6O_4$-$(C_{10}H_{20}O_5)$		bis(pivaloyltrifluoroacetonato)copper-15-crown-5 complex				
	V	(368–443)	80.2 ± 2.0		GS	[1993SYO/GOL]
$C_{16}H_{26}CuO_4$	[15716-72-0]	bis(5,5-dimethyl-2,4-hexanedionato)copper(II)				
	SUB		NA			[1978IGU/CHU]
$C_{18}H_{12}CuN_2O_2$	[10380-28-6]	bis(8-hydroxyquinolinato)copper(II)				
	SUB		168.7 ± 7.3	298	ME	[1994RIB/MAT]
	SUB	(478–503)	160.3 ± 3	491	ME	[1984BUR/MOR]
	SUB		170 ± 3	298		[1984BUR/MOR]
$C_{18}H_{14}CuN_4$	[41283-96-9]	Dibenzotetra-aza-annulene copper(II) complex				
	SUB	(493–553)	99.7 ± 8.7	523	T	[1983FER/QUA]
$C_{18}H_{30}CuO_4$	[15321-96-7]	bis(2,2-dimethylheptan-3,5-dionato)copper(II)				
	SUB	(344–364)	125.0 ± 1.3	354	TE	[1995RIB/MON]
	SUB	(344–364)	127.8 ± 1.3	298	TE	[1995RIB/MON]
	SUB	(344–364)	125.1 ± 0.5	354	ME	[1995RIB/MON]
	SUB	(344–364)	127.9 ± 0.5	298	ME	[1995RIB/MON]
	SUB		122.8 ± 1.7	298	C	[1984RIB/RIB]
$C_{18}H_{30}CuO_4$	[17653-77-9]	bis(2,6-dimethylheptan-3,5-dionato)copper(II)				
	SUB		118.0 ± 347	298	C	[1984RIB/RIB]
$C_{18}H_{36}CuN_2S_4$	[13927-71-4]	bis(dibutyldithiocarbamate)copper				
	V	(423–468)	121.8	445		[1999DYK/SVO]
$C_{18}H_{36}CuN_2S_4$	[51205-55-1]	bis(diisobutyldithiocarbamate)copper				
	V	(425–445)	101.8	435		[1999DYK/SVO]
$C_{20}H_{12}CuF_6O_4$	[14126-89-7]	bis(4,4,4-trifluoro-1-phenylbutane-1,3-dione)copper(II)				
	SUB		172.1 ± 3.1	298	ME	[1998RIB/GON]
$C_{20}H_{16}CuN_2O_2$	[14522-43-1]	bis(8-hydroxy-2-methylquinolinate)copper(II)				
	SUB	(402–419)	166.5 ± 3.4	410	ME	[1998RIB/MAT3]
	SUB	(402–419)	172.1 ± 3.4	298	ME	[1998RIB/MAT3]
$C_{20}H_{18}CuO_4$	[14128-84-8]	bis(1-phenylbutane-1,3-dionato)copper(II)				
	SUB	(429–450)	152.2 ± 1.7	439	TE	[1995RIB/MON]
	SUB	(429–450)	159.3 ± 1.7	298	TE	[1995RIB/MON]
	SUB	(429–450)	152.2 ± 1.9	439	ME	[1995RIB/MON]
	SUB	(429–450)	159.3 ± 1.9	298	ME	[1995RIB/MON]
	SUB		160 ± 4	298	C	[1979RIB/REI]
$C_{20}H_{20}CuF_{14}O_4$	[38926-19-1]	bis(1,1,1,2,2,3,3-hetafluoro-7,7-dimethyloctane-4,6-dionato)copper(II)				
	SUB		122.8 ± 0.7	298	ME	[1998RIB/GON]
	SUB		NA			[1978IGU/CHU]
$C_{20}H_{34}CuO_4$	[41752-16-3]	bis(2,2,6-trimethylheptan-3,5-dionato)copper(II)				
	SUB	(346–362)	127.4 ± 0.7	354	ME	[1995RIB/MON]
	SUB		130.2 ± 0.7	298		[1995RIB/MON]
	SUB	(346–362)	127.8 ± 1.5	354	TE	[1995RIB/MON]
	SUB		130.6 ± 1.5	298		[1995RIB/MON]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		129.0 ± 1.3	351	ME	[1995RIB/MON]
	SUB		131.7 ± 1.3	298		[1995RIB/MON]
	SUB		126.4 ± 1.1	298	C	[1984RIB/RIB]
$C_{22}H_{24}CuN_2O_2$	[15214-38-7]	bis[(4-phenylimino)-2-pentanoato)]copper(II)				
	SUB		128.1 ± 0.8	298	ME,TE	[1990RIB/RIB]
$C_{22}H_{36}CuF_2O_4$	[1148044-73-8]	bis(2,2,6,6-tetramethyl-4-fluoroheptane-2,4-dionato)copper(II)				
	SUB	(392–453)	115.6 ± 1.1	422	ME	[2008ZHE/MOR2]
$C_{22}H_{38}CuO_4$	[14040-05-2]	bis(2,2,6,6-tetramethyl-heptane-3,5-dionato)copper(II)				
	SUB	(365–408)	126.4 ± 3.1	386	ME	[2010SID/SID]
	SUB	(375–435)	96 ± 2		GS	[2009JOH/SEL]
	SUB		127.6 ± 0.4	361	TE	[2001COL/LAU]
	SUB		127.2 ± 1.7	351	TE	[2001COL/LAU]
	SUB	(433–463)	120		TGA	[2000FAH/BAR]
	SUB	(400–430)	74.8		TGA,DTA	[1996YUA/MEN]
	SUB	(392–415)	100	404	T	[1996RAP/DES]
	SUB		124.5 ± 0.8	372	ME	[1995RIB/MON]
	SUB		129.1 ± 0.8	298		[1995RIB/MON]
	SUB	(362–452)	124.6	407		[1993TOB/LAN]
	SUB	(418–473)	123.6	445		[1992WAF/MUS]
	SUB		105.9		GS	[1990YUH/KIK]
	SUB		111.6			[1988FED/VOI, 1993TOB/LAN]
	SUB		122.8 ± 6.5	298	C	[1984RIB/RIB]
	SUB	(434–468)	111.8 ± 1.7			[1979IGU/CHU]
	V	(468–519)	77.8 ± 0.8			[1979IGU/CHU]
$C_{24}H_{30}CuN_4O_4$		bis(*N*-benzoyl-*N′*,*N′*-diethylureato)copper(II)				
	SUB		180.9 ± 3.7	298	C	[2001RIB/RIB2]
$C_{28}H_{16}CuF_6O_4$	[30983-56-3]	bis(4,4,4-trifluoro-1-(2-naphthalenyl)butane-1,3-dione)copper(II)				
	SUB		208.4.1 ± 4.9	298	ME	[1998RIB/GON]
$C_{30}H_{22}CuO_4$	[58179-06-9]	bis(dibenzyoylmethanato)copper(II)				
	SUB		230.7 ± 8.2	298	C	[2006RIB/SAN2]
$C_{30}H_{54}CuO_6$	[952723-42-1]	bis(2,6-dimethyl-6-methoxydodecane-3,5-dionato) copper(II)				
	V	(340–395)	126.6 ± 1.9	367	ME	[2006LIS/SEM]
$C_{32}F_{16}CuN_8$	[14916-87-1]	Copper(II) hexadecafluorophthalocyanine				
	SUB	(631–763)	200.8 ± 7.1		ME	[2006SEM/BAS]
$C_{32}H_{16}CuN_8$		Copper(II) α-phthalocyanine				
	SUB		114		TGA	[1995YAS/TAK]
$C_{32}H_{16}CuN_8$	[147-14-8]	Copper(II) β-phthalocyanine				
	SUB	(653–733)	177.1 ± 1.0		TGA	[2013SHA/SHT]
	SUB	(618–713)	231.8 ± 2.1		ME	[2000SEM/BAS, 2006SEM/BAS]
	SUB		211.1		TGA	[1995YAS/TAK]
	SUB	(657–863)	266.1			[1969HAM]
	SUB	(657–722)	266.1 ± 5.1		ME	[1965CUR/SHA, 1970BON/CAT]
$C_{39}H_{59}F_{12}O_8CuY$	[160364-36-3]	bis(hexafluoroisopropoxy)tris(2,2,6,6-tetramethylheptan-3,5-dionato)copper(II)yttrium(III)				
	SUB	(370–410)	81.2	390		[1996LAB/HUB]
$C_{44}H_{28}CuN_4$	[14172-91-9]	5,10,15,20-tetraphenylporphine copper(II)				
	FUS		51.6	741.4	DSC	[2010GAM/CAM]
	SUB		160 ± 5		GS	[2000PER/GOL]
$C_{48}H_{48}CuN_4$	[30753-88-9]	2,9,16,23-tetra-*tert*-butylphthalocyaninato copper(II)				
	SUB	(310–440)	185.8 ± 6.3		ME	[2010PLY/BAS]
CuBr	[7787-70-4]	Copper(I) bromide				
	TRS	(298–1300)	4.6	657		
	TRS	(298–1300)	2.1	741		

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS	(298–1300)	5.1	759	DSC,C	[1984FER/BRO]
	SUB	(529–658)	124.2 ± 3.1	594	ME,MS	[2014IIZ/SHI]
Dy						
$C_{15}H_{15}Dy$	[12088-04-9]	tris(cyclopentadienyl)dysprosium(III)				
	SUB		105.0 ± 2.1			[1973DEV/BOR]
$C_{15}H_{21}DyO_6$	[14637-88-8]	tris(2,4-pentanedionato)dysprosium(III)				
	FUS		46.0	376.2	DSC	[1971PRZ/BOS]
$C_{30}H_{30}DyF_{21}O_6$	[18323-98-3]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)dysprosium(III)				
	SUB	(370–385)	156.5 ± 2.9		ME	[1971SWA/KAR]
$C_{33}H_{57}DyO_6$	[15522-69-7]	tris(2,2,6,6-tetramethylpentane-2,4-dionato)dyprosium(III)				
	SUB	(373–388)	171.5	380	ME	[1981AMA/SAT]
	SUB	(388–413)	152.7	400	ME	[1981AMA/SAT]
	SUB	(410–456)	133.5	433	BG	[1969SIC/DUB]
	V	(456–500)	86.2		BG	[1969SIC/DUB]
$DyBr_3$	[14456-48-5]	dysprosium tribromide				
	SUB	(878–1151)	289 ± 6.0	298	TE	[1999BRU/VAS]
$DyCl_3$	[10025-74-8]	Dysprosium trichloride				
	SUB	(924–1214)	283 ± 5.0	298	TE	[1999BRU/VAS]
DyI_3	[15474-63-2]	Dysprosium triiodide				
	SUB	(833–1053)	274.8 ± 8.2	298	ME	[2004HIL/MIL]
	SUB	(889–1157)	282 ± 4.0	298	TE	[1999BRU/VAS]
	SUB		292 ± 12			[1983KAP/LEL]
	SUB	(843–1060)	269.7 ± 2.5	951	ME	[1975HIR/ROM]
	SUB	(843–1060)	286.2 ± 2.5	298	ME	[1975HIR/ROM]
Er						
$C_{15}H_3ErF_{18}O_6$	[70332-27-3]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)erbium(III)				
	SUB		133 ± 4	362	ME,MS	[2007GIR/SKL]
$C_{15}H_{12}ErF_9O_6$	[70332-27-3]	tris(1,1,1-trifluoro-2,4-pentanedionato)erbium(III)				
	SUB	(473–494)	79.5 ± 11.5	484		[1996ZVE/CHE]
$C_{15}H_{15}Er$	[39330-74-0]	tris(cyclopentadienyl)erbium(III)				
	SUB	(503–558)	97.2 ± 3.2	530		[1996ZVE/CHE]
	SUB		97.1 ± 3.3			[1973DEV/BOR]
$C_{15}H_{21}ErO_6$	[14553-08-3]	tris(2,4-pentanedionato)erbium(III)				
	FUS		47.3	376.2	DSC	[1971PRZ/BOS]
$C_{24}H_{33}Er$	[130521-76-5]	tris[(1,2,3,4,5-η)-1-(1-methylethyl)-2,4-cyclopentadien-1-yl]erbium(III)				
	SUB	(464–502)	78.6 ± 3.0	483		[1996ZVE/CHE]
$C_{30}H_{30}ErF_{21}O_6$	[17978-75-5]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)erbium(III)				
	SUB	(349–362)	154.8 ± 4.2		ME	[1971SWA/KAR]
$C_{33}H_{57}ErO_6$	[14319-09-6]	tris(2,2,6,6-tetramethylheptane-3,5-dionato)erbium(III)				
	SUB		130.8 ± 2.2	298	DSC	[1999SAN/PET]
	SUB	(471–505)	93.9 ± 4.6	488		[1996ZVE/CHE]
	SUB	(363–418)	154	390	ME	[1981AMA/SAT]
	SUB	(358–381)	149.3 ± 1.7		ME	[1971SWA/KAR]
	SUB	(410–454)	133.2	432	BG	[1969SIC/DUB]
	V	(454–490)	85.6		BG	[1969SIC/DUB]
ErI_3	[13813-42-8]	Erbium triiodide				
	SUB	(898–1016)	289.4 ± 4.7	957	ME	[1975HIR/ROM]
	SUB	(898–1016)	306.3 ± 4.7	298	ME	[1975HIR/ROM]
Eu						

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_3EuF_{18}O_6$	[14592-81-5]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)europium(III)				
	SUB	(340–380)	129.4 ± 9.5			[2007MAL/ALI]
[Note: The authors report that the vapor phase consists largely of dimers.]						
$C_{33}H_{57}EuO_6$	[15522-71-1]	tris(2,2,6,6-tetramethylheptane-3,5-dionato)europium(III)				
	SUB	(363–433)	179.9	398	ME	[1981AMA/SAT]
	SUB	(373–423)	180		ME	[1979AMA/SAT]
	SUB	(430–466)	165.4	448	BG	[1969SIC/DUB]
	V	(466–490)	87.4		BG	[1969SIC/DUB]
$EuBr_2$	[13780-48-8]	Europium dibromide				
	FUS	(300–1100)	22.2	941	DSC	[2010SER/MOT]
	SUB	(1049–1261)	354.4 ± 5.0	298	MS	[2010SER/MOT]
F						
F_2IPS	[21348-11-8]	Phosphorothioic difluoride iodide				
	V	(236–299)	31.9	267		[1968CHA/CAV]
F_3NO	[13847-65-9]	Trifluoroamine oxide				
	V	(116–191)	16.1			[1968FOX/MAC]
F_5I	[7783-66-6]	Iodine pentafluoride				
	V	(283–378)	39.3	330		[1971OSB/SCH]
F_5IO	[16056-61-4]	Iodine oxyfluoride				
	SUB	(195–273)	31.7			[1968SCH/PIL]
F_7I	[16921-96-3]	Iodine heptafluoride				
	SUB	(193–273)	25.1			[1968SCH/PIL]
	SUB	(210–273)	30.7	241		[1930RUF/KEI]
HF	[7664-39-3]	Hydrogen fluoride				
	V	(240–290)	25.2	265		[1934CAM/CAM]
	V	(190–320)	25.2	255		[1924SIM]
Fe						
$C_2FeN_2O_4$	[13682-74-1]	Dicarbonyldinitrosyl iron				
	SUB	(272–291)	47.2	281.5		[1987STE/MAL]
$C_4FeI_2O_4$	[14878-30-9]	Irontetracarbonyl diiodide				
	SUB		86.0 ± 4.0	298		[1982PIL/SKI, 1979CON/DEM]
$C_4H_6FeO_4Si_2$	[26469-80-7]	Tetracarbonyl disilyl iron				
	V	(329–377)	43.8	353	T	[1969AYL/CAM3]
$C_4H_{16}Cl_2FeN_8S_4$	[28813-18-5]	*trans*-dichloro-tetrakis(thiourea)iron(II)				
	SUB	(372–405)	110 ± 20			[1970ASH]
C_5FeO_5	[13463-40-6]	Iron pentacarbonyl				
	V	(254–304)	40.1 ± 0.5	279		[1974GIL/SUL]
	V	(266–353)	39.0	309		[1970VAL/KIL]
	V		38.1 ± 0.4	298		[1959LEA/SPI]
	V		40.2 ± 0.8			[1959COT/FIS, 1982PIL/SKI]
	V	(266–378)	37.6	281		[1947STU]
$C_6H_5FeIO_3$	[12189-10-5]	Allylirontricarbonyl iodide				
	SUB		84.5 ± 4.0	298		[1982PIL/SKI, 1979CON/DEM]
$C_7H_6FeO_3$	[12078-32-9]	1,3-butadiene iron tricarbonyl				
	V		49.0 ± 4.2			[1976BRO/CON, 1982PIL/SKI]
$C_8H_6Fe_2O_6S_2$	[14878-96-7]	Hexacarbonylbis(methanethiolato)diiron				
	SUB		102.8	333	C	[1995CON/GOB]
	SUB		109.8	298		[1995CON/GOB]
$C_9Fe_2O_9$	[15321-51-4]	Diiron nonacarbonyl				
	SUB	(296–314)	135.3	305	A	[1987STE/MAL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		75.3 ± 21.0	298		[1982PIL/SKI, 1972CON/SKI]
C_9H_9FeN	[11077-12-6]	Azaferrocene				
	TRS	(10–300)	0.65	278.5		
	TRS	(10–300)	6.75	289.5	AC	[1984CHH/POM]
C_9H_9FeP	[63287-55-8]	Phosphaferrocene				
	TRS		7.33	266	DSC	[1984CHH/POM]
$C_9H_{12}FeO$		bis(1,3-butadiene)ironcarbonyl				
	SUB		76.1 ± 4.2	298		[1982PIL/SKI, 1976BRO/CON]
$C_{10}H_{10}Fe$	[102-54-5]	Ferrocene				
	FUS		18.1	446.9	DSC	[2013FUL/RUZ]
	FUS		17.2	447.9	DSC	[2011VIE/ROJ]
	FUS		17.8	448.0	DSC	[2011ROJ/VIE]
	FUS		17.8	448.5	DSC	[2008LOU/PIN]
	FUS		17.49	447	DSC	[2002ESP/BAR]
	FUS		17.49	447.6	DSC	[2001DAB/MIS]
	FUS		20.0	451.2	DSC	[1995FAN/HOR]
	FUS		18.1	448.9	DSC	[1995TOR/GUD2]
	FUS		17.0	448.4	DTA	[1997SAB/PER2]
	FUS		18.3	446.2	DSC	[1980MUR/CAV]
	FUS		17.5	449.6	DSC	[1983JAC/VAN]
	TRS		0.9	163.9		
	TRS		4.14	242		
	FUS		17.78	448.2		[1981OGA/SOR, 1969JOE/GJA]
	FUS		18.5		DSC	[1971BEE/LIN]
	SUB		72.4 ± 0.6		UV/Vis	[2015HIK/WEE]
	SUB	(323–353)	73.0 ± 0.1	338	UV/Vis	[2013HIK/WEE]
	SUB		72.2 ± 1.2	333	DSC	[2011ROJ/VIE]
	SUB		73.3 ± 1.2	333	C	[2011ROJ/VIE]
	SUB		71.0 ± 1.3	328	Langmuir	[2011ROJ/VIE]
	SUB		73.3 ± 1.9	298	ME	[2008LOU/PIN]
	SUB	(298–304)	73.2 ± 1.9	301	ME	[2008LOU/PIN]
	SUB		72.7 ± 0.2	298	C	[2008LOU/PIN]
	SUB	(295–325)	72.7 ± 1.0	310	TGA	[2007SID/ATA]
	SUB	(290–363)	72.7 ± 0.2	298	GS	[2007EME/VER]
	SUB	(288–356)	73.5 ± 0.1	322	Static	[2006MON/SAN, 2007EME/VER]
	SUB	(288–356)	74.1 ± 0.1	298	Static	[2006MON/SAN, 2007EME/VER]
	SUB		74.9 ± 1.7	298	C	[2004SAN/SCH]
	SUB		72.6 ± 0.1	313	C	[2001KIY/MIN, 2007EME/VER]
	SUB		73.3 ± 0.1	298	C	[2001KIY/MIN, 2007EME/VER]
	SUB		73.1 ± 1.4	333	DSC	[2001ROJ/ORO, 2007EME/VER]
	SUB		74.1 ± 1.4	298	DSC	[2001ROJ/ORO, 2007EME/VER]
	SUB		74.3 ± 0.4	298	ME	[1995TOR/GUD2]
	SUB		73.2 ± 0.7	298	C	[1995TOR/GUD2]
	SUB	(292–300)	72.5 ± 1.0	296	ME	[1990RIB/MON]
	SUB		72.4 ± 1.0	298		[1990RIB/MON]
	SUB	(294–302)	70.3 ± 1.0	298	ME	[1989MIN, 1990RIB/MON]
	SUB	(278–309)	72.1 ± 0.4	294	ME	[1988TOR/BAR2]
	SUB		71.9 ± 0.4	298		[1988TOR/BAR2]
	SUB	(348–446)	64.6	397	A	[1987STE/MAL]
	SUB		75.6 ± 0.4	298	TE,ME,DM	[1983JAC/VAN]
	SUB		74.0 ± 2	298	TE	[1981PEL/TOM]
	SUB	(328–398)	70.0 ± 2		DSC	[1980MUR/CAV]
	SUB	(328–398)	71.9 ± 2.0	298	DSC	[1980MUR/CAV, 2007EME/VER]
	SUB		72.6 ± 1.4	298	ME	[1980CAL/DIA]
	SUB	(348–451)	67.9	298	SUB	[1977BAR/GAI, 2007EME/VER]
	SUB		73.6 ± 0.4	298		[1982PIL/SKI, 1975TEL/KIR]
	SUB		74.1 ± 1.7	298	TCM	[1973DEK/OON]
	SUB	(385–455)	84.0 ± 2.0		DSC	[1971BEE/LIN]
	SUB	(385–455)	87.6 ± 2.0	298	DSC	[1971BEE/LIN, 2007EME/VER]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		72.7 ± 2	298	ME	[1969AND/WES]
	SUB		76.6 ± 1	298	ME	[1962EDW/KIN]
	SUB	(295–303)	76.8 ± 0.9	298	ME	[1960EDW/KIN, 2007EME/VER]
	SUB	(323–367)	83.3	345	ME	[1959COR/SCH]
	SUB	(323–367)	84.7	298	ME	[1959COR/SCH, 2007EME/VER]
	SUB	(357–455)	70.5	406		[1952KAP/KES]
	SUB	(357–455)	73.7	298	BG	[1952KAP/KES, 2007EME/VER]
	V	(456–523)	47.3	471	A	[1987STE/MAL, 1999DYK/SVO]
	V	(451–523)	49.8	466	A	[1987STE/MAL, 1977BAR/GAI]
	V	(519–604)	44.7	561	EB	[1972NIS/SOK]
	V	(519–604)	64.7 ± 0.4	298	EB	[1972NIS/SOK, 2007EME/VER]
	V		47.3	456		[1952KAP/KES]
$C_{10}H_{10}Fe_2O_6S_2$	[28829-01-8]	Hexacarbonylbis(ethanethiolato)diiron				
	SUB		105.4	340	C	[1995CON/GOB]
	SUB		112	298	C	[1995CON/GOB]
$C_{10}H_{14}FeO_4$	[14024-17-0]	bis(2,4-pentanedionato)iron(II)				
	SUB	(330–368)	131.2 ± 8.7	298	ME	[1990MAL/ALI]
	SUB		117.6	385		[1970GOE/BLO]
$C_{11}H_8FeO_3$	[12093-05-9]	Cyclooctatetraeneirontricarbonyl				
	SUB		87.0 ± 4.0	298		[1982PIL/SKI, 1979CON/DEM]
$C_{11}H_{10}FeO$	[12093-10-6]	Ferrocenecarboxaldehdye				
	TRS		11.6	317.4		
	FUS		2.5	397.2	DSC	[2008LOU/PIN]
	TRS		0.89	293.5		
	TRS		13.3	317		
	FUS	(13–405)	2.76	397.6	AC	[2007KAN/SOR]
	TRS		11.7	316.4		
	FUS		2.05	396.7		[1978DAN/LEA]
	SUB		89.7 ± 5.1	298	ME	[2008LOU/PIN]
	SUB	(302–312)	89.9 ± 5.1	305	ME	[2008LOU/PIN]
	SUB		87.9 ± 3.5	298	ME	[2008LOU/PIN]
	SUB	(302–312)	87.3 ± 3.5	310	ME	[2008LOU/PIN]
$C_{11}H_{12}FeO$	[1273-86-5]	Ferrocenemethanol				
	FUS		22.91	347.8	AC	[2007KRO/DRU]
	FUS		23.7	352.2	DSC	[2007EME/VER]
	FUS		23.82	351.4	DSC	[2001DAB/MIS]
	SUB	(313–320)	102.8 ± 0.5	298	GS	[2007EME/VER]
	V	(353–393)	87.0 ± 0.8	298	GS	[2007EME/VER]
$C_{12}H_{12}FeO$	[1271-55-2]	Acetylferrocene				
	SUB	(329–358)	115.6 ± 2.5	298		[1981PEL/TOM]
$C_{12}H_{14}Fe$	[1273-89-8]	Ethyl ferrocene				
	FUS		12.29	273.9		[2003KOZ/KAR, 2003KAR/KOZ]
	V	(297–320)	65.1 ± 2.7	308	ME	[2003KAR/KOZ]
$C_{12}H_{14}Fe$	[1291-47-0]	1,1′-dimethylferrocene				
	FUS		17.66	312.6	DSC	[2008LOU/PIN]
	SUB		84.5 ± 1.9	298	ME	[2008LOU/PIN]
$C_{12}H_{14}FeO$	[1277-49-2]	1-ferrocenyl ethanol				
	FUS		14.75	343.7	DSC	[2008LOU/PIN]
	FUS		26.65	366.5	DSC	[2001DAB/MIS]
	SUB		102.4 ± 0.9	298	C	[2008LOU/PIN]
$C_{12}Fe_3O_{12}$	[17685-52-8]	Triiron dodecacarbonyl				
	SUB		96.0 ± 21.0	298		[1982PIL/SKI, 1972CON/SKI]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{13}H_{14}FeO$	[1271-79-0]	Propanoyl ferrocene				
	FUS		19.2	311.6	AC	[2009KRO/DRU]
	FUS		19.7	311.6	DSC	[2009KRO/DRU]
	SUB		99.0 ± 1.5	298	GS	[2009KRO/DRU]
	V	(316–318)	80.8 ± 0.8	298	GS	[2010EME/KRO]
	V		80.7 ± 0.8	298	GS	[2009KRO/DRU]
$C_{13}H_{16}Fe$	[1273-92-3]	Propyl ferrocene				
	TRS		1.23	186.7		
	FUS		12.7	276.8	AC	[2009KRO/DRU]
	FUS		14.6	278.2	DSC	[2009KRO/DRU]
	V	(298–358)	69.2 ± 0.7	298	GS	[2010EME/KRO]
	V		69.4 ± 0.8	298	GS	[2009KRO/DRU]
$C_{13}H_{16}FeO$	[34978-83-1]	bis(1,3-cyclohexadiene)ironcarbonyl				
	SUB		95.0 ± 4.2	298		[1982PIL/SKI, 1976BRO/CON]
$C_{13}H_{17}NFe$	[1271-86-9]	*N*,*N* dimethyl(aminomethyl) ferrocene				
	FUS		14.6	281.5	DSC	[2008LOU/PIN]
	TRS		0.32	134		
	FUS		15.01	280.9		[2003KAR/KOZ]
	FUS		15.01	279.9		[2002KAR/SHE]
	V		73.8 ± 0.4	298	C	[2008LOU/PIN]
	V	(295–319)	66.3 ± 3.9	307	ME	[2003KAR/KOZ]
$C_{14}H_{10}Fe_2O_4$	[12154-95-9]	bis(η^5-cyclopentadienylirondicarbonyl)				
	FUS		30.8	472.9	AC,DSC	[2008KOZ/MAR]
$C_{14}H_{14}FeO_2$	[1273-94-5]	1,1′-diacetylferrocene				
	SUB	(360–400)	91.9 ± 2.5	298		[1981PEL/TOM]
$C_{14}H_6FeO$	[41406-84-2]	Isobutanoylferrocene				
	FUS		15.05	294.6	AC	[2010KRO/DRU]
$C_{14}H_{18}Fe$	[31904-29-7]	*n*-butylferrocene				
	FUS			21.43	281.5	[2002KOZ/KAR, 2003KAR/KOZ]
	V	(315–333)	75.0 ± 3.0	324	ME	[2003KAR/KOZ]
$C_{14}H_{18}Fe$	[97000-66-3]	Isobutylferrocene				
	FUS		15.9	280.3	DSC	[2010KRO/DRU]
	FUS	(7–372)	15.33	280.0	AC	[2010EME/KRO]
	V	(308–362)	70.7 ± 0.7	298.0	GS	[2010EME/KRO]
$C_{14}H_{18}Fe$	[1273-97-8]	1,1′-diethylferrocene				
	FUS	(5–300)	21.03	236.9	AC	[1999DOM/KAR]
$C_{15}H_3F_{18}FeO_6$	[17786-67-3]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)iron(III)				
	SUB	(333–363)	60.0		TGA	[2000FAH/BAR]
$C_{15}H_{12}F_9FeO_6$	[14526-22-8]	tris(1,1,1-trifluoro-2,4-pentanedionato)iron(III)				
	SUB	(373–403)	96.0		TGA	[2000FAH/BAR]
	SUB	(378–438)	104.6 ± 0.8		GS	[1985MAT/KUW]
	SUB		80.3	433		[1977VOL/MAZ]
	SUB		128.9	345		[1970GOE/BLO]
	SUB		87.0			[1960BER/TRU, 1965BER/TRU]
	V	(392–428)	87.0 ± 1.2	410		[1978CHU/IGU]
$C_{15}H_{18}FeOS_2$	[122380-51-2]	1,4,6-oxadithiacyclooctan-5-ylferrocene				
	FUS		24.4	383.3	DSC	[1992HUA/WAN]
$C_{15}H_{21}FeO_6$	[14024-18-1]	tris(2,4-pentanedionato)iron(III)				
	FUS		30.1	459	DSC	[2004SAB/MAR]
	FUS		25.3	460	DSC	[2004SAB/MAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		22.6	462		[1984MUR/HIL]
	FUS		25.9	454		[1970MEL/MER2]
	SUB	(413–443)	112		TGA	[2000FAH/BAR]
	SUB		118		TGA	[1997GIL/BOT]
	SUB	(369–388)	124.6 ± 0.9	378	TE,ME	[1996RIB/MON]
	SUB		128.6 ± 0.9	298		[1996RIB/MON]
	SUB	(338–355)	114.2 ± 1.5			[1992GER/GER]
	SUB	(309–360)	126.4 ± 3.1	298	ME	[1990MAL/ALI]
	SUB		138.4 ± 5.2	298	C	[1985MUR/SAK]
	SUB		100	395	T	[1981MAS/BAR]
	SUB		113.6 ± 3.8			[1980SAC/HIL]
	SUB		99 ± 0.8			[1979RIB/REI, 1981MAS/BAR, 1970MEL/MER2]
	SUB		114.2	385		[1970GOE/BLO]
	SUB		65.3 ± 3.3	298		[1968HIL/IRV2]
	SUB		97.9		I	[1982PIL/SKI, 1964FAR/JON]
	SUB		81.6			[1960BER/TRU, 1965BER/TRU]
$C_{15}H_{30}FeN_3S_6$	[34768-31-5]	tris(diethyldithiocarbamoto)iron(II)				
	SUB		65.7 ± 1.7	246		[1970DAS/WEN]
$C_{17}H_{14}FeO$	[1272-44-2]	Benzoylferrocene				
	FUS	(6–372)	29.9	380.7	AC	[2008KRO/DRU]
	SUB	(342–379)	119.9 ± 0.7	298	GS	[2007EME/VER]
	SUB	(358–382)	116.3 ± 6	298	TE,ME	[1983PEL/GIG]
	V	(384–429)	98.2 ± 0.3	298	GS	[2007EME/VER]
$C_{17}H_{16}Fe$	[32994-54-0]	(phenylmethyl)ferrocene				
	FUS	(6–372)	26.8	349.9	AC	[2008KRO/DRU]
	SUB	(312–341)	109.3 ± 0.7	298	GS	[2007EME/VER]
	V	(351–377)	90.6 ± 0.6	298	GS	[2007EME/VER]
$C_{17}H_{22}FeO_2S_2$	[122395-65-7]	1,9-dioxa-4,6-dithiacyclundecan-5-ylferrocene				
	FUS		29.4	371.7	DSC	[1992HUA/WAN]
$C_{18}H_{27}FeO_6$	[13978-46-6]	tris(3-methylpentane-2,4-dionato)iron(III)				
	SUB		164.5	422		[1992RIB/FER]
$C_{19}H_{26}FeO_2S_3$	[122395-70-4]	1,9-dioxa-4,6,12-trithiacycltetracecan-5-ylferrocene				
	FUS		40.0	367.1	DSC	[1992HUA/WAN]
$C_{19}H_{26}FeO_3S_2$	[122395-66-8]	1,9,12-trioxa-4,6-dithiacyclotetradecan-5-ylferrocene				
	FUS		32.1	349.7	DSC	[1992HUA/WAN]
$C_{20}H_{30}Fe$	[12126-50-0]	bis(η^5-pentamethylcyclopentadientyl)iron				
	TRS		4.3	402.6		
	TRS		4.87	503.7	DSC	[2008LOU/PIN]
	Decomposed upon melting					
	SUB		99.0 ± 2.4	298	ME	[2008LOU/PIN]
	SUB	(355–376)	95.7 ± 2.4	365	ME	[2008LOU/PIN]
	SUB		96.8 ± 0.6	298	C	[2001KIY/MIN]
$C_{24}H_{12}F_9FeO_6S_3$	[14319-78-9]	tris(1-(2-thenoyl)-4,4,4-trifluoro-1,3-butanedione)ironIII)				
	SUB		U46.4			[1960BER/TRU, 1965BER/TRU]
$C_{24}H_{18}FeO_2$	[12180-80-2]	1,1′-dibenzoylferrocene				
	SUB	(358–381)	109.3 ± 6	298	TE,ME	[1983PEL/GIG]
$C_{30}H_{27}FeO_6$	[14323-17-2]	tris(benzoylacetonato)iron(III)				
	SUB		U45.6		I	[1964FAR/JON]
$C_{32}H_{16}FeN_8$	[132-16-1]	Iron(II) phthalocyanine				
	SUB	(733–813)	198.0 ± 0.5		TGA	[2013SHA/SHT]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{33}H_{57}FeO_6$	[14876-47-2]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)iron(III)				
	SUB	(341–408)	131.9 ± 2.6	374	ME	[2010SID/SID]
	SUB	(413–443)	111		TGA	[2000FAH/BAR]
	SUB	(360–378)	128.5 ± 0.9	369	TE,ME	[1996RIB/MON]
	SUB		129.3 ± 1.2	298		[1996RIB/MON]
	SUB		106.7		ME	[1973BRU/CUR]
$C_{34}H_{28}FeP_2$	[12150-46-8]	1,1-bis(diphenylphosphino)ferrocene				
	FUS		44.3	459.2	DSC	[1995FAN/HOR]
$C_{34}H_{28}FeP_2S_2$	[170656-69-6]	1,1′-bis(diphenylthiophosphinyl)ferrocene				
	FUS		38.6	520.2	DSC	[1995FAN/HOR]
$C_{39}H_{44}FeO_4$	[1801519-79-8]	Chemical name not assigned yet				
	FUS		43.2	398.1	DSC	[2015ZHA/ZHU]
$C_{40}H_{48}FeO_4$	[1801519-85-6]	Chemical name not assigned yet				
	TRS		11.1	329.5		
	FUS		36.8	310.0	DSC	[2015ZHA/ZHU]
$C_{41}H_{48}FeO_4$	[1801519-80-1]	Chemical name not assigned yet				
	TRS		2.6	330.9		
	FUS		44.3	389.1	DSC	[2015ZHA/ZHU]
$C_{43}H_{52}FeO_4$	[1801519-81-2]	Chemical name not assigned yet				
	FUS		63.9	398.0	DSC	[2015ZHA/ZHU]
$C_{44}H_{50}FeO_4$	[1801519-87-8]	Chemical name not assigned yet				
	FUS		32.2	412.0	DSC	[2015ZHA/ZHU]
$C_{45}H_{33}FeO_6$	[14405-49-3]	tris(dibenzoylmethano)iron(III)				
	SUB		U31.8		I	[1964FAR/JON]
$C_{45}H_{56}FeO_4$	[1801519-82-3]	Chemical name not assigned yet				
	FUS		60.8	393.8	DSC	[2015ZHA/ZHU]
	[7789-46-0]	Iron(II) dibromide				
Br_2Fe	SUB	(655–833)	197.6 ± 2.0	744	TE,ME	[1996BAR/BRU]
	SUB		208 ± 2.0	298		[1996BAR/BRU]
	SUB	(680–720)	196 ± 8	700	TE	[1996BAR/BRU, 1960SIM/GRE]
	SUB	(673–962)	197 ± 2	817	GS	[1996BAR/BRU, 1955MAC/GRE]
	SUB		210 ± 6	298		[1996BAR/BRU, 1955MAC/GRE]
	SUB	(623–718)	197 ± 4	670	ME	[1996BAR/BRU, 1955MAC/GRE]
$FeCl_2$	[7758-94-3]	Iron(II) dichloride				
	SUB	(693–866)	198.9 ± 2.0	780	TE,ME	[1996BAR/BRU]
	SUB		204 ± 4.0	298		[1996BAR/BRU]
	SUB	(694–745)	189 ± 8	719	TE	[1960SIM/GRE, 1996BAR/BRU]
	SUB	(621–658)	186 ± 12	640	MS	[1958SCH/POR, 1996BAR/BRU]
	SUB		193 ± 12	298		[1958SCH/POR, 1996BAR/BRU]
FeF2	[7789-28-8]	Iron(II) difluoride				
	SUB	(958–1178)	263 ± 2.0	1068	TE,ME	[1996BAR/BRU]
	SUB		271 ± 2.0	298		[1996BAR/BRU]
	SUB	(848–1142)	263 ± 3	995	ME	[1976ZHU/ALI, 1996BAR/BRU]
	SUB		270 ± 3	298		[1976ZHU/ALI, 1996BAR/BRU]
Ga						
C_3H_9Ga	[1445-79-0]	Trimethyl gallium				
	FUS		11.8		S-V	[2003FUL/RUZ]
	FUS		10.6	257.8	AC	[1988LEB/SMI, 2006FUL/RUZ]
	FUS	(60–298)	11.05	257.9		[1996DOM/HEA, 1973MAS/NOV]
	SUB	(225–257)	47.4			[2003FUL/RUZ]
	SUB	(247–257)	45.2	252		[1987STE/MAL]
	V	(259–263)	35.6			[2003FUL/RUZ]
	V	(257–277)	34.9	267		[1988KAY/HEI]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		33.1 ± 0.8			[1958LON/SAC, 1982PIL/SKI]
	V		32.6			[1933KRA/TOO, 1958FOW/MOR]
$C_4H_{10}ClGa$	[30914-08-0]	Diethylgallium chloride				
	V	(273–333)	59.9	303		[1991BUC/POT]
C_6H_9Ga	[1188-13-2]	Trivinyl gallium				
	V	(298–373)	U72.6	335		[1962OLI/STE]
[Note: Decomposition noted above 333 K.]						
$C_6H_{15}Ga$	[1115-99-7]	Triethyl gallium				
	FUS	(60–300)	11.64	193.5		[1996DOM/HEA, 1972MAS/FAM]
	V	(299–387)	43.1 ± 1.6	343		[2001BAE, 2001BAE/CHE]
	V	(260–294)	48.4	277		[1988KAY/HEI]
	V		38.5 ± 0.4			[1973KOL/RAB, 1982PIL/SKI]
	V		41.4			[1962HAR/LUT]
$C_9H_{21}Ga$	[54514-59-9]	Triisopropyl gallium				
	V	(298–373)	49.0	335		[1962OLI/STE]
	V		46.6			[1962HAR/LUT]
$C_9H_{21}Ga$	[29868-77-7]	Tripropyl gallium				
	V	(316–385)	46.6 ± 0.5	350		[2001BAE]
	V	(298–373)	49.2	335		[1962OLI/STE]
	V		49.7			[1962HAR/LUT]
$C_{11}H_{24}GaNS_2$	[253595-30-1]	Di-*tert*-butyl gallium dimethyldithiocarbamate				
	V	(374–427)	43 ± 1		TGA	[1999KEY/BOT]
$C_{11}H_{24}GaNS_2$	[253595-34-5]	Dibutyl gallium dimethyldithiocarbamate				
	V	(385–424)	53 ± 1		TGA	[1999KEY/BOT]
$C_{11}H_{24}GaNS_2$	[253595-35-6]	Di-*sec*-butyl gallium dimethyldithiocarbamate				
	V	(366–425)	44 ± 1		TGA	[1999KEY/BOT]
$C_{12}H_{27}Ga$	[15677-44-8]	Tributyl gallium				
	V	(330–378)	51.6 ± 1.3	354		[2001BAE]
	V	(426–507)	56.2	441	A	[1987STE/MAL]
	V		58.7			[1962HAR/LUT]
$C_{12}H_{27}Ga$	[17150-84-4]	Triisobutyl gallium				
	V	(260–290)	32.9	275		[1988KAY/HEI]
	V		52.2			[1962HAR/LUT]
$C_{13}H_{28}GaNS_2$	[253595-32-3]	Di-*tert*-butyl gallium diethyldithiocarbamate				
	V	(372–419)	48 ± 6		TGA	[1999KEY/BOT]
$C_{15}H_3F_{18}GaO_6$	[19648-92-1]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)gallium(III)				
	SUB	(333–363)	53.0		TGA	[2000FAH/BAR]
$C_{15}H_{12}F_9GaO_6$	[15453-83-5]	tris(1,1,1-trifluoro-2,4-pentanedionato)gallium(III)				
	SUB	(373–403)	75.0		TGA	[2000FAH/BAR]
	SUB	(378–433)	118.8 ± 1.7		GS	[1985MAT/KUW]
	SUB	(386–401)	89.4 ± 6.7			[1978IGU/CHU2]
	V	(401–459)	75.6 ± 0.5	430		[1978IGU/CHU2]
$C_{15}H_{21}GaO_6$	[14405-43-7]	tris(pentane-2,4-dionato)gallium(III)				
	SUB	(413–433)	90.0		TGA	[2000FAH/BAR]
$C_{15}H_{32}GaNS_2$	[253595-33-4]	Di-*tert*-butyl gallium dipropyldithiocarbamate				
	V	(365–424)	46 ± 1		TGA	[1999KEY/BOT]
$C_{16}H_{36}Ga_4S_4$	[135283-83-9]	$[((CH_3)_3C)Ga(^{\mu}3\text{-}S)]_4$				
	SUB	(367–380)	110	373	TGA	[1997GIL/BOT]
$C_{16}H_{36}Ga_4Se_4$	[135283-84-0]	$[((CH_3)_3C)Ga(^{\mu}3\text{-}Se)]_4$				
	SUB	(375–388)	119	381	TGA	[1997GIL/BOT]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{16}H_{36}Ga_4Te_4$	[135258-40-1]	$[((CH_3)_3C)Ga(^{\mu}3\text{-Te})]_4$				
	SUB	(391–422)	131	406	TGA	[1997GIL/BOT]
$C_{20}H_{44}Ga_4S_4$	[166331-96-0]	$[(C_2H_5(CH_3)_2C)Ga(^{\mu}3\text{-S})]_4$				
	SUB	(369–382)	124	375	TGA	[1997GIL/BOT]
$C_{20}H_{44}Ga_4Se_4$	[176100-40-6]	$[(C_2H_5(CH_3)_2C)Ga(^{\mu}3\text{-Se})]_4$				
	SUB	(395–407)	137	375	TGA	[1997GIL/BOT]
$C_{20}H_{44}Ga_4Te_4$	[176100-41-7]	$[(C_2H_5(CH_3)_2C)Ga(^{\mu}3\text{-Te})]_4$				
	SUB	(416–432)	140	424	TGA	[1997GIL/BOT]
$C_{24}H_{52}Ga_4S_4$	[166331-97-1]	$[((C_2H_5)2(CH_3)C)Ga(^{\mu}3\text{-S})]_4$				
	SUB	(407–420)	137	413	TGA	[1997GIL/BOT]
$C_{24}H_{52}Ga_4Se_4$	[187612-49-3]	$[((C_2H_5)_2\ (CH_3)C)Ga(^{\mu}3\text{-Se})]_4$				
	SUB	(388–420)	147	404	TGA	[1997GIL/BOT]
$C_{24}H_{52}Ga_4Te_4$	[176100-42-8]	$[((C_2H_5)_2\ (CH_3)C)Ga(^{\mu}3\text{-Te})]_4$				
	SUB	(432–447)	151	439	TGA	[1997GIL/BOT]
$C_{28}H_{60}Ga_4S_4$	[187612-47-1]	$[((C_2H_5)_3C)Ga(^{\mu}3\text{-S})]_4$				
	SUB	(432–444)	149	438	TGA	[1997GIL/BOT]
$C_{28}H_{60}Ga_4Se_4$	[187612-51-7]	$[((C_2H_5)_3C)Ga(^{\mu}3\text{-Se})]_4$				
	SUB	(452–464)	156	458	TGA	[1997GIL/BOT]
$C_{28}H_{60}Ga_4Te_4$	[187612-52-8]	$[((C_2H_5)_3C)Ga(^{\mu}3\text{-Te})]_4$				
	SUB	(444–456)	156	450	TGA	[1997GIL/BOT]
$C_{33}H_{57}O_6Ga$	[34228-15-4]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)gallium(III)				
	SUB		118.8		ME	[2011ZHU/KRA]
	SUB	(413–443)	87.0		TGA	[2000FAH/BAR]
	SUB		102.1		ME	[1973BRU/CUR]
$GaBr_3$	[13450-88-9]	Gallium tribromide				
	SUB	(300–357)	92.5 ± 2.0	298	TE	[2009BRU/PIA]
$(GaBr_3)$-(NH_3)	[54955-92-9]	Gallium tribromide-ammonia complex				
	SUB		67.4 ± 1.3			[1975TRU/SUV]
$GaCl_2$	[128579-09-9]	Gallium dichloride				
	SUB	(372–441)	111 ± 2	406	TE	[2010BRU]
$GaCl_3$	[13450-90-3]	Gallium trichloride				
	FUS		11.12	349.6	DSC	[2007CHU/ZEL]
	SUB	(289–308)	89 ± 2	298	TE	[2010BRU/PIA]
	SUB	(313–349)	87.1 ± 1.2	298	T	[2007CHU/ZEL]
	V	(351–421)	72.7 ± 0.2	349	T	[2007CHU/ZEL]
$(GaCl_3)$-(NH_3)	[50599-24-1]	Gallium trichloride-ammonia complex				
	SUB		75.6 ± 1.3			[1975TRU/SUV]
GaF_3	[7783-51-9]	Gallium trifluoride				
	SUB	(808–958)	252 ± 4	298	TE	[2010BRU/PIA]
GaI_3	[13450-91-4]	Gallium triiodide				
	SUB	(345–401)	100.5 ± 2.0	298	TE	[2010BRU/PIA]
Gd						
$C_{10}H_{10}ClGd$	[11087-14-2]	bis(cyclopentadienyl)gadolinium chloride				
	SUB	(338–438)	138.5 ± 2.1		ME	[1971HAU]
$C_{15}H_{15}Gd$	[1272-21-5]	tris(cyclopentadienyl)gadolinium				
	SUB	(513–623)	106.7 ± 2.9			[1973BOR/KRA]
$C_{15}H_{21}GdO_6$	[14284-87-8]	tris(2,4-pentanedionato)gadolinium(III)				
	FUS		39.3	373.2	DSC	[1971PRZ/BOS]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{30}H_{30}F_{21}GdO_6$	[17631-67-3]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)gadolinium(III)				
	SUB	(362–385)	154.8 ± 0.8		ME	[1971SWA/KAR]
$C_{33}H_{57}GdO_6$	[14768-15-1]	tris(2,2,6,6-tetramethylpentane-2,4-dionato)gadolinium(III)				
	SUB		166.1 ± 3.5	298	DSC	[1999SAN/PET]
	SUB		78.8 ± 1.5			[1996TSY/DYA2, 2000GIE]
	SUB	(383–418)	181.2	400	ME	[1981AMA/SAT]
	SUB		163.6		ME	[1973BRU/CUR]
	SUB	(420–456)	161.3	438	BG	[1969SIC/DUB]
	V	(456–500)	90.2		BG	[1969SIC/DUB]
GdI_3	[13572-98-0]	Gadolinium triiodide				
	SUB	(917–1025)	306.4 ± 5.2	971	ME	[1975HIR/ROM]
	SUB	(917–1025)	321.3 ± 5.2	298	ME	[1975HIR/ROM]
Ge						
$CHCl_5Ge$	[21572-22-5]	Trichloro(dichloromethyl)germane				
	V	(303–423)	47.9	318		[1975SOK/KAR]
CH_2Cl_4Ge	[21572-18-9]	Trichloro(chloromethyl)germane				
	V	(303–423)	45.9	318		[1975SOK/KAR]
CH_3Cl_3Ge	[993-10-2]	Methyltrichlorogermane				
	V	(293–385)	37.4	308		[1971GON/KAR]
CH_4Cl_2Ge	[1111-82-6]	Methyldichlorogermane				
	V	(281–346)	34.5	313	SG	[1961GRI/ONY]
	V	(273–290)	33.1	281		[1961AMB/BOE]
CH_5BrGe	[30123-09-2]	Methylbromogermane				
	V	(273–333)	33.3	303	SG	[1961GRI/ONY]
CH_5ClGe	[29914-10-1]	Methyl chlorogermane				
	V	(241–263)	25.8	252		[1961AMB/BOE]
CH_6Ge	[1449-65-6]	Methylgermane				
	V	(159–230)	16.6	194	SG	[1961GRI/ONY]
	V	(164–197)	21.4	181		[1961AMB/BOE]
CH_6GeS	[16643-16-6]	(methylthio)germane				
	V	(223–291)	29.8	257		[1999DYK/SVO]
$CH_{12}Ge_3Si$	[20576-06-1]	Trigermylmethylsilane				
	V	(301–378)	39.1	339		[1968DUT/ONY]
$C_2H_5Cl_3Ge$	[993-42-0]	Trichloro(ethyl)germane				
	V	(293–415)	41.9	308		[1971GON/KAR]
C_2H_6Ge	[34292-00-7]	Vinylgermane				
	V	(196–237)	24.2	216		[1959BRI/STO]
C_2H_7ClGe	[21961-73-9]	Dimethylchlorogermane				
	V	(273–288)	29.4	280		[1961AMB/BOE]
C_2H_8Ge	[1449-64-5]	Dimethylgermane				
	V	(196–228)	26.5	212		[1961AMB/BOE]
$C_2H_{10}Ge_2$	[23830-51-5]	1,1–dimethyldigermane				
	V	(259–295)	31.8	277		[1969GEO/MAC]
$C_2H_{10}Ge_2$	[23830-52-6]	1,2-dimethyldigermane				
	V	(258–295)	29.3	277		[1969GEO/MAC]
$C_2H_{12}Ge_2Si$	[23830-52-6]	Digermyldimethylsilane				
	V	(297–381)	34.4	339		[1968DUT/ONY]
C_3H_9ClGe	[1529-47-1]	Trimethylchlorogermane				
	V	(293–363)	36.3	308		[1972DIT/SKO2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(273–341)	34.4	307	SG	[1961GRI/ONY]
C_3H_9FGe	[661-37-0]	Trimethylfluorogermane				
	SUB	(250–284)	40.0	267	SG	[1987STE/MAL, 1961GRI/ONY]
	V	(285–345)	32.4	315	SG	[1961GRI/ONY]
$C_3H_{12}GeSi$	[18365-18-9]	(trimethylsilyl)germane				
	V	(288–314)	30.3	301		[1968DUT/ONY]
$C_3H_{12}Ge_2$	[20478-15-3]	1,1,1-trimethyldigermane				
	V	(273–327)	36.1	300		[1968DUT/ONY]
$C_3H_{12}Ge_2$	[23830-53-7]	1,1,2-trimethyldigermane				
	V	(268–294)	33.5	281		[1969GEO/MAC]
$C_4H_9Cl_3Ge$	[4872-26-8]	Butyltrichlorogermanium				
	V	(313–453)	49.2	328		[1975SOK/KAR2]
	V	(337–377)	45.8	352		[1972GON/KAR]
$C_4H_{12}Ge$	[865-52-1]	Tetramethylgermane				
	FUS	(15–300)	7.45	184.4		[1970VAL/KIL]
	V	(301–320)	25.6	310		[1974MOG/HOC, 1983HOU3]
	V		28.1 ± 0.1	285	C	[1970VAL/KIL]
	V		27.6 ± 2.1			[1969SHA/FED, 1982PIL/SKI]
	V	(278–318)	28.6	298		[1968LON/PUL]
	V	(218–321)	30.8	250		[1968LON/PUL]
	V	(293–313)	29.7	303	MM	[1966ZAB]
$C_4H_{12}GeO$	[6163-67-3]	Trimethylmethoxy germane				
	V	(273–335)	32.4	304	SG	[1961GRI/ONY]
$C_4H_{12}GeO_4$	[992-91-6]	Tetramethoxygermane				
	V	(264–303)	48.7	298		[2008PAN/FUL]
	V		40.2 ± 0.4			[1970SHA/FED, 1977PED/RYL]
	V	(303–385)	44.0	344		[1958BRA/KAY]
$C_4H_{12}GeS_4$	[21736-70-9]	Tetra(methylthia)germane				
	FUS		14.2	284.1	DSC	[1998FUE/STR]
$C_5H_{11}Cl_3Ge$	[25425-26-7]	Pentyltrichlorogermanium				
	V	(323–473)	51.9	338		[1975SOK/KAR2]
	V	(305–475)	49.7	320		[1972GON/KAR]
$C_5H_{12}Ge$	[993-40-8]	Trimethyl(ethyl)germanium				
	V	(293–343)	34.7	368	MM	[1966ZAB]
$C_6H_5Cl_3Ge$	[1074-29-9]	Phenyltrichlorogermane				
	V	(343–473)	55.4	358		[1972SOK/KAR]
$C_6H_{13}Cl_3Ge$	[35460-93-6]	Hexyltrichlorogermanium				
	V	(315–491)	51.1	329		[1972GON/KAR]
$C_6H_{15}BrGe$	[1067-10-3]	Bromotriethylgermane				
	V	(303–463)	48.3	318		[1971GON/KAR]
$C_6H_{16}Ge$	[3634-65-9]	Dimethyl(diethyl)germanium				
	V	(293–373)	38.5	333	MM	[1966ZAB]
$C_6H_{16}Ge$	[1118-01-0]	(trimethyl)propylgermanium				
	V	(293–363)	36.5	328	MM	[1966ZAB]
$C_6H_{18}Ge_2O$	[2237-93-6]	Hexamethyldigermoxane				
	V	(291–345)	44.1	318	SG	[1961GRI/ONY]
$C_8H_{24}GeN_4$	[7344-40-3]	tetrakis(dimethylamino)germanium				
	V	(278–308)	49.6	298		[2010MOR/FUL]
$C_7H_7Cl_3Ge$	[6181-21-1]	Benzyltrichlorogermane				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(373–473)	58.8	388		[1972SOK/KAR]
$C_7H_{15}Cl_3Ge$	[1190-86-9]	Heptyltrichlorogermanium				
	V	(323–506)	52.3	338		[1972GON/KAR]
$C_7H_{18}Ge$	[994-27-4]	Methyl(trethyl)germanium				
	V	(293–403)	41.3	348	MM	[1966ZAB]
$C_7H_{18}Ge$	[1000-46-0]	(trimethyl)butylgermanium				
	V	(293–383)	39.2	338	MM	[1966ZAB]
$C_8H_{20}Ge$	[57596-76-6]	Pentyl(trimethyl)germane				
	V	(303–423)	44.3	318		[1975SOK/KAR2]
$C_8H_{20}Ge$	[597-63-7]	Tetraethylgermane				
	FUS	(8–300)	12.31	180.0	AC	[1996DOM/HEA, 1985RAB/SHE]
	FUS	(60–300)	12.61	180.3		[1996DOM/HEA, 1972MAS/RAB]
	FUS	(100–220)	12.41	180.5		[1954STA/WAR]
	V	(253–293)	43.4	273	GS	[1992GAZ/SCH]
	V		45.7 ± 0.4	298	C	[1977PEA/FUC]
	V	(337–436)	46.1	352		[1974MOG/HOC]
	V	(293–433)	44.6	363	MM	[1966ZAB]
	V		44.8 ± 1.3			[1964BIL/COT, 1982PIL/SKI]
	V	(313–373)	42.2		T	[1963RAB/TEL]
$C_8H_{20}Ge$	[995-86-8]	(dimethyl)dipropylgermanium				
	V	(293–403)	43.2	348	MM	[1966ZAB]
$C_8H_{20}GeO_4$	[14165-55-0]	Tetraethoxygermane				
	V	(259–303)	56.7	298		[2008PAN/FUL]
	V		53.9	389		[1988GRI/CHE, 2008PAN/FUL]
	V		53.6	406		[1977BAL/RUD, 2008PAN/FUL]
	V		43.1 ± 0.4			[1970SHA/FED, 1977PED/RYL]
	V	(328–414)	47.9	371		[1958BRA/KAY]
	V		46.6	403		[1953JOH/FRI, 2008PAN/FUL]
$C_8H_{24}Ge_4O_4$	[7749-82-8]	Octamethyltetragermoxane				
	SUB		68.2 ± 4.2	298		[1982PIL/SKI, 1972VOL/SMO]
	V	(333–473)	51.4	403		[1972VOL/SMO]
$C_{10}H_{24}Ge$	[995-22-2]	Methyl(tripropyl)germanium				
	V	(313–453)	48.8	383	MM	[1966ZAB]
$C_{10}H_{24}GeO_2$	[26452-74-4]	*tert*-butylperoxytriethylgermane				
	V		43.5 ± 4.2			[1971RAB/KIP, 1982PIL/SKI]
$C_{10}H_{25}GeN$	[756-66-1]	Triethyl(diethylamino)germane				
	V	(303–463)	50.9	318		[1970GON/KAR]
	V		46.0 ± 4.8			[1971KOL/RAB, 1982PIL/SKI]
$C_{12}H_{12}Ge$	[1675-58-7]	Diphenylgermane				
	FUS		11.91	240.2		[1980LEB/KIP]
$C_{12}H_{28}Ge$	[994-65-0]	Tetrapropylgermane				
	V	(353–493)	54.7	368	A	[1987STE/MAL]
	V	(390–498)	54.3	415		[1974MOG/HOC, 1983HOU3]
	V	(353–493)	54.2	423	MM	[1966ZAB]
	V		61.5 ± 4.2			[1964POP/SKI, 1982PIL/SKI]
$C_{12}H_{28}GeO_4$	[128426-02-8]	Tetrapropoxygermane				
	V	(343–453)	63.3	358	A	[1987STE/MAL]
	V	(369–465)	55.0	417		[1958BRA/KAY]
	V		55.6			[1953JOH/FRI]
$C_{12}H_{28}GeO_4$		Tetraisopropoxygermane				
	V	(313–453)	60.4	328	A	[1987STE/MAL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(355–444)	54.9	400		[1958BRA/KAY]
$C_{12}H_{30}ClGeN_3$	[28402-28-0]	tris(diethylamino)chlorogermane				
	V	(363–493)	64.4	378		[1970GON/KAR]
$C_{12}H_{30}Ge_2Hg$	[4149-28-4]	bis(triethylgermyl)mercury				
	V	(383–403)	64.8	393		[1972BRA/KAR]
	V		62.8 ± 4.2			[1972KOL/RAB, 1982PIL/SKI]
$C_{12}H_{30}Ge_2$	[993-62-4]	Hexaethyldigermane				
	V		62.8			[1963RAB/TEL, 1982PIL/SKI]
$C_{12}H_{30}Ge_2O$	[2538-70-7]	Hexaethyldigermoxane				
	V		58.6 ± 4.2			[1971RAB/KIP, 1982PIL/SKI]
$C_{12}H_{33}GeNSi_2$	[1357556-77-4]	1,1,1-triethyl-*N*,*N*-bis(trimethylsilyl)germanamine				
	V	(371–471)	50.5 ± 0.5	421	Static	[2013SYS/NIK]
$C_{16}H_{12}Ge$	[1675-59-8]	(diethynyl)diphenylgermane				
	FUS	(8–326)	20.1	320		[1975LEB/MIL]
	SUB		133.9		B,E	[1975LEB/MIL]
	V	(305–337)	110.8	320	A	[1987STE/MAL]
$C_{16}H_{18}Ge$	[4514-06-1]	1,1-diphenylgermanocy clopentane				
	FUS		14.45		DSC	[1988CAR/DYS]
	SUB		104.6 ± 2.8	298		[1988CAR/DYS]
	V	(294–322)	87.6 ± 2.8		ME	[1988CAR/DYS]
$C_{16}H_{36}Ge$	[1067-42-1]	Tetrabutylgermane				
	FUS		19.1	198.6		[1971SHA/YAK]
	V	(436–556)	65.1	460		[1974MOG/HOC, 1983HOU3]
	V	(393–513)	64.6	463	MM	[1966ZAB]
$C_{16}H_{36}GeO_4$	[25063-27-8]	Tetrabutoxygermane				
	V	(394–519)	62.4	456		[1958BRA/KAY]
	V		59.6			[1953JOH/FRI]
$C_{16}H_{36}GeO_4$	[1085941-13-4]	Tetraisobutoxygermane				
	V	(369–482)	59.9	426		[1958BRA/KAY]
$C_{16}H_{36}GeO_4$		Tetra-*sec*-butoxygermane				
	V	(365–475)	59.9	420		[1958BRA/KAY]
$C_{16}H_{36}GeO_4$	[1085941-54-3]	Tetra-*tert*-butoxygermane				
	V	(364–460)	53.8	412		[1958BRA/KAY]
$C_{18}HF_{15}Ge$	[42371-50-6]	tris(pentafluorophenyl)germane				
	FUS	(7–500)	34.9	405	AC	[1997SMI/LEB2]
$C_{18}H_{42}Ge_2Hg$	[24004-54-4]	bis(triisopropylgermyl)mercury				
	V	(373–483)	68.7	388		[1972BRA/KAR]
	V		54.4 ± 4.2			[1972KOL/RAB, 1982PIL/SKI]
$C_{20}H_{18}Ge$	[4049-97-2]	Triphenyl vinylgermanium				
	SUB		98.7 ± 1.6	298	ME,TE	[1988CAR/JAM2]
$C_{20}H_{44}Ge$	[3634-47-7]	Tetrapentylgermane				
	V	(471–599)	72.2	500		[1974MOG/HOC, 1983HOU3]
$C_{24}H_{20}Ge$	[1048-05-1]	Tetraphenylgermane				
	SUB	(402–480)	148.6	441	A	[1987STE/MAL]
	SUB	(402–480)	156.9 ± 4.2	298		[1982PIL/SKI, 1969ADA/CAR, 1974KAN]
$C_{24}H_{20}GeO_4$	[1085941-60-1]	Tetraphenoxygermane				
	V		37.4 ± 0.4			[1970SHA/FED, 1977PED/RYL]
$C_{26}H_{20}Ge$	[4131-49-1]	Triphenyl phenylethynylgermane				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		107.5 ± 1.5	298	ME,TE	[1988CAR/JAM2]
$C_{28}H_{28}Ge$	[1048-05-1]	Tetrabenzylgermane				
	SUB		168.6 ± 8.4	298		[1982PIL/SKI, 1970CAR/CAR]
$C_{32}H_{16}Cl_2GeN_8$	[19566-97-3]	Dichlorophthalocyaninatogermane				
	SUB		147.4			[1972MAR/LOP]
$C_{36}H_3Ge_2O$	[2181-40-0]	bis(triphenyl germanium) oxide				
	SUB		98.0 ± 1.5	298	ME,TE	[1988CAR/JAM2]
$C_{36}H_{30}Ge_2$	[2816-39-9]	Hexaphenyldigermane				
	SUB	(483–558)	209.2 ± 4.2	298		[1982PIL/SKI, 1970CAR/CAR, 1974KAN]
Br_2Ge	[24415-00-7]	Germanium dibromide				
	FUS		11.6	409.2	DSC	[2006ZEL/CHU2]
Br_4Ge	[13450-92-5]	Germanium tetrabromide				
	FUS	(5–315)	12.85	299.3	AC	[1999BER/ZEL]
	SUB	(273–299)	58.6 ± 1.2	298		[2004ZEL/CHU]
	V	(299–373)	46.6 ± 0.3	298		[2004ZEL/CHU]
ClF_3Ge	[14188-40-0]	Chlorotrifluorogermane				
	V	(209–253)	39.5	231		[1936BOO/MOR]
Cl_2F_2Ge	[24422-21-7]	Dichlorodifluorogermane				
	V	(226–271)	27.6	248		[1936BOO/MOR]
Cl_3FGe	[24422-20-6]	Trichlorofluorogermane				
	V		34.9	280		[1936BOO/MOR]
Cl_4Ge	[10038-98-9]	Germanium tetrachloride				
	FUS		8.52	221.7		[1986DEV/GUS]
	SUB	(187–221)	44.6 ± 0.2		MG	[1964BAL/DON]
Cl_6Ge_2	[15432-44-7]	Hexachlorodigermane				
	V	(298–333)	53.6	315		[1962KOP]
[Note: The author of [1962KOP] refers to the value as an enthalpy of vaporization.]						
F_2Ge	[13940-63-1]	Germanium difluoride				
	FUS		9.25	(corrected to 298 K)		[1971ADA/MAR]
	SUB		82.8 ± 4.2	298	MS	[1971ADA/MAR]
	SUB		93.3 ± 10.5	298		[1971ADA/MAR]
F_4Ge	[7783-58-6]	Germanium tetrafluoride				
	V	(260–300)	22.9	280		[2015TRO/BUL]
Ge_4H_{10}	[14691-47-5]	Tetragermane				
	V		32.8			[1959AMB]
Ge_5H_{12}	[15587-39-0]	Pentagermane				
	V		34.6			[1959AMB]
GeH_6Si	[13768-63-3]	Germylsilane				
	V	(190–250)	25.0	220		[1963SPA/MAC]
GeI_2	[13573-08-5]	Germanium diiodide				
	FUS		33.3	701.2		[2003ZEL/TIT]
GeI_4	[13573-08-5]	Germanium tetraiodide				
	FUS		19.1	419		[1998ZEL/MIN]
	SUB		87.1 ± 3	298		[1999TIT/ZEL]
	SUB		86.7 ± 3	298		[1999TIT/ZEL]
	SUB	(323–420)	76.5 ± 5.7	298	TE	[1987FER/STR]
	V	(419–613)	64.2 ± 0.2	419		[1999TIT/ZEL2]

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TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
Cl_3HaO	[143928-41-0]	Hahnium(V) oxychloride				
	SUB	(298–607)	152 ± 18	298		[1996TUR/EIC]
Cl_5Ha	[146837-09-4]	Hahnium(V) pentachloride				
	SUB		<120	298		[1996TUR/EIC]
Hf						
$C_{10}H_{10}Cl_2Hf$	[12116-66-4]	bis(cyclopentadienyl)hafnium dichloride				
	SUB		110.2 ± 2.9	298	ME	[2001DIO/PIE]
	SUB	(394–447)	100.3	420.5		[1987STE/MAL]
	SUB		106.7 ± 2.1	298		[1982PIL/SKI, 1976KIR/TEL]
	SUB		100.4 ± 1.3			[1977BAL/BAR]
	SUB		107.3 ± 2.4	298		[1968KIS/DIL, 2001DIO/PIE]
$C_{12}H_{16}Hf$	[37260-88-1]	bis(cyclopentadienyl)dimethyl hafnium				
	SUB	(295–316)	81.1 ± 1.9	303	ME	[2008MOR/ZHE]
$C_{16}H_{36}HfO_4$	[2172-02-3]	tetrakis(*tert*-butoxy)hafnium				
	FUS		32.3	271.8	DSC	[2011FUL/RUZ2]
	V	(280–308)	64.8 ± 0.4	298		[2011FUL/RUZ2]
$C_{18}H_{30}HfN_2$	[159338-62-2]	bis(cyclopentadienyl)hafnium bis(diethylamide)				
	SUB	(328–365)	130.5 ± 1.0	346	ME	[2008MOR/ZHE]
$C_{20}H_{16}F_{12}HfO_8$	[17475-68-2]	tetrakis(1,1,1-trifluoro-2,4-pentanedionato)hafnium(IV)				
	FUS		40.1	398	DSC	[2008ZHE/MOR]
	SUB	(358–393)	133.0 ± 1.8	376	GS	[2008MOR/ZHE]
	SUB	(358–398)	126.5 ± 1.8			[2008ZHE/MOR]
	SUB	(383–438)	129.7 ± 3.8		GS	[1985MAT/KUW]
	SUB	(383–438)	124.7 ± 3.8		GS	[1985MAT/KUW]
	V	(403–423)	84.7 ± 3.1	413	GS	[2008MOR/ZHE]
	V	(403–423)	83.2 ± 2.0	413		[2008ZHE/MOR]
$C_{20}H_{28}HfO_8$	[17475-67-1]	tetrakis(pentane-2,4-dionato)hafnium(IV)				
	SUB	(408–433)	138.7 ± 7.4	420	GS	[2008MOR/ZHE]
	SUB	(408–443)	130.4 ± 6.1	425		[2008ZHE/MOR]
	SUB	150.6 ± 4.2				[1991TEL/LAR]
$C_{32}H_{40}F_{12}HfO_8$	[916441-69-5]	tetrakis(1,1,1-trifluoro-5,5-dimethyl-2,4-hexanedionato)hafnium*N*,*N*′				
	SUB	(383–423)	135.3 ± 1.7	403	GS	[2008MOR/ZHE]
Note: The enthalpy of sublimation that was reported in the paper, 97.5 ± 1.7 kJ/mol, was not consistent with the reported Antoine constants. We have recalculated the the enthalpy of sublimation assuming that the reported Antoine constants are correct.						
	SUB	(386–423)	121.5 ± 0.8	404		[2008ZHE/MOR]
	V	(426–493)	92.1 ± 1.3	460	GS	[2008MOR/ZHE]
	V	(424–472)	91.2 ± 0.3	448		[2008ZHE/MOR]
$C_{44}H_{76}HfO_8$	[63370-90-1]	tetrakis(2,2,6,6-tetramethyl-3,5-heptanedionaot)hafnium(IV)				
	TRS	15.8	446			
[Note: The enthalpy includes a solid/solid transition that occurs at 433 K.]						
	FUS		5.4	630	DSC	[2008ZHE/MOR]
	SUB	(453–553)	103.5 ± 0.6	503	GS	[2008MOR/ZHE]
	SUB	(368–428)	136.6 ± 4.2	398	ME	[2008MOR/ZHE]
$HfCl_4$	[13499-05-3]	Hafnium tetrachloride				
	SUB	(398–500)	97.9 ± 1.2	499	T	[1994TAN/BOS]
	SUB	(353–433)	107.9 ± 0.8			[1973IZM/KHO]
Hg						
CH_3BrHg	[506-83-2]	Methylmercuric bromide				
	SUB	(258–297)	67.6 ± 1.6	277.5	V	[1987STE/MAL, 1951CHA/SKI]
CH_3ClHg	[115-09-3]	Methylmercuric chloride				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		12.1	446.6	DSC	[1972PLA]
	SUB	(278–307)	64.9 ± 1.6	298	V	[1987STE/MAL, 1982PIL/SKI, 1950HAR/PRI, 1951CHA/SKI]
CH_3HgI	[143-36-2]	Methylmercuric iodide				
	SUB	(263–290)	65.3 ± 1.6	276	V	[1951CHA/SKI]
C_2H_5BrHg	[107-26-6]	Ethylmercuric bromide				
	SUB	(285–303)	76.5 ± 2.9	294	V	[1987STE/MAL, 1982PIL/SKI, 1951HAR/PRI, 1951CHA/SKI]
C_2H_5ClHg	[107-27-7]	Ethylmercuric chloride				
	SUB	(283–303)	76.2 ± 2.9	293	V	[1987STE/MAL, 1982PIL/SKI, 1951HAR/PRI, 1951CHA/SKI]
C_2H_5HgI	[2440-42-8]	Ethylmercuric iodide				
	SUB	(286–303)	79.7 ± 2.9	294.5	V	[1987STE/MAL, 1982PIL/SKI, 1951HAR/PRI, 1951CHA/SKI]
C_2H_6Hg	[593-74-8]	Dimethyl mercury				
	V	(275–367)	36.7 ± 0.1	321		[2001BAE]
	V		34.6 ± 0.8			[1950HAR/PRI, 1982PIL/SKI]
$C_2F_6HgS_2$	[1085746-33-3]	bis(trifluoromethylthio)mercury				
	V	(353–423)	49.9	368		[1999DYK/SVO]
$C_4H_{10}Hg$	[627-44-1]	Diethyl mercury				
	FUS	(5–300)	10.50	181.45	AC	[1978BUR/KAM]
	V		44.8 ± 1.7			[1951HAR/PRI, 1982PIL/SKI]
	V		44.9			[1935JON/EVA]
$C_4H_{16}Cl_2HgN_8S_4$	[28813-22-1]	*trans*-dichloro-tetrakis(thiourea)mercury(II)				
	SUB		11 ± 20			[1970ASH]
$C_6H_{14}Hg$	[628-85-3]	Dipropyl mercury				
	V		55.2 ± 1.3			[1952MOR/PRI, 1982PIL/SKI]
$C_6H_{14}Hg$	[1071-39-2]	Diisopropyl mercury				
	V		53.6 ± 1.7			[1952MOR/PRI, 1982PIL/SKI]
$C_{10}H_{14}Cl_2HgN_6O_2$		[Mercury(1-methylcytosine)$_2$Cl$_2$]				
	SUB	(428–443)	150.8 ± 19	435	ME	[1984BUR/MOR]
	SUB	(428–443)	159 ± 19	298	ME	[1984BUR/MOR]
$C_{10}H_{20}HgN_2S_4$	[14239-51-1]	bis(diethyldithiocarbamate) mercury complex				
	SUB	(378–403)	47.6	390.5	A	[1987STE/MAL]
$C_{12}F_{10}Hg$	[973-17-1]	bis(pentafluorophenyl)mercury				
	FUS		27.8	402.6	DSC	[2008ZEL/CHU]
$C_{12}H_{12}Hg$	[587-85-9]	Diphenylmercury				
	SUB	(314–303)	1128 ± 0.8	298	ME	[1958CAR/STR]
$C_{12}H_{30}Ge_2Hg$	[4149-28-4]	bis(triethylgermyl)mercury				
	V	(383–403)	64.8	393		[1972BRA/KAR]
$C_{12}H_{30}HgSi_2$	[4149-29-5]	bis(triethylsilyl)mercury				
	V	(383–433)	64.0	398		[1972BRA/KAR]
$C_{14}H_{14}Hg$	[780-24-5]	bis(benzyl)mercury				
	SUB	(350–390)	88.7 ± 2.1		ME,TE	[1984CAR/SPE]
$C_{14}H_{28}HgN_2S_4$	[21439-56-5]	bis(dipropyldithiocarbamate)mercury(II)				
	SUB		200 ± 2	298	DSC,E	[1992DEC/AIR]
$C_{16}H_{10}Hg$	[6077-10-7]	bis(phenylethynyl)mercury				
	SUB	(350–390)	99.2 ± 1.4		ME,TE	[1984CAR/SPE]
$C_{18}H_{36}HgN_2S_4$	[21439-58-7]	bis(dibutyldithiocarbamate)mercury(II)				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		193 ± 3	298	DSC,E	[1991DES/DES]
$C_{18}H_{36}HgN_2S_4$	[79001-48-2]	bis(diisobutyldithiocarbamate)mercury(II)				
	SUB		247 ± 1	298	DSC,E	[1994SOU/PIN]
$C_{18}H_{42}Ge_2Hg$	[24004-54-4]	bis(triisopropylgermyl)mercury				
	V	(373–483)	68.7	388		[1972BRA/KAR]
Hg	[7439-97-6]	Mercury				
	FUS	(5–300)	2.26	234.3	AC	[1979AMI/LEB]
	FUS	(19–318)	2.30	234.3		[1953BUS/GIA]
$HgBr_2$	[7789-47-1]	Mercuric bromide				
	FUS		17.90	511.3	C	[1959JAN/GOO]
HgF_2	[7783-39-3]	Merucric fluoride				
	SUB	(496–629)	136 ± 4	298		[2008BRU/PIA]
HgI_2	[7774-29-0]	Mercuric iodide				
	FUS		20.3	537	S-V	[2002SU/ZHU]
	SUB		84.4		UV	[2002SU/ZHU]
	V	(537–610)	64.0	574	UV	[2002SU/ZHU]
Ho						
$C_{15}H_{15}Ho$	[1272-22-6]	tris(cyclopentadienyl)holmium(III)				
	SUB		1021 ± 2.1			[1973DEV/BOR]
	SUB	(338–348)	119.7 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{15}H_{21}HoO_6$	[14589-33-4]	tris(2,4-pentanedionato)holmium(III)				
	FUS		48.1	377.2	DSC	[1971PRZ/BOS]
$C_{33}H_{57}HoO_6$	[15522-73-3]	tris(2,2,6,6-tetramethylheptane-3,5-dionato)holmium(III)				
	SUB		131.0 ± 2.9		DSC	[1993AIR/SAN]
	SUB	(363–418)	152.7	390	ME	[1981AMA/SAT]
	SUB	(420–458)	131.4	439	BG	[1969SIC/DUB]
	V	(458–500)	84.6		BG	[1969SIC/DUB]
HoI_3	[13813-41-7]	Holmium triiodide				
	SUB	(924–1029)	298.3 ± 5.8	976	ME	[1975HIR/ROM]
	SUB	(924–1029)	315.5 ± 5.8	298	ME	[1975HIR/ROM]
I						
HI	[10034-85-2]	Hydrogen iodide				
	TRS		0.26	70.2		
	TRS		0.95	125.6		
	FUS		2.86	222.5		[1978INA/CHI]
	FUS		2.87			[1929GIA/WIE, 1978INA/CHI]
	FUS		3.04			[1924EUC/KAR, 1978INA/CHI]
	V		19.8	238	C	[1929GIA/WIE]
	V	(217–238)	19.6	227		[1925MIR/MOL]
ClI	[7790-99-0]	Iodine chloride				
	FUS		11.6	300.5	C	[1965CAL/GIA]
In						
C_3H_9In	[3385-78-2]	Trimethyl indium				
	FUS		14.3	358.7		[1991URY/RON]
	SUB	(274–313)	62.7	294		[2004FUL/RUZ]
	SUB	(260–290)	54.2	275		[1988KAY/HEI]
	SUB		48.5 ± 2.5	298		[1982PIL/SKI, 1968CLA/PRI]
	SUB	(328–362)	57.7	344	A	[1987STE/MAL, 1941LAU/GIL]
$C_6H_{15}In$	[923-34-2]	Triethyl indium				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS	(60–298)	13.01	237.6		[1996DOM/HEA, 1973MAS/NOV]
	V	(326–376)	45.0 ± 0.7	351		[2001BAE, 2001BAE/CHE]
	V	(265–290)	53.9	277		[1988KAY/HEI]
	V		53.4			[1962HAR/LUT]
$C_9H_{21}In$	[3015-98-3]	Tripropyl indium				
	V	(400–483)	52.0	441		[1999DYK/SVO]
	V		58.4			[1962HAR/LUT]
$C_9H_{21}In$	[17144-80-8]	Triisopropyl indium				
	V	(318–366)	52.3 ± 0.7	342		[2001BAE]
	V	(394–478)	51.0	436		[1999DYK/SVO]
$C_{12}H_{27}In$	[15676-66-1]	Tributyl indium				
	V	(444–539)	58.5	459	A	[1987STE/MAL]
	V		59.8			[1962HAR/LUT]
$C_{12}H_{27}In$	[6731-23-3]	Triisobutyl indium				
	V		57.6			[1962HAR/LUT]
$C_{15}H_{12}F_9InO_6$	[15453-87-9]	tris(1,1,1-trifluoro-2,4-pentanedionato)indium(III)				
	SUB	(378–428)	112.1 ± 1.3		GS	[1985MAT/KUW]
	V	(398–478)	77.4 ± 0.6	438		[1978IGU/CHU2]
$C_{15}H_{30}InN_3S_6$	[15741-07-8]	tris(diethyldithiocarbamate)indium(III)				
	SUB		176.7 ± 3.3	298	DSC,E	[2000SOU/OLI]
$C_{20}H_{48}In_2P_4$	[115381-28-7]	bis[μ-[bis(1,1-dimethylethyl)phosphino)]]tetramethyldiindium(III)				
	SUB		130.0		ME	[1988BRA/FAK]
$C_{21}H_{42}InN_3S_6$	[87052-01-5]	tris(dipropyldithiocarbamate)indium(III)				
	SUB		372.8 ± 3.4	298	DSC,E	[2000SOU/OLI]
$C_{21}H_{42}InN_3S_6$	[85883-33-6]	tris(diisopropyldithiocarbamate)indium(III)				
	SUB		279.5 ± 3.5	298	DSC,E	[2000SOU/OLI]
$C_{27}H_{54}InN_3S_6$	[85883-33-6]	tris(dibutyldithiocarbamate)indium(III)				
	SUB		358.3 ± 3.2	298	DSC,E	[2000SOU/OLI]
$C_{27}H_{54}InN_3S_6$	[85129-27-7]	tris(diisobutyldithiocarbamate)indium(III)				
	SUB		182.0 ± 3.3	298	DSC,E	[2000SOU/OLI]
$C_{33}H_{57}InO_6$	[34269-03-9]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)indium(III)				
	SUB		135.1		ME	[2011ZHU/KRA]
	SUB		129.3		ME	[1973BRU/CUR]
$InBr_3$	[13465-09-3]	Indium(III) bromide				
	SUB		147 ± 4	298	TE	[1997BRU/PAL]
$InCl_3$	[10025-82-8]	Indium(III) chloride				
	SUB	(495–648)	152 ± 4	570	TE	[1998BRU/PIA]
	SUB		158 ± 4	298		[1998BRU/PIA]
	SUB		150.4	710		[1994OPP/KRA]
	SUB		161.1	298		[1994OPP/KRA, 1998BRU/PIA]
	SUB	(453–572)	151.1 ± 1.2	489	MS	[1988DEF/CHA]
	SUB		155.6 ± 1.2	298		[1988DEF/CHA, 1998BRU/PIA]
	SUB	(478–563)	161.1 ± 1.6	524		[1988DEF/CHA]
	SUB		168.5 ± 1.6	298		[1988DEF/CHA, 1998BRU/PIA]
	SUB	623–773)	156.3	698		[1974KUN/HOS]
	SUB		166.6	298		[1974KUN/HOS, 1998BRU/PIA]
InI_3	[13510-35-5]	Indium(III) iodide				
	SUB	(399–479)	136 ± 5.0	298	TE,ME	[1997BRU/GIU]
Ir						
$C_7H_7IrO_4$	[14023-80-4]	Dicarbonyl-2,4-pentanedionato iridium complex				
	SUB	(306–333)	94.1 ± 2.7		ME	[2009MOR/SEM]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(286–325)	92.0 ± 1.3	306	ME	[1978JES/ERN, 1987STE/MAL]
$C_7H_{13}Cl_2IrO_2$		bis(chloroethylene)-2,4-pentanedionato iridium complex				
	SUB	(281–298)	89.5 ± 4.2	290	ME	[1978JES/ERN, 1987STE/MAL]
$C_9H_{15}IrO_2$	[52654-27-0]	bis(ethylene)-2,4-pentanedionato iridium complex				
	SUB	(283–311)	82.8 ± 4.2	297	ME	[1978JES/ERN, 1987STE/MAL]
$C_{11}H_{19}IrO_2$	[66467-05-8]	bis(propylene)-2,4-pentanedionato iridium complex				
	SUB	(269–304)	90 ± 1.3	287	ME	[1978JES/ERN]
$C_{12}O_{12}Ir_4$	[11065-24-0]	Tetrairidiumdodecacarbonyl				
	SUB		104.6 ± 20	298		[1982PIL/SKI, 1974CON/SKI]
$C_{12}H_{15}IrO_2$	[32660-96-1]	(pentamethylcyclopentadienyl)(dicarbonyl)iridium(I)				
	SUB	(297–332)	105.0 ± 3.4		ME	[2009MOR/SEM]
$C_{13}H_{19}IrO_2$	[12154-84-6]	(acetylacetonato)(1,5-cyclooctadiene)iridium(I)				
	SUB	(335–370)	111.7 ± 1.7		ME	[2009MOR/SEM]
$C_{13}H_{19}IrO_6$	[66467-07-0]	bis(vinyl acetate)-2,4-pentanedionato iridium complex				
	SUB	(325–344)	120.5 ± 2.9	333	ME	[1978JES/ERN]
$C_{13}H_{19}IrO_6$	[66467-08-1]	bis(methyl acrylate)-2,4-pentanedionato iridium complex				
	SUB	(311–335)	117.2 ± 5	323	ME	[1978JES/ERN]
$C_{14}H_{19}Ir$	[132644-88-3]	(methylcyclopentadienyl)(1,5-cyclooctadiene)iridium(I)				
	SUB	(304–310)	124.6 ± 5.0		ME	[2009MOR/SEM]
	V	(310–330)	88.1 ± 1.3		ME	[2009MOR/SEM]
$C_{15}H_{21}IrO_6$	[15635-87-7]	tris(2,4-pentanedionato)iridium(III)				
	SUB	(423–473)	129.3 ± 1.0			[2010SYS/CHE]
	SUB		128			[2001MOR/ZHA]
	SUB	(423–473)	129.3 ± 0.8		GS	[2000MOR/SEM]
	SUB	(383–433)	130.5 ± 3.4		ME	[2000MOR/SEM]
	SUB	(387–513)	1016 ± 1.8		MCV	[2000MOR/SEM]
	SUB	(468–518)	86.6 ± 1.7		SMZG	[2000MOR/SEM]
	SUB		NA			[1994GER/GER]
La						
$C_{15}H_{15}La$	[1272-23-7]	tris(cyclopentadienyl)lanthanum				
	SUB		114.6 ± 4.0	298		[1982PIL/SKI, 1974DEV/RAB]
	SUB	(548–663)	102.1 ± 2.9			[1973BOR/KRA]
$C_{30}H_{30}F_{21}LaO_6$	[19106-89-9]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)lanthanum(III)				
	SUB	(387–403)	145.2 ± 2.9		ME	[1971SWA/KAR]
$C_{33}H_{57}LaO_6$	[14319-13-2]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)lanthanum(III)				
	SUB		156.0 ± 4.6		DSC	[1997SAN/ROC, 2000GIE]
	SUB		116.1 ± 8.4			[1996TSY/DYA]
	SUB		107.9 ± 4.6			[1996TSY/DYA2, 2000GIE]
	SUB	(388–423)	179.5	405	ME	[1981AMA/SAT]
	SUB		164.4		ME	[1973BRU/CUR]
	SUB	(450–520)	143.6	485	BG	[1969SIC/DUB]
$LaBr_3$	[13536-79-3]	Lanthanum trichloride				
	SUB	(955–1045)	295 ± 3	1000	TE	[2000BRU/VIL]
	SUB	(955–1045)	308 ± 5	298	TE	[2000BRU/VIL]
$LaCl_3$	[10099-58-8]	Lanthanum trichloride				
	SUB	(1006–1122)	326 ± 2	1064	TE	[2000BRU/VIL]
	SUB	(1137–1188)	268 ± 5	1162	TE	[2000BRU/VIL]
	SUB	(1006–1188)	334 ± 5	298	TE	[2000BRU/VIL]
LaI_3	[13813-22-4]	Lanthanum triiodide				
	SUB	(827–978)	289 ± 6	905	ME,MS	[2015DUN/KUD]
	SUB	(827–978)	304 ± 6	298	ME,MS	[2015DUN/KUD]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(932–1038)	270 ± 4	985	TE	[2000BRU/VIL, 2015DUN/KUD]
	SUB	(932–1038)	288 ± 4	298	TE	[2000BRU/VIL, 2015DUN/KUD]
	SUB	(1055–1123)	216 ± 6	1098	TE	[2000BRU/VIL, 2015DUN/KUD]
	SUB	(1055–1123)	287 ± 6	298	TE	[2000BRU/VIL, 2015DUN/KUD]
Li						
C_2H_5Li	[811-49-4]	Ethyl lithium				
	SUB	(298–333)	116.6	315.5	A	[1987STE/MAL, 1962CHA]
C_4H_9Li	[109-72-8]	Butyl lithium				
	SUB	(333–368)	109.7	350.5	A	[1987STE/MAL, 1962LEB/MIR]
	V		107.1 ± 2.9			[1961FOW/MOR, 1982PIL/SKI]
[Note: The authors of [1961FOW/MOR] noted that the experimental data were not very reproducible, and subject to considerable error.]						
$C_5HF_6LiO_2$	[22466-51-9]	(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)lithium				
	SUB	(453–523)	149.5 ± 3.5			[2006FIL/SYS]
The above value was calculated assuming the vapor phase is a dimer.						
$C_5H_4F_3LiO_2$	[127892-64-2]	(1,1,1-trifluoro-2,4-pentanedionato)lithium				
	SUB	(453–523)	145.6 ± 3.0			[2006FIL/SYS]
The above value was calculated assuming the vapor phase is a dimer.						
$C_8H_{10}F_3LiO_2$	[22441-09-4]	(2-2-dimethyl-6,6,6-trifluoro-3,5-hexanedionato)lithium				
	SUB	(453–523)	182.0 ± 2.3			[2006FIL/SYS]
The above value was calculated assuming the vapor phase is a dimer.						
$C_{11}H_{19}LiO_2$	[22441-13-0]	(2,2,6,6-tetramethylheptane-3,5-dionato)lithium				
	SUB	(400–450)	191.2 ± 7.1		ME,MS	[2006FIL/STA]
	SUB	(444–543)	181.1 ± 2.8			[2006FIL/SYS]
	SUB	(537–545)	198.0 ± 15.1			[2006FIL/SYS]
	SUB	(444–549)	178.3 ± 2.0			[2006FIL/SYS]
	SUB		174.5		ME	[1973BRU/CUR]
The above four values were calculated assuming the vapor phase is a tetramer.						
	V	(550–581)	95.6 ± 1.3			[2006FIL/SYS]
The above value was calculated assuming the vapor phase is a tetramer.						
$LiBH_4$	[16949-15-8]	lithium tetrahydroborate				
	TRS		5.07	386.6	DSC	[2011KHA/NUT]
LiF	[7789-24-4]	Lithium fluoride				
	SUB	(1073–1121)	268.2 ± 4.2			[1959SCH/MAR, 1958EIS/ROT]
	SUB	(957–1113)	267.8 ± 4.2			[1958POR/SCH]
Lu						
$C_{15}H_{15}Lu$	[1272-24-8]	tris(cyclopentadienyl)lutetium(III)				
	SUB		123.0 ± 2.9			[1973DEV/BOR]
$C_{15}H_{21}LuO_6$	[17966-84-6]	tris(2,4-pentanedionato)lutetium(III)				
	SUB	(403–433)	79 ± 13	418		[1983TRE/BER]
$C_{33}H_{57}LuO_6$	[15492-45-2]	tris(2,2,6,6-tetramethylpentane-2,4-dionato)lutetium(III)				
	SUB		135.8 ± 2.9	298	DSC	[1999SAN/PET]
	SUB	(363–413)	154.8	390	ME	[1981AMA/SAT]
	SUB	(420–448)	134.2	434	BG	[1969SIC/DUB]
	V	(448–490)	83.6		BG	[1969SIC/DUB]
Mg						
$C_{10}H_{10}Mg$	[1284-72-6]	bis(cyclopentadienyl) magnesium				
	SUB		68.2 ± 1.3		298	[1982PIL/SKI, 1967HUL/REI, 1967TUR]
$C_{10}H_{22}Mg$	[19978-31-5]	bis(2,2-dimethylpropyl)magnesium				
	SUB	(318–348)	160.0 ± 2.0	333	ME	[1983AKK/SCH]
$C_{18}H_{12}MgN_2O_2$	[14639-28-2]	bis(8-hydroxyquinolinato)magnesium(II)				
	SUB		230.2 ± 4.0	298	ME	[1994RIB/MAT]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{16}MgN_2O_2$	[14406-92-9]	bis(8-hydroxy-2-methylquinolinate)magnesium(II)				
	SUB	(533–549)	212.2 ± 6.5	541	ME	[1998RIB/MAT3]
	SUB	(533–549)	224.3 ± 6.5	298	ME	[1998RIB/MAT3]
$C_{28}H_{54}MgN_2O_4$	[302351-10-6]	(*N*,*N*,*N*′,*N*′-tetramethylethylenediamine)bis((2,2,6,6-tetramethyl-3,5-heptanedionato)magnesium				
	FUS		58.3 ± 5.2		DTA	[2008MAR/SEL]
	SUB		83.2 ± 2.3		TGA	[2008MAR/SEL]
$C_{31}H_{61}MgN_3$		(*N*,*N*,*N*′,*N*′,*N*″-pentamethyldiethylenetriamine) bis(2,2,6,6-tetramethyl-3,5-heptanedianato)magnesium				
	FUS		19.0	352.7	DTA	[2009MAR/SEL]
	SUB		77.0		F+V	[2009MAR/SEL]
	V	(373–441)	59 ± 1		TGA	[2009MAR/SEL]
$C_{44}H_{76}Mg_2O_8$	[236095-55-9]	tetrakis(2,2,6,6-tetramethyl-3,5-heptanedianato)dimagnesium				
	V	(395–476)	67 ± 2		TGA	[2009MAR/SEL]
MgF_2	[7783-40-6]	Magnesium fluoride				
	SUB	(1220–1450)	359.8	1330	MS	[1962BER/MAR]
	SUB	(1273–1513)	327.3 ± 4.3	1400	TE	[1964GRE/KO]
	SUB		348.2 ± 4.3	298		[1964GRE/KO]
Mn						
$C_4H_{16}Cl_2MnN_8S_4$	[28813-17-4]	*trans*-dichloro-tetrakis(thiourea)manganese(II)				
	SUB	(382–409)	133 ± 20			[1970ASH]
C_5BrMnO_5	[14516-54-2]	Bromo(pentacarbonyl)manganese				
	SUB		58.6 ± 8.4	298		[1982PIL/SKI, 1972CON/SKI]
	SUB		880 ± 2.0	298	C	[1982CON/ZAF]
C_5ClMnO_5	[14100-30-2]	Chloro(pentacarbonyl)manganese				
	SUB		58.6 ± 8.4	298		[1982PIL/SKI, 1972CON/SKI]
	SUB		91 ± 9			[1982CON/ZAF]
C_5IMnO_5	[14879-42-6]	Iodo(pentacarbonyl)manganese				
	SUB		77.4 ± 1.4	298	C	[1982CON/ZAF]
$C_5H_3MnO_5Si$	[15770-61-3]	Silyl pentacarbonyl manganese				
	V	(294–391)	39.6	343	T	[1969AYL/CAM2, 1967AYL/CAM]
$C_6F_3MnO_5$	[13601-14-4]	Pentacarbonyl(trifluoromethyl)manganese				
	SUB		77.8 ± 1.0	298	C	[1982CON/ZAF]
$C_6H_3MnO_5$	[13601-24-6]	Methyl(pentacarbonyl)manganese				
	SUB		60.3 ± 1.0			[1982PIL/SKI, 1974BRO/CON]
	SUB	(293–403)	60.2			[1958HIE/WAG]
$C_7F_3MnO_6$	[14099-62-8]	Pentacarbonyl(trifluoroacetyl)manganese				
	SUB		79 ± 5	298	C	[1982CON/ZAF]
$C_7H_3MnO_6$	[13963-91-2]	Acetyl(pentacarbonyl)manganese				
	SUB		80 ± 7	298	C	[1982CON/ZAF]
$C_8H_5MnO_3$	[12079-65-1]	Cyclopentadienyl(tricarbonyl)manganese				
	FUS		18.9	350.1	DSC	[2008PIO/CAN]
	SUB		72.2 ± 3.9	294	ME	[2008PIO/CAN]
	SUB		72.0 ± 3.9	298	ME	[2008PIO/CAN]
	SUB		75.8 ± 0.4	305	C	[2008PIO/CAN]
	SUB		76.0 ± 0.4	298	C	[2008PIO/CAN]
	SUB	(323–353)	52.7 ± 3.1	338		[1982PIL/SKI, 1965EVS/SHM, 1970BAE/DEM]
	SUB	(335–343)	64.2 ± 11.6	339	ME	[1959COR/SCH, 2008PIO/CAN]
	V	(353–489)	50.8	421		[1970BAE/DEM]
$C_8H_{10}Cl_2MnN_6O_2$	[74543-44-5]	[manganese-(cytosine)$_2$Cl$_2$]				
	SUB	(433–453)	U 146 ± 21	443	ME	[1984BUR/MOR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_8H_5MnO_3$	[12079-65-1]	Cyclopentadienylmanganese tricarbonyl				
	SUB	(335–343)	43.1	339		[1959COR/SCH]
$C_{10}MnO_{10}Re$	[14693-30-2]	Decacarbonylmanganeserhenium				
	SUB		109 ± 4	363	C	[1998ADD/CON]
	SUB		86 ± 4	298		[1998ADD/CON]
	SUB	(363–440)	68.6	401	MM	[1971BAE/DEM]
	V	(440–463)	56.5	451		[1971BAE/DEM]
$C_{10}Mn_2O_{10}$	[10170-69-1]	Decacarbonyldimanganese				
	SUB		80.3 ± 4.2	298		[1982PIL/SKI, 1958GOO/FAI]
	SUB		92.3 ± 2.1	298	C	[1982CON/ZAF]
	SUB	(351–428)	80.3 ± 2.1	390	MM	[1971BAE/DEM]
	SUB		62.8 ± 4.2			[1960COT/MON]
[Note: The latter value is likely an enthalpy of vaporization.]						
	V	(428–463)	60.7 ± 1.3	446		[1971BAE/DEM]
$C_{10}H_6Mn_2O_8S_2$	[21321-38-0]	bis(μ-methanethiolato)octacarbonyldimanganese				
	SUB		114.2 ± 0.8	340	C	[1995CON/GOB2]
$C_{10}H_{10}Mn$	[1271-27-8]	bis(cyclopentadienyl)manganese				
	SUB	(298–445)	72.4	371.5	A	[1987STE/MAL]
	SUB		75.7 ± 1.7	298		[1982PIL/SKI, 1971TEL/RAB]
	SUB		72.4			[1956WIL/COT]
	V	(378–435)	58.0	393	A	[1987STE/MAL]
$C_{10}H_{14}MnO_4$	[14024-58-9]	bis(2,4-pentanedionato) manganese(II)				
	SUB	(390–440)	139.3 ± 2.5	298	ME	[1990MAL/ALI]
	SUB		87.0	343		[1981MAS/BAR]
	SUB		88.7			[1972BOL, 2000DUN]
	SUB		88.7	400		[1970GOE/BLO]
$C_{11}H_5MnO_5$	[13985-77-8]	Phenyl(pentacarbonyl)manganese				
	SUB		84.9 ± 4.4	298	C	[1982CON/ZAF]
$C_{12}H_5MnO_6$	[15612-92-7]	Benzoyl(pentacarbonyl)manganese				
	SUB		123 ± 3	298	C	[1982CON/ZAF]
$C_{12}H_7MnO_5$	[14049-86-6]	Benzyl(pentacarbonyl)manganese				
	SUB		84.5 ± 0.7	298	C	[1982CON/ZAF]
$C_{15}H_{12}F_9MnO_6$	[14526-24-0]	tris(1,1,1-trifluoro-2,4-pentanedionato) manganese(III)				
	SUB	(378–413)	120.5 ± 9.2		GS	[1985MAT/KUW]
	SUB		117.3			[1971ASH]
	SUB		77.8			[1964WOO/JON]
$C_{15}H_{21}MnO_6$	[14284-89-0]	tris(2,4-pentanedionato) manganese(III)				
	FUS		27.7	421.9	DSC	[2004SAB/MAR]
	SUB		130.5 ± 4.0		MS	[2010KAM/YAR]
	SUB	(320–380)	124.7 ± 3.8	298	ME	[1990MAL/ALI]
	SUB		120 ± 10	298	E	[1988RIB/FER2]
	SUB		99.0	392		[1981MAS/BAR]
	SUB		113	370		[1970GOE/BLO]
	SUB		77.8 ± 0.8	298		[1982PIL/SKI, 1968HIL/IRV]
$C_{18}H_{12}MnN_2O_2$	[14495-13-7]	bis(8-hydroxyquinolinato) manganese(II)				
	SUB		194.6 ± 10.4	298	ME	[1994RIB/MAT]
	SUB	(615–650)	208.4 ± 14	633	ME	[1984BUR/MOR]
	SUB	(615–650)	226 ± 14	298	ME	[1984BUR/MOR]
$C_{20}H_{16}MnN_2O_2$	[14515-78-7]	bis(8-hydroxy-2-methylquinolinate)manganese(II)				
	SUB	(521–541)	199.6 ± 7.2	531	ME	[1998RIB/MAT3]
	SUB	(521–541)	211.2 ± 7.2	298	ME	[1998RIB/MAT3]
$C_{30}H_{27}MnO_6$	[14376-07-9]	tris(1-phenylbutane-1,3-dionato)manganese(III)				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		195 ± 10	298	E	[1988RIB/FER2]
$C_{33}H_{57}MnO_6$	[14324-99-3]	tris(2,2,6,6-tetramethylheptane-3,5-dionato)manganese(III)				
	SUB		89.0 ± 7.0	298	MS	[2011KAM/DEM]
	SUB	(350–408)	139.0 ± 1.6	379	ME	[2010SID/SID]
	SUB		140 ± 10	298	E	[1988RIB/FER2]
$C_{44}H_{28}MnN_4$	[31004-82-7]	5,10,15,20-tetraphenylporphine manganese(II)				
	SUB		175 ± 1		UV	[1993SHE/KAR]
MnF_2	[7782-64-1]	Manganese(II) fluoride				
	SUB	(1054–1128)	305.4 ± 6.7	1103	MS	[1964KEN/EHL]
	SUB	(1054–1128)	318.4 ± 8.4	298	MS	[1964KEN/EHL]
	SUB	(887–924)	319.7 ± 2.1	298		[1963BAU/MAR]
	V	(1130–1270)	291.8 ± 6.3	1165	ME	[1969HIT/KAN]
	V	(1132–1193)	300.8 ± 6.7	1159	MS	[1964KEN/EHL]
Mo						
$C_4H_4Mo_2O_8$	[51329-49-8]	Dimolybdenum(II) tetraformate				
	SUB		135.0 ± 1.4	483		[2011SLY/KOZ]
C_6MoO_6	[13939-06-5]	Molybdenum hexacarbonyl				
	FUS		25.1	423.29	DSC	[2013BER/CAN]
	FUS		26.78	419.2	DSC	[1976FAB/MAS]
	SUB		73.4 ± 0.3	298	C	[2013BER/CAN]
	SUB	(265–300)	77.7			[2001OHT/CIC]
	SUB	(316–423)	69.1	331	A	[1987STE/MAL]
	SUB	(240–285)	76.9 ± 0.9	263	ME	[1979DAA/ERN, 1980BOX/ERN]
	SUB		73.8 ± 1.0			[1975PIL/WAR, 1974BAR/PIL]
	SUB	(343–383)	69.7	363		[1960MON/COT, 1947LAN/GER]
	SUB	(323–403)	72.5			[1952REZ/SHV]
	SUB	(292–308)	72.8			[1947LAN/GER]
	SUB		68.2			[1935HIE/ROM]
$C_7H_3MoNO_5$	[17594-16-0]	Acetonitrile molybdenum pentacarbonyl				
	SUB	(260–279)	105.8 ± 5.6	298		[1980CAV/ERN]
$C_8F_{12}Mo_2O_8$	[36608-07-8]	Dimolybdenum tetratrifluoroacetate				
	SUB		115.3 ± 1.2	420		[2011SLY/KOZ]
	SUB	(330–370)	113.6 ± 1.7	350	ME,TE	[1984CAR]
$C_8H_{12}CrMoO_8$	[71561-64-3]	Chromium molybdenum tetraacetate				
	SUB		165.0 ± 8.4			[1982PIL/SKI]
$C_8H_{12}Mo_2O_8$		Dimolybdenum tetraacetate				
	SUB	(400–420)	170.5 ± 7	410	ME,TE	[1984CAR]
$C_8H_{12}Mo_2O_8$	[14221-06-8]	Tetra-μ-acetatodimolybdenum(II)				
	SUB		129 ± 1	491	C	[2008SLY/KON]
	SUB		165.0 ± 8.4	298		[1982PIL/SKI, 1979CAV/GAR]
$C_8H_{24}MoN_4$	[100207-68-9]	tetrakis(dimethylamino)molybdenum				
	SUB		88.4 ± 3	376	C	[1979ADE/CAV]
	SUB		72.4 ± 6	298	C	[1979ADE/CAV, 1982PIL/SKI]
$C_9H_9MoN_3O_3$	[15038-48-9]	tris(acetonitrile) molybdenum tricarbonyl				
	SUB	(283–308)	111.3 ± 3.0	298		[1980CAV/ERN]
	SUB		96.0 ± 10.0	298		[1982PIL/SKI, 1978ADE/CON]
$C_{10}H_5MoNO_5$	[14324-76-6]	Pyridine(pentacarbonyl)molybdenum				
	SUB	(283–299)	102.0 ± 2.0	291	ME	[1979DAA/ERN]
$C_{10}H_8MoO_3$	[12125-77-8]	Cycloheptatriene(tricarbonyl)molybdenum				
	SUB		88.0 ± 4.0	298		[1982PIL/SKI, 1977BRO/CON]
$C_{10}H_{10}CI_2Mo$	[12184-22-4]	Dichlorobis(η^5-2,4-cyclopentadien-1-yl)molybdenium				
	SUB		100.4 ± 4.2	298	E	[1976TEL/RAB]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{10}H_{10}I_2Mo$	[12184-29-1]	bis(η^5-2,4-cyclopentadien-1-yl)diiodomolybdenium				
	SUB		100.4 ± 4.2	298	E	[1976TEL/RAB]
$C_{10}H_{11}MoNO_5$	[19456-57-6]	Piperidine(pentacarbonyl)molybdenum				
	SUB	(275–289)	121.9 ± 5.1	282	ME	[1979DAA/ERN]
$C_{10}H_{12}Mo$	[1291-40-3]	bis(η^5-2,4-cyclopentadien-1-yl)dihydromolybdenium				
	SUB		81.4 ± 1.0		ME	[1990DIA/DIO]
	SUB		92.5 ± 2.1			[1976TEL/RAB]
$C_{11}H_8MoO_4$	[12146-37-1]	Norbornadienemolybdenumtetracarbonyl				
	SUB		92.0 ± 4.0	298		[1982PIL/SKI, 1977BRO/CON]
$C_{12}H_{12}Mo$	[12129-68-9]	Dibenzene molybdenum				
	SUB		94.6 ± 8			[1970COX/PIL, 1961FIS/FRI]
$C_{12}M_{16}Mo$	[39333-52-3]	Dimethyldicyclopentadienylmolybdenum				
	SUB		70.4 ± 4.2	298		[1982PIL/SKI, 1980DEP]
$C_{12}H_{20}Mo_2O_8$	[41880-55-1]	tetrakis[μ-(propanoato-O:O′)]dimolybdenum				
	SUB		129.0 ± 1.1	491	C	[2008SLY/KON]
$C_{12}H_{36}Mo_2N_6$	[51956-20-8]	hexakis(dimethylamine)dimolybdenum(II)				
	SUB		111 ± 8	298	C	[1979ADE/CAV, 1981CAV/CON]
$C_{14}H_{20}Mo_2O_8$		Di-μ-acetatobis(pentane-2,4-dionato)dimolybdenum(II)				
	SUB		163.0 ± 5.0	298		[1982PIL/SKI, 1979CAV/GAR]
$C_{16}H_{14}Mo_2N_2O_4$		Di(6-methyl-2-hydroxypyridyl)diacetatodimolybdenum(II)				
	SUB		161.0 ± 4.0	298		[1982PIL/SKI, 1981CAV/GAR]
$C_{18}H_{15}MoN_3O_3$	[15279-79-5]	tris(pyridine)tricarbonylmolybdenum				
	SUB		142.0 ± 10.0	298		[1982PIL/SKI, 1978ADE/CON]
$C_{18}H_{42}Mo_2O_6$	[62521-20-4]	hexakis(isopropoxy)dimolybdenum				
	SUB		113 ± 10	298	C	[1981CAV/CON]
$C_{24}H_{24}Mo_2N_4O_4$	[67634-80-4]	Tetra(6-methyl-2-hydroxypyridyl)dimolybdenum(II)				
	SUB		157.0 ± 3.0	298		[1982PIL/SKI, 1981CAV/GAR]
$C_{24}H_{56}Mo_2O_8$	[79376-50-4]	octakis(isopropoxy)dimolybdenum(II)				
	SUB		137.0 ± 15	298	C	[1981CAV/CON]
$MoFe_6$	[7783-77-9]	Molybdenum hexafluoride				
	TRS	(4–347)	8.17	263.6		
	FUS	(4–347)	4.33	290.7	AC	[1966OSB/SCH]
	SUB		34.9			[1931RUF/ASC]
	V	(318–363)	27.4	340		[1968NIS/NIK]
	V	(291–320)	27.7 ± 0.1	298		[1966OSB/SCH]
	V		26.7			[1931RUF/ASC]
N						
BrClFN	[145543-68-6]	Bromochlorofluoroammonia				
	V	(240–310)	30.2	275		[1996SLA/NOV]
BrF_2N	[15605-95-5]	Bromodifluoroammonia				
	V	(180–250)	23.2	215		[1996SLA/NOV]
Br_2FN	[145543-67-5]	Dibromofluoroammonia				
	V	(280–350)	33.6	315		[1996SLA/NOV]
Br_3N	[15162-90-0]	Nitrogen tribromide				
	V	(380–450)	44.1	415		[1996SLA/NOV]
ClF_2N	[13637-87-1]	Chlorodifluoroamine				
	V		18.2			[1960PET]
ClI_2FN	[17417-38-8]	Dichlorofluoroammonia				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(200–280)	25.7	240		[1996SLA/NOV]
CI_3N	[10025-85-1]	Nitrogen trichloride				
	V	(280–440)	32.9	360		[1996SLA/NOV]
ND_3	[13550-49-7]	Deuteroammonia				
	V	(202–239)	25.1			[1934JUN/TAY]
NFO_3	[7789-26-6]	Nitroxy fluoride				
	V	(145–205)	20.0	175		[1935RUF/KWA]
NF_3	[7783-54-2]	Nitrogen trifluoride				
	TRS	(12–144)	1.5	56.62		
	FUS	(12–144)	0.40	66.37		[1955PIE/PAC]
HNO_3	[7697-37-2]	Nitric acid				
	V	(273–356)	38.6	312		[1966HOL]
NH_3	[7664-41-7]	Ammonia				
	FUS		5.55	195.4	S-V	[1937OVE/GIA]
	FUS		5.97	195.5		[1924EUC/KAR]
	SUB	(177–195)	31.2			[1937OVE/GIA]
	V	(293–392)	22.7	308		[1979ZAN/THO]
	V	(199–241)	23.5	239		[1937OVE/GIA]
	V		23.4	239	C	[1937OVE/GIA]
	V		19.6	285		[1912LAN/BOR, 1918OSB/DUS]
	V		24.3	240		[1907FRA/KRA, 1918OSB/DUS]
	V		22.9	240		[1906BRI, 1907FRA/KRA]
	V		24.1	240		[1903DEF, 1907FRA/KRA]
	V		20.8	289		[1900VON, 1907FRA/KRA]
	V		20.7	285	C	[1891JAC/HOB, 1918OSB/DUS]
	V		21.1	285	C	[1871REG2, 1918OSB/DUS]
NH_3O	[7803-49-8]	Hydroxylamine				
	SUB	(261–280)	64.2			[1965BAC/BET]
	SUB	(273–298)	U46.5	285		[1941BOD]
NH_4Br	[12124-97-9]	Ammonium bromide				
	TRS		3.01	427.4	DSC	[1990GEN/LUB]
	SUB		183.7	550	I	[1971CAL/SMI]
	SUB		187.9	298		[1955LUF]
NH_4CI	[12125-02-9]	Ammonium chloride				
	TRS	(8–300)	1.17	242.5	AC	[1972CHI/NAK]
	SUB		168.6	550	I	[1971CAL/SMI]
	SUB	(308–363)	176.6 ± 0.4		TE	[2001TAN/XUE]
	SUB		177	298		[1955LUF]
NH_4I	[12027-06-4]	Ammonium iodide				
	SUB		182	298		[1955LUF]
NH_4CN	[12211-52-8]	Ammonium cyanide				
	SUB		84.5	298		[1955LUF]
NH_4SCN	[1762-95-4]	Ammonium thiocyanate				
	TRS		3.2	360.7		[1988PET/TSY, 1996DOM/HEA]
	SUB		133.9	298		[1955LUF]
NO	[10102-43-9]	Nitric oxide				
	FUS		2.3	109.5		[1924EUC/KAR]
	V		13.8	212	C	[1929JOH/GIA]
NOCl	[2696-92-6]	Nitrosoyl chloride				
	FUS		7.87	211.9		[1972DUB/DEV]
N_2	[7727-37-9]	Nitrogen				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		0.72	77.34		[1974ANC]
	SUB		6.8	77		[1974ANC]
	V		6.1	77		[1974ANC]
	V	(63–126)	6.1	78		[1967EDE/THO]
	V		5.6	77		[1933GIA/CLA]
N_2F_4	[10036-47-2]	Tetrafluorohydrazene				
	V		26.4	200		[1958COL/KEN]
N_2H_4	[302-01-2]	Hydrazine				
	FUS		12.65	274.6		[1949SCO/OLI]
	SUB		U 46.0			[1941GIG/RUN, 2001GIO]
This value is likely an enthalpy of vaporization. It is referred to in [1941GIG/RUN] as a sublimation enthalpy; however, its numerical value is more in line with the enthalpies of vaporization listed below.						
	V	(276–325)	44.2	298		[1968CHA/GOK]
	V	(288–353)	44.5	303		[1949SCO/OLI]
	V	(361–387)	40.5	374		[1934HIE/WOE]
$N_2H_4O_2S$	[7803-58-9]	Sulfamide				
	SUB	(347–358)	101.5 ± 1.0			[1997DEZ/POI, 1959TAK/SHI]
$N_2H_4O_3$	[6484-52-2]	Ammonium nitrate				
	TRS		1.4	361		
	TRS		4.4	400	DSC	[1970MUR/BRE]
	TRS		1.35	357		
	TRS		4.44	399	Cond. Calor.	[1967NAG/SEI]
	SUB	(321–360)	107.1	298	TE	[2010HIL/LAU2]
[Note: The authors reanalyzed the data in [2010HIL/LAU] using a different (presumably better) value for the equilibrium constant for the decomposition of ammonium nitrate to ammonia and nitric acid.]						
	SUB	(321–360)	87.4 ± 8.4	298	TE	[2010HIL/LAU]
	SUB	(349–438)	178.7			[1962BRA/JUN]
	SUB		174.9	298		[1955LUF]
N_2O	[10024-97-2]	Nitrous oxide				
	FUS		6.5	182.4		[1974ATA/CHI]
	SUB	(125–135)	24.4	130		[1983TER]
	SUB	(135–147)	24.2	141		[1983TER]
	SUB	(68–80)	25.1 ± 0.4	74	LE	[1974BRY/CAZ]
	SUB	(148–182)	24.6	161		[1935BLU/GIA]
	SUB	(103–123)	23.6	113	MG	[1930BLA/VAN]
	V		16.5	184.7		[1974ATA/CHI]
	V	(182–236)	16.1	221		[1945HOG]
N_2O_4	[10544-72-6]	Dinitrogen tetraoxide				
	FUS		12.5	262		[1890RAM]
N_4H_4	[12164-94-2]	Ammonium azide				
	SUB		73.4		DSC	[1985NG/FIE]
Na						
C_4H_9ONa	[865-48-5]	Sodium *tert*-butoxide				
	SUB		NA			[1990VOR/ZVE]
$C_6H_4NNaO_5S$	[5134-88-3]	Sodium 4-nitrobenzenesulfonate				
	FUS		8.32	384.4	DSC	[2016ZHO/ZHA]
$C_6H_{13}ONa$	[67638-48-6]	Sodium methyldiethylmethoxide				
	SUB		NA			[1990VOR/ZVE]
$C_7H_{15}ONa$	[53535-82-3]	Sodium triethylmethoxide				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		NA			[1990VOR/ZVE]
$C_{13}H_{18}O_2Na$	[15687-27-1]	Sodium ibuprofen				
	FUS		16.5	473.3	DSC	[2013CEN/MAR]
$C_{16}H_{13}O_3Na$	[57495-14-4]	Sodium ketoprofen				
	FUS		20.8	457	DSC	[1997HIL/MUL]
$C_{19}H_{17}NNaO_6S_2$	[42540-40-9]	5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2*R*)-2-(formyloxy)-2-phenylacetyl]amino]-3-[[(1-methyl-1*H*-tetrazol-5-yl)thio]methyl]-8-oxo-, sodium salt				
	FUS (IV)		18.88	442.5		
	FUS(V)		13.93	437.0	DSC	[2016HE/WAN]
$C_{32}H_{40}F_{12}NaO_8Pr$	[93557-93-8]	Sodium tetrakis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)praseodymate				
	SUB	(423-483)	155 ± 2	453	T	[1993SYO/GOL]
$C_{32}H_{40}F_{12}NaO_8Tb$	[12576-88-4]	Sodium tetrakis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)terbate				
	SUB	(418–473)	163 ± 3	445	T	[1993SYO/GOL]
$C_{32}H_{40}F_{12}NaO_8Y$	[12576-89-5]	Sodium tetrakis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)yttrate				
	SUB	(418–503)	130 ± 3	460	T	[1993SYO/GOL]
	SUB	(463–503)	142 ± 12	483		[1993SYO/GOL]
NaCl	[7647-14-5]	Sodium chloride				
	V	(1143–1403)	185.5	1273	BP	[1958BLO/BOC]
Nb						
$C_5H_{15}NbO_5$	[1066-25-7]	Niobium pentamethoxide				
	SUB		80.3 ± 10.5		ME,E	[1972TEL/RAB, 1977TEL/RAB]
$C_{10}H_{10}Cl_2Nb$	[12793-14-5]	bis(cyclopentadienyl)niobium dichloride				
	SUB		127.4 ± 4.4	298	ME	[2001DIO/PIE]
$C_{10}H_{25}NbO_5$	[3236-82-6]	Pentaethylniobate				
	V	(413–523)	75.1	468	TG	[2011CAI/YAN]
	V	(376–414)	107.6	391	A,ME	[1987STE/MAL, 1976KLI/SAL]
$C_{15}H_{35}NbO_5$	[38874-17-8]	Niobium pentapropoxide				
	V		95.7		ME	[1976KLI/SAL]
$NbBr_5$	[13478-45-0]	Niobium(V) pentabromide				
	SUB	(298–479)	115 ± 18	298		[1996TUR/EIC]
	SUB		112.5	298		[1996TUR/EIC, 1991KNA/KUB]
$NbCl_5$	[10026-12-7]	Niobium(V) pentachloride				
	SUB	(298–479)	94	298		[1996TUR/EIC, 1991KNA/KUB]
	SUB		95 ± 16	298		[1996TUR/EIC]
$NbCl_3O$	[13597-20-1]	Niobium(V) oxychloride				
	SUB	(298–607)	128.5	298		[1996TUR/EIC, 1991KNA/KUB]
	SUB		124 ± 16	298		[1996TUR/EIC]
Nd						
$C_{15}H_{15}Nd$	[1273-98-9]	tris(cydopentadienyl)neodymium(III)				
	SUB	(533–633)	108.8 ± 3.8			[1973BOR/KRA]
	SUB	(338–438)	134.7 ± 2.1		ME	[1971HAU, 1971HAU2]
	SUB	(443–473)	98 ± 15			[1964DUN/THO]
$C_{30}H_{30}F_{21}NdO_6$	[17978-76-6]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)neodymium(III)				
	SUB	(387–402)	155.2 ± 2.9		ME	[1971SWA/KAR]
$C_{33}H_{57}NdO_6$	[15492-47-4]	tris(2,2,6,6-tetramethylheptane-3,5-dionato)neodymium(III)				
	SUB		159.1 ± 3.4	298	DSC	[1999SAN/PET]
	SUB		92.9 ± 2.5			[1996TSY/DYA2, 2000GIE]
	SUB	(378–423)	177	400	ME	[1981AMA/SAT]
	SUB	(430–491)	158.4	460	BG	[1969SIC/DUB]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(491–510)	99.1		BG	[1969SIC/DUB]
NdI_3	[13813-24-6]	Neodymium triiodide				
	SUB	(857–1037)	287.9 ± 2.4	943	ME	[1975HIR/ROM]
	SUB	(857–1037)	320.5 ± 2.4	298	ME	[1975HIR/ROM]
Ni (C_3MO_3)-(C_3F_9P)		tris(trifluoromethyl)phosphine – nickel tricarbonyl complex				
	V	(273–323)	31.2	298		[1958EME/SMI]
C_4NiO_4	[13463-39-3]	Nickel tetracarbonyl				
	SUB		41.6 ± 0.5			[1953WAL]
	V	(277–412)	29.8	344		[1970BAE]
	V		27.6 ± 1.3			[1957FIS/COT, 1982PIL/SKI]
	V		28.0			[1955SPI/STA]
	V		27.2	298		[1955SPI/STA]
	V		30.2 ± 0.1			[1953WAL]
	V	(250–315)	29.5	265		[1947STU]
	V	(273–298)	30.1	286		[1942SUG/SAT, 1955SPI/STA]
	V	(253–316)	29.0	285		[1930AND]
	V	(263–316)	27.2			[1903DEW/JON, 1955SPI/STA]
$C_4H_{16}Cl_2N_8NiS_8$	[28813-19-6]	*trans*-dichloro-tetrakis(thiourea)nickel(II)				
	SUB	(409–447)	74 ± 20			[1970ASH]
$C_6H_{12}N_2NiS_4$	[15521-65-0]	bis(dimethyldithiocarbamate)nickel				
	V	(448–478)	139.9 ± 2.1	463		[1987STE/MAL, 1978TAV/NEE, 1999DYK/SVO]
$C_8F_{18}NiO_2P_2$	[15188-79-1]	Dicarbonylbis[tris(trifluoromethyl)phosphine]nickel				
	SUB	(293–302)	47.2	298		[1966BUR/STR]
$C_8F_{28}NiP_4$	[14917-18-1]	tetrakis[bis(trifluoromethyl)phorphinous fluoride]nickel				
	SUB	(305–331)	66.6	318		[1966BUR/STR]
$C_{10}H_8F_6NiO_4$	[14324-83-5]	bis(1,1,1-trifluoro-2,4-pentanedionato)nickel(II)				
	SUB	(416–473)	157.7 ± 3.3		GS	[1985MAT/KUW]
$C_{10}H_{10}Ni$	[1271-28-9]	bis(cyclopentadienyl) nickel (nickelocene)				
	FUS		18.0	450.1	DSC	[2011VIE/ROJ]
	FUS		19.0	450.8	DSC	[2011ROJ/VIE]
	SUB	(348–413)	72.6 ± 0.7	298	TGA	[2011VIE/ROJ]
	SUB		71.4 ± 1.3	333	DSC	[2011ROJ/VIE]
	SUB		72.0 ± 2.2	333	C	[2011ROJ/VIE]
	SUB		70.4 ± 1.1	328	Langmuir	[2011ROJ/VIE]
	SUB	(284–306)	71.5 ± 0.6		ME	[1988TOR/BAR2, 2011VIE/ROJ]
	SUB	(284–306)	71.4 ± 0.6	298	ME	[1988TOR/BAR2, 2011VIE/ROJ]
	SUB		70.2 ± 1.5	298		[1984BAE/BAR2]
	SUB	(353–419)	72.4 ± 1.3	298	MM	[1982PIL/SKI, 1975TEL/KIR, 1967TUR]
$C_{10}H_{14}NiO_4$	[3264-82-2]	bis(2,4-pentanedionato)nickel(II)				
	SUB	(357–420)	126.4 ± 4.4	298	ME	[1990MAL/ALI]
	SUB		108.2 ± 5	207	DSC	[1987MUR/HIL]
	SUB		108.2 ± 4.9	480	DSC	[1987RIB/FER]
	SUB		155 ± 80	298	C	[1985MUR/SAK]
	SUB	(378–403)	127.7 ± 10	381	ME	[1984BUR/MOR]
	SUB		132 ± 10	298	ME	[1984BUR/MOR]
	SUB		69.0		I	[1971ASH]
	SUB		95.4	400		[1970GOE/BLO]
	SUB		69.0			[1960BER/TRU, 1965BER/TRU]
$C_{10}H_{20}N_2NiS_4$	[14267-17-5]	bis(diethyldithiocarbamato)nickel(II)				
	SUB	(448–478)	157.3 ± 6.0		C	[1989RIB/REI]
	SUB	(440–478)	152 ± 0.8	459		[1987STE/MAL, 1978TAV/NEE]
	SUB	(507–650)	98.8 ± 6	579	DSC	[1979CAV/HIL2]
	SUB	(443–543)	91.9 ± 6	493	DSC	[1979CAV/HIL2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		151.9 ± 2.1			[1976TAV/NEE]
	SUB		61.1 ± 1.7		I	[1969DAS/WEN]
$C_{12}H_8N_2NiO_4$	[17653-01-9]	bis(picolinato)nickel(II)				
	SUB		76.6		I	[1963WOO/JON]
$C_{13}H_6F_{24}N_2Ni_2O_3P_4$	[14402-98-3]	μ-carbonyldicarbonylbis[μ-[(methylimino)bis[bis(trifluoromethyl)phophine]]]dinickel				
	SUB	(370–390)	92.3	380		[1968SIN/BUR]
$C_{14}H_{10}NiO_4$	[14263-01-5]	bis(salicyladehydato)nickel(II)				
	SUB		85.4		I	[1963WOO/JON]
$C_{14}H_{12}N_2NiO_2$	[14283-99-9]	bis(salicyliminato)nickel(II)				
	SUB		158.2		I	[1963WOO/JON]
$C_{14}H_{12}N_2NiO_4$	[14363-30-5]	bis(salicylaldoximato)nickel(II)				
	SUB	(403–423)	106.6 ± 29	413		[1984BUR/MOR]
	SUB		112 ± 29	298		[1984BUR/MOR]
$C_{14}H_{28}N_2NiS_4$	[14516-30-4]	bis(dipropyldithiocarbamate)nickel				
	SUB		147.2 ± 5.0		C	[1989RIB/REI]
	SUB		126.1 ± 0.8			[1978TAV/NEE]
	V	(433–462)	126.1	448		[1999DYK/SVO]
$C_{14}H_{28}N_2NiS_4$	[15694-55-0]	bis(diisopropyldithiocarbamate) nickel complex				
	SUB		148.0 ± 5.0		C	[1989RIB/REI]
	SUB	(442–477)	143.4 ± 2.1	459.5		[1987STE/MAL, 1978TAV/NEE]
$C_{16}H_8F_6NiO_2S_4$	[14239-90-8]	bis(monothiothenoyltrifluoroacetonate)nickel(II)				
	SUB		161.0 ± 5.1	298	C	[2007RIB/SAN2]
$C_{16}H_{14}N_2MO_2$	[14167-20-5]	*N*,*N*-bis(salicylidene)ethylenediaminonickel(II)				
	SUB	(459–545)	149.8 ± 7.0		ME	[1999ALI/MAL]
$C_{16}H_{16}N_2NiO_2$	[57377-56-7]	bis(2-hydroxyacetophenamine)nickel(II)				
	SUB	(486–582)	130.2 ± 7.2		GS	[2009ARO/MAL]
$C_{16}H_{34}NiP_2S_4$	[83053-11-6]	bis[*P*,*P*-bis(2-methylpropyl)phosphinadithiato]nickel(II)				
	SUB	(433–513)	104.2 ± 2.0	473	GS	[2010KOK/SEM]
$C_{18}H_{12}N_2NiO_2$	[14100-15-3]	bis(8-hydroxyquinolinato)nickel(II)				
	SUB		175.4 ± 6.7	298	ME	[1994RIB/MAT]
	SUB	(468–503)	129.9 ± 6	486	ME	[1984BUR/MOR]
	SUB		139 ± 6	298		[1984BUR/MOR]
$C_{18}H_{14}N_4Ni$	[39251-81-5]	Dibenzotetra-aza-annulene nickel(II) complex				
	SUB	(463–553)	116.6 ± 5.5	508	T	[1983FER/QUA]
$C_{18}H_{20}N_2NiO_2$	[1161880-17-6]	bis(2-hydroxypropiophenamine)nickel(II)				
	SUB	(443–552)	113.0 ± 7.5		GS	[2009ARO/MAL]
$C_{18}H_{36}N_2NiS_4$	[13927-77-0]	bis(dibutyldithiocarbamate)nickel				
	SUB		132.6 ± 5.0		C	[1989RIB/REI]
	V	(438–562)	136.6	500		[1999DYK/SVO]
$C_{18}H_{36}N_2NiO_4$	[28371-07-5]	bis(diisobutyldithiocarbamate)nickel				
	SUB		133.6 ± 5.0		C	[1989RIB/REI]
	SUB	(423–443)	152.1 ± 1.3	433	A	[1987STE/MAL, 1978TAV/NEE]
	V	(453–473)	124	463		[1999DYK/SVO]
$C_2H_{16}N_2NiO_2$	[15200-70-1]	bis(8-hydroxy-2-methylquinolinate)nickel(II)				
	SUB	(489–505)	170.9 ± 3.7	496	ME	[1998RIB/MAT3]
	SUB		180.9 ± 3.7	298		[1998RIB/MAT3]
$C_{22}H_{38}NiO_4$	[14481-08-4]	bis(2,2,6,6-tetramethylheptane-3,5-dionato)nickel(II)				
	SUB	(360–408)	137.8 ± 2.3	384	ME	[2010SID/SID]
	SUB	(453–493)	111		MEM	[1999EMM/PIC]
	SUB		145.2 ± 10		ME	[1978IRV/SCH]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_{42}N_2NiO_2S_4$	[1005000-26-9]	*N*,*N* dibutyl-N′-thenoylthiourea				
	SUB		204.7 ± 3.4	298	C	[2008RIB/SCH]
$C_{22}H_{42}N_2NiO_2S_4$	[1005000-14-5]	*N*,*N* diisobutyl-N′-thenoylthiourea				
	SUB		203.2 ± 2.4	298	C	[2008RIB/SCH]
$C_{22}H_{44}N_2NiS_4$	[55935-69-8]	bis[bis(3-methylbutyl)dithiocarbamate]nickel				
	SUB	(429–468)	164.5	448		[1999DYK/SVO]
$C_{32}H_{16}N_8Ni$	[14055-02-8]	Nickel(II) phthalocyanine				
	SUB		144.6		TGA	[1995YAS/TAK]
$C_{44}H_{28}N_4Ni$	[14172-92-0]	5,10,15,20-tetraphenylporphine nickel(II)				
	FUS		58.4	760.1	DSC	[2010GAM/CAM]
	SUB		152 ± 4		GS	[2000PER/GOL]
$NiBr_2$	[13462-88-9]	Nickel(II) bromide				
	SUB	(714–969)	207 ± 4.0	841	TE	[1997BAR/BRU]
	SUB		226 ± 1.0	298		[1997BAR/BRU]
$NiFr_2$	[10028-18-9]	Nickel(II) fluoride				
	SUB	(1054–1106)	332.2 ± 4.1		ME	[1964EHL/KEN]
Np						
$(C_{10}H_2F_{12}NpO_6)$-(C_3H_9OP)	[106617-32-7]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV) dioxide–trimethylphospine oxide adduct				
	SUB	(370–418)	90 ± 3			[1988GRE/SID]
$C_{20}H_4F_{24}NpO_8$	[110900-26-0]	tetrakis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV)				
	SUB	(314–375)	81 ± 3			[1988GRE/SID, 1987GRE/SID]
$(C_{20}H_4F_{24}NpO_8)$-(C_3H_9OP)	[110934-11-7]	tetrakis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV)-trimethylphospine oxide adduct				
	SUB	(353–404)	100 ± 4			[1988GRE/SID]
$C_{32}H_{40}F_{12}NpO_8$	[99791-99-8]	tetrakis(1,1,1-trimethyl-5,5,5-hexafluoro-2,4-pentanedionato)neptunium(IV)				
	SUB	(374–424)	106 ± 3			[1988GRE/SID, 1987GRE/SID]
$C_{40}H_{40}F_{28}NpO_8$	[27988-02-9]	tetrakis(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)neptunium(IV)				
	SUB	(350–368)	147.7 ± 2.9	359	ME	[1970SWA/KAR]
NpF_6	[14521-05-2]	Neptunium hexafluoride				
	FUS	(7–350)	17.52	327.9	AC	[1970OSB]
O						
H_2O_2	[7722-84-1]	Hydrogen peroxide				
	FUS		12.2	272.7		[1951FOL/GIG]
	V	(273–333)	47.3	303		[1951EGE/EMT]
	V	(277–363)	48.5	320		[1924MAA/HIE]
Os						
$C_{10}H_{10}O_S$	[1273-81-0]	bis(cyclopentadienyl)osmium (osmocene)				
	SUB	(393–506)	72.9 ± 1.4			[1984BAE/BAR]
	SUB		80.5 ± 1.7	298		[1984BAE/BAR]
	SUB		75.3			[1959FIS/GRU]
	V	(506–563)	56.3 ± 1.3	535		[1984BAE/BAR]
$C_{12}O_{12}O\ s_3$	[15696-40-9]	Triosmium dodecacarbonyl				
	SUB		136.0 ± 0.4		TE	[2005CHA/LAU]
	SUB	(349–396)	134.4 ± 0.4		TE	[1999CHA/GAR]
	SUB		104.6 ± 20	298		[1982PIL/SKI, 1974CON/SKI]
	SUB	(423–543)	108.4	483		[1974GAI/BAE]
	V	(497–543)	101.7	520		[1974GAI/BAE2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
P	(See main table for organophosphorous compounds)					
BrF_2P	[15597-40-7]	Bromodifluorophospine				
	V	(222–258)	23.3	240		[1939BOO/FRA]
BrF_2OP	[14014-18-7]	Bromodifluorophosphine oxide				
	V	(220–306)	29.7	263		[1939BOO/SEE]
BrF_2PS	[13706-09-7]	Bromodifluorophospine sulfide				
	V		28.3			[1943BOO/SEA]
Br_2FP	[15597-39-4]	Dibromofluorophospine				
	V	(297–351)	31.5	324		[1939BOO/FRA]
Br_2FOP	[14014-19-8]	Dibromofluorophosphine oxide				
	V	(300–385)	31.5	343		[1939BOO/SEE]
Br_2FPS	[13706-10-0]	Dibromofluorophosphine sulfide				
	V		34.9			[1943BOO/SEA]
Br_3P	[7789-60-8]	Tribromophosphine				
	V		48.5			[1996OVC/MAK, 1963HAR/HOL]
	V	(333–459)	39.7	396		[1941VAN/GER]
Br_3PS	[3931-89-3]	Thiophosphoryl bromide				
	SUB		NA		GSM	[1941NIT/SEK]
Br_5P	[7789-69-7]	Pentabromophosphorane				
	SUB		56.9			[1941VAN/GER2]
ClF_2P	[14335-40-1]	Chlorodifluorophospine				
	V	(191–231)	18.0	210		[1939BOO/BOZ]
ClF_2P		Phosphorothioic chloride difluoride				
	V	(206–281)	24.8	243		[1940BOO/CAS]
Cl_2FP	[15597-63-4]	Dichlorofluorophosphine				
	V	(212–291)	25.0	252		[1939BOO/BOZ]
Cl_2FPS	[2523-93-5]	Phosphorothioic dichloride difluoride				
	V	(244–338)	30.9	281		[1940BOO/CAS]
Cl_3P	[7719-12-2]	Trichlorophosphine				
	V		32.6			[1996OVC/MAK, 1963HAR/HOL]
Cl_3OP	[10025-87-3]	Phosphoryl chloride				
	V		35.4	303		[1937LUC/LIK]
	V		36.4	298		
Cl_5P	[10026-13-8]	Pentachlorophosphorous				
	SUB		67.4 ± 2.3	390		[1973POL/POL]
	SUB		71.1 ± 5.0	298		[1973POL/POL]
	SUB		64.9			[1941VAN/GER]
F_2HOP	[14939-34-5]	Hydrophosphoryl difluoride				
	V	(220–271)	36.1	245	T	[1967CHA/CAV]
F_2HPS	[13780-63-7]	Hydrothiophosphoryl difluoride				
	V	(188-258)	29.1	223	T	[1967CHA/CAV]
F_2N_3OP	[38005-28-6]	Difluorophosphoryl azide				
	V		36.4	296		[1972ONE/SHR]
F_3OP	[13478-20-1]	Phosphorus oxyfluoride				
	SUB		38.0			[1941TAR/EGA]
	V		23.1			[1941TAR/EGA]
F_3P	[7783-55-3]	Trifluorophosphine				
	TRS	(13–168)	0.25	83.8		
	TRS	(13–168)	2.31	110.6		

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS	(13–168)	0.94	121.8		[1962PAC/PET]
	V		14.6	171	C	[1962PAC/PET]
	V		16.5			[1941TAR/EGA]
	V	(157–176)	14.6	166		[1939BOO/BOZ]
F_3PS	[2404-52-6]	Phosphorothioic trifluoride				
	V	(161–222)	19.9	191		[1940BOO/CAS]
$F_4OP_2S_2$		μ-thio-bis(thiophosphoryl difluoride)				
	V	(235–297)	30.0			[1970CHA/CAV]
$F_4P_2S_3$		μ-oxo-bis(thiophosphoryl difluoride)				
	V	(273–325)	37.0			[1970CHA/CAV]
F_5P	[7647-19-0]	Phosphorous pentafluoride				
	V	(179–189)	17.2	184	QM	[1937LIN/ROH]
F_6NP_3	[56564-56-8]	tris(difluorophosphino)amine				
	V		31.2			[1975ARN/RAN]
$F_6N_3P_3$	[15599-91-4]	Trimeric phosphonitrilic fluoride				
	SUB	(273–300)	53.6		T	[1958HAB/UEN]
	SUB		NA			[1958SEE/LAN]
	V		32.1			[1958HAB/UEN]
$F_8N_4P_4$	[14700-00-6]	Tetrameric phosphonitrilic fluoride				
	SUB	(273–303)	58.2		T	[1958HAB/UEN]
	SUB		NA			[1958SEE/LAN]
	V		37.3			[1958HAB/UEN]
$P_3Cl_6N_3$	[940-71-6]	Phosphonitrilic chloride (trimer)				
	SUB		76.1			[1943AUD/STE]
$P_3Cl_6N_3$	[940-71-6]	Hexachlorocyclotriphosphazene				
	FUS		23.5	388.6	AC,DC	[1999LEB/KUL2]
$P_4Cl_8N_4$	[2950-45-0]	Octachlorocyclotetraphosphazene				
	FUS		32.2	400.6	AC,DC	[1999LEB/KUL2]
P_2O_5	[1314-56-3]	Phosphorous pentoxide				
	SUB (hight temp form)		95.4			[1937SOU/NEL]
	SUB (low temp form)		151.5			[1937SOU/NEL]
	V		82.4			[1937SOU/NEL]
PH_3	[7803-51-2]	Phosphine				
	TRS	(15–185)	0.08	30.3		
	TRS	(15–185)	0.77	49.4		
	TRS	(15–185)	0.48	88.1		
	FUS	(15–185)	1.13	139.4		[1937STE/GIA]
	TRS	(11–185)	0.08	30.32		
	TRS	(11–185)	0.48	88.53		
	FUS	(11–185)	1.12	136.66		[1936CLU/FRA]
	SUB	(129–140)	17.2		MM	[1937STE/GIA]
	V		14.6 ± 0.1	186		[1939FRA/CLU]
	V	(140–185)	14.5			[1939FRA/CLU]
	V		14.6	185	C	[1937STE/GIA]
P_4S_3	[1314-85-8]	3,5,7-trithia-1,2,4,6-tetraphosphatricyclo[2.2.1.$0^{2,6}$]heptane(tetraphosphorus trisulfide)				
	TRS		9.75	311		
	FUS		3.08	445.5	DSC	[1979BLA/HOP]
	TRS		10.3	313.9		[1965CLE/WES]
	SUB	(387–425)	104.9 ± 0.6	298	GS	[1991STU/PIA]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(350–400)	102.4 ± 0.2	298	TE	[1991STU/PIA]
	SUB	(335–391)	1021 ± 0.6	298	ME	[1991STU/PIA]
P_4S_7	[12037-82-0]	Tetraphosphorus heptasulfide				
	TRS		1.84	517		
	FUS		34.13	576	DSC	[1979BLA/HOP]
P_4S_{10}		Tetraphosphorus decasulfide				
	FUS		35.93	554	DSC	[1979BLA/HOP]
P_4Se_3	[1314-86-9]	3,5,7-triselena-1,2,4,6-tetraphosphatricyclo[2.2.1.$0^{2,6}$]heptane (tetraphosphorus triselenide)				
	TRS		10.98	356		
	TRS		1.3	479		
	FUS		2.79	522	DSC	[1979BLA/HOP]
P_4Se_4	[56863-52-6]	3,5,7-triselena-1,2,4,6-tetraphosphatricydo[2.2.1.0^{26}]heptane-1-selemde (tetraphosphorus tetraselenide)				
	TRS		2.18	576		
	FUS		24.64	594	DSC	[1979BLA/HOP]
Pb						
C_2H_8Pb	[30691-92-0]	Dimethylplumbane				
	V	(173–223)	25.5	198		[1960AMB]
$C_3H_{10}Pb$	[7442-13-9]	Trimethylplumbane				
	V	(193–243)	31.1	218		[1960AMB]
$C_3H_{12}Pb$	[75-74-1]	Tetramethyllead				
	FUS	(100–260)	10.8	242.9		[1996DOM/HEA, 1954STA/WAR]
	V		38.1 ± 0.4	298		[1959GOO/SCO, 1982PIL/SKI]
	V	(298–308)	35.7	303		[1929TAN/NAG]
$C_3H_9F_5Pb$	[812-34-0]	(pentafluoroethyl)trimethyllead				
	V	(295–329)	39.1	312	T	[1960KAE/PHI]
$C_8H_{20}Pb$	[78-00-2]	Tetraethyllead				
	FUS (I)	(5–315)	9.09	139.4		
	FUS (II)	(5–315)	9.11	141.4	AC	[1996DOM/HEA, 1989RAB/NIS]
	FUS	(90–150)	8.79	142.9		[1954STA/WAR]
	V		56.6 ± 1.0	298	C	[1980ABR/IRV]
	V	(311–456)	57.3	326		[1947STU]
	V		56.9 ± 2.5			[1956GOO/SCO, 1982PIL/SKI]
	V	(273–343)	56.3	308	BG	[1936BUC/NOR]
	V	(351–423)	56.7	387		[1935JON/EVA]
$C_{10}H_2F_{12}O_4Pb$	[19648-88-5]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)lead(II)				
	SUB	(368–413)	111.7 ± 1.3	390	GS	[1997KRI/SYS]
$C_{10}H_{14}O_4Pb$	[15282-88-9]	bis(2,4-pentanedionato)lead(II)				
	SUB	(393–444)	102.4 ± 5.0	418	GS	[1997KRI/SYS]
	SUB		66.9		LE	[1994GER/GER2, 1997KRI/SYS]
$C_{10}H_{20}N_2PbS_4$	[17549-30-3]	bis(diethyldithiocarbamate)lead complex				
	SUB	(444–482)	129.9 ± 2.5	463	A	[1987STE/MAL, 1978TAV/NEE]
$C_{10}H_{20}O_4Pb$	[56767-12-5]	Lead(II) pentanoate				
	FUS		12.6	355.6	DSC	[2008MAR/RAM]
$C_{12}H_{10}Br_2Pb$	[3124-29-6]	Diphenyl lead dibromide				
	SUB	(298–398)	141.8 ± 0.8	298	ME	[1988GOL/SIT, 1976BUT/CAR]
$C_{16}H_{20}F_6O_4Pb$	[21751-12-2]	bis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)lead(II)				
	SUB	(393–463)	117.5 ± 2.8	428	GS	[1997KRI/SYS]
$C_{18}H_{12}N_2PbO_2$	[14976-96-6]	bis(8-hydroxyquinolinato)lead(II)				
	SUB		187.1 ± 6.2	298	ME	[1994RIB/MAT]
$C_{18}H_{15}BrPb$	[894-06-4]	Triphenyl lead bromide				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(298–398)	134.7 ± 3.3	298	ME	[1988GOL/SIT, 1976BUT/CAR]
$C_{18}H_{15}IPb$	[894-07-5]	Triphenyl lead iodide				
	SUB	(298–398)	130.1 ± 0.4	298	ME	[1988GOL/SIT, 1976BUT/CAR]
$C_{20}H_{20}F_{14}O_4Pb$	[21600-78-2]	bis(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato)lead(II)				
	SUB		75.0			[1992NYM/DES]
$C_{22}H_{38}O_4Pb$	[21319-43-7]	bis(2,2,6,6-tetramethyl-3,5-heptanedionato)lead(II)				
	SUB	(373–398)	117.5 ± 2.8	386	GS	[1997KRI/SYS]
	SUB		87.0		LE	[1994GER/GER2, 1997KRI/SYS]
	SUB		86.0			[1992NYM/DES]
	SUB		74.1		ME	[1973BRU/CUR]
$C_{24}H_{20}Pb$	[595-89-1]	Tetraphenyl lead				
	SUB	(412–480)	151	446	A	[1987STE/MAL]
	SUB	(412–474)	159 ± 1	298	ME,TE	[1977KAN/MOR]
	SUB		194.6 ± 6.3	298	E	[1982PIL/SKI, 1972CAR/LAY]
	SUB	(298–316)	U 80.2	298	ME	[1962CAR/COO]
	SUB		82.8	298		[1972NEW]
$C_{32}H_{16}N_8Pb$	[15187-16-3]	Lead(II) phthalocyanine				
	SUB		156.3		TGA	[1995YAS/TAK]
	SUB	(542–663)	195.7			[1984MRW/STA]
$PbBr_2$	[10031-22-8]	Lead(II) bromide				
	SUB	(532–634)	138.5 ± 3.6	583	ME	[2015IIZ/SHI]
PbF_2	[7783-46-2]	Lead(II) fluoride				
	SUB	(793–951)	209.5 ± 3.8	872	TE	[2010PIA/BRU]
	SUB	(793–951)	225 ± 5	298	TE	[2010PIA/BRU]
	SUB		267.8			[1969ZMB/HAS, 1971ADA/MAR]
	SUB	(792–988)	174.1	890	ME	[1959NES/IOF, 2010PIA/BRU]
	V	(1078–1289)	165.2	1183		[1922VON/BOS, 2010PIA/BRU]
PbI_2	[10101-63-0]	Lead(II) iodide				
	SUB	(598–640)	173.1 ± 1.6	298	ME	[1996KON/COR]
	SUB	(474–582)	167.7 ± 1.3	298	MS	[1996KON/COR, 1985HIL/BEN]
	SUB	(900–1150)	182.5 ± 1.0	298		[1996KON/COR, 1979ABA/MAL]
	SUB	(563–613)	165.2 ± 1.8	298	ME	[1996KON/COR, 1964DUN/THO]
	SUB	(579–650)	166.4 ± 1.0	298	ME	[1996KON/COR, 1939NIW/SAT]
	SUB	(923–1073)	165.5 ± 3.0	298	GS	[1996KON/COR, 1929JEL/RUD]
	V	(836–1133)	133.1	985	BP	[1958BLO/BOC]
PbSe	[12069-00-0]	Lead selenide				
	SUB	(835–1047)	226 ± 1		TE	[1993BRU/PIA]
Pd						
$C_8H_{10}Pd$	[1271-03-0]	(cyclopentadienyl)allyl palladium				
	SUB	(291–333)	49.9	312	A	[1987STE/MAL, 1976ZOR/RAC]
$C_{10}H_2F_{12}O_4Pd$	[64916-48-9]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)palladium(II)				
	SUB	(318–368)	93.5 ± 0.6			[2005ZHA/STA]
	SUB	(293–313)	84.6 ± 1.6		ME	[2000ZHA/STA]
	V	(371–398)	67.8 ± 1.4		GS	[2005ZHA/STA]
$C_{10}H_8F_6O_4Pd$	[63742-52-9]	bis(111-trifluoro-2,4-pentanedionato)palladium(II)				
	SUB	(332–378)	115.2 ± 1.4		ME	[2000ZHA/STA]
	SUB	(423–448)	105.0 ± 0.8		GS	[1985MAT/KUW]
$C_{10}H_{10}F_6N_2O_2P$	[203874-01-5]	bis(1,1,1-trifluoro-4-imino-2-pentanonato)palladium(II)				
	SUB	(332–386)	110.9 ± 0.7		ME	[2000ZHA/STA]
$C_{10}H_{14}O_4Pd$	[14024-61-4]	bis(2,4-pentanedionato)palladium(II)				
	SUB	(402–452)	121.5 ± 1.5		GS	[2005ZHA/STA]
	SUB		111.6			[2001MOR/ZHA]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(347–416)	130.1 ± 2.8		ME	[2000ZHA/STA]
	SUB	(330–394)	122.7 ± 8.6	298	ME	[1991MAL/ALI]
	SUB	(363–393)	127.6 ± 17	378	ME	[1984BUR/MOR]
	SUB	(363–393)	132 ± 17	298	ME	[1984BUR/MOR]
$C_{10}H_{20}N_2PdS_4$	[15170-78-2]	bis(diethyldithiocarbamate)palladium(II)				
	SUB	(493–517)	153.1 ± 1.9		GS	[2005ZHA/STA]
	SUB		153.1 ± 1.9			[1999ZEM/STA]
	V	(520–558)	107.6 ± 1.2		GS	[2005ZHA/STA]
$C_{12}H_{28}O_4P_2PdS_4$	[52442-37-2]	Palladium(II) diisopropyldithiophosphate				
	SUB	(384–413)	137.2 ± 5.6		GS	[2005ZHA/STA]
$C_{13}H_{18}O_2Pd$	[12130-90-4]	Acetylacetonato(2,4-cyclooctadienyl)palladium(II)				
	SUB	(344–362)	130.1 ± 6.3		GS	[2005ZHA/STA]
$C_{16}H_{20}F_6O_4Pd$	[77964-87-5]	bis(111-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)palladium(**II**)				
	SUB	(315–357)	131.4 ± 1.9		ME	[2000ZHA/STA]
$C_{16}H_{20}F_6O_6Pd$	[301198-67-4]	bis(1,1-dimethyl-1-methoxy-5,5,5-trifluoro-2,4-pentanedionato)palladium(**II**)				
	SUB	(315–369)	113.8 ± 1.2		ME	[2000ZHA/STA]
$C_{18}H_{12}N_2O_2Pd$	[14638-30-3]	bis(8-hydroxyquinolinato)palladium(II)				
	SUB	(483–503)	158.5 ± 4	493	ME	[1984BUR/MOR]
	SUB	(483–503)	168 ± 4	298	ME	[1984BUR/MOR]
$C_{20}H_{12}F_6O_4Pd$	[85159-01-9]	bis(4,4,4-trifluoro-1-phenyl-1,3-butanedionato)palladium(II)				
	SUB	(386–452)	148.6 ± 1.4		ME	[2000ZHA/STA]
$C_{20}H_{18}O_4Pd$	[15186-07-9]	bis(1-phenyl-1,3-butanedionato)palladium(II)				
	SUB	(410–471)	152.9 ± 1.4		ME	[2000ZHA/STA]
$C_{22}H_{38}O_4Pd$	[15214-66-1]	bis(2,2,6,6-tetramethyl-2,4-heptanedionato)palladium(II)				
	SUB	(343–401)	125.4 ± 1.4		ME	[2000ZHA/STA]
$C_{44}H_{28}N_4Pd$	[76775-77-4]	5,10,15,20-tetraphenylporphine palladium(II)				
	SUB		207 ± 5		GS	[2000PER/GOL]
Pm						
$C_{33}H_{57}O_6P$ m	[67840-53-3]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)promethium(III)				
	SUB	(433–463)	131.8			[1979LEB/BER]
Pr						
$C_{15}H_{15}Pr$	[11077-59-1]	tris(cyclopentadienyl)praseodymium				
	SUB		125.5 ± 3.0	298		[1982PIL/SKI, 1974DEV/RAB]
	SUB	(533–653)	113.0 ± 1.7			[1973BOR/KRA]
	SUB	(338–438)	131.0 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{32}H_{40}F_{12}O_8NaPr$	[93557-93-8]	Sodium tetrakis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)praseodymate				
	SUB	(423–483)	155 ± 2	453	T	[1993SYO/GOL]
$C_{33}H_{57}O_6Pr$	[15492-48-5]	tris(2,2,6,6-tetramethylpentane-2,4-dionato)praseodymium(III)				
	SUB		104.3 ± 2.6			[1996TSY/DYA2, 2000GIE]
	SUB		163.0 ± 3.6		DSC	[1993AIR/SAN, 2000GIE]
	SUB	(383–423)	178.7	403	ME	[1981AMA/SAT]
	SUB	(450–495)	165.4	473	BG	[1969SIC/DUB]
	V	(495–530)	109.2		BG	[1969SIC/DUB]
$PrBr_3$	[13536-53-3]	Praseodymium(III) bromide				
	SUB		288 ± 4	900	TE	[2000VIL/BRU2]
	SUB		306 ± 4	298		[2000VIL/BRU2]
	SUB		292	298		[2000VIL/BRU2]
$PrCl_3$	[10361-79-2]	Praseodymium(III) chloride				
	SUB		317 ± 4	1000	TE	[2000VIL/BRU2]
	SUB		340 ± 4	298		[2000VIL/BRU2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		324	298		[2000VIL/BRU2]
PrI_3	[13813-23-5]	Praseodymium(III) iodide				
	SUB	(856–1048)	291 ± 4	298	ME,MS	[2009MOT/VOR]
	SUB		263 ± 4	900	TE	[2000VIL/BRU2]
	SUB		280 ± 4	298		[2000VIL/BRU2]
	SUB		275	298		[2000VIL/BRU2]
	SUB	(841–1032)	292.6 ± 5.8	937	ME	[1975HIR/ROM]
	SUB	(841–1032)	325.1 ± 5.8	298	ME	[1975HIR/ROM]
Pt						
$C_8H_{14}Pt$	[1271-07-4]	Cyclopentadienyltrimethylplatinum				
	SUB		77.8 ± 2.0	298		[1982PIL/SKI, 1977TEL/RAB]
$C_{10}H_8F_6O_4Pt$	[67596-99-0]	*cis*-bis(trifluoroacetylacetonoato) platinum				
	SUB	(412–461)	106.2 ± 2.1			[2006ZHA/BAI]
$C_{10}H_8F_6O_4Pt$	[76740-70-0]	*trans*-bis(trifluoroacetylacetonoato)platinum				
	SUB	(437–496)	109.9 ± 2.9			[2006ZHA/BAI]
$C_{10}H_{14}O_4Pt$	[15170-57-7]	bis(2,4-pentanedionato)platinum(II)				
	FUS		41.4	512.2	DSC	[2005FLA/HAL]
	SUB		105.9			[2001MOR/ZHA]
	SUB	(363–383)	129.4 ± 9	373	ME	[1984BUR/MOR]
	SUB	(363–383)	133 ± 9	298	ME	[1984BUR/MOR]
$C_{10}H_{20}N_2PtS_4$	[15730-38-8]	bis(diethyldithiocarbamate)platinum(II)				
	SUB		157.1 ± 2.0			[1999ZEM/STA]
$C_{12}H_{16}Pt$	[42613-14-9]	Dicyclopentadienyldimethylplatinum				
	SUB		83.7 ± 3.5	298		[1982PIL/SKI, 1977TEL/RAB]
Pu						
$C_{40}H_{40}F_{28}O_8Pu$	[28041-99-8]	tetrakis(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)plutonium(IV)				
	SUB	(349–363)	153.5 ± 7.9	356	ME	[1970SWA/KAR]
Rb						
$C_5H_9O_2Rb$	[70205-79-7]	Rubidium pivalate				
	SUB		167.1 ± 5.6			[1998KHO/RYK]
Re						
$C_4H_6Br_4O_4Re_2$	[75027-96-2; 75081-56-0]	bis(μ-acetato)tetrabromodirhenium stereoisomer				
	SUB *(cis)*	(410–510)		66.6	A	[1984STE/ALI]
	SUB *(trans)*	(410–510)		59.9	A	[1984STE/ALI]
$C_4H_6Cl_4O_4Re_2$	[62320-69-8; 100495-10-1]	bis(μ-acetato)tetrachlorodirhenium stereoisomer				
	SUB *(cis)*	(450–560)	72.8		A	[1984STE/ALI]
	SUB *(trans)*	(450–560)	64.7		A	[1984STE/ALI]
C_5BrO_5Re	[14220-21-4]	Bromopentacarbonylrhenium				
	SUB		92.1 ± 2		C	[1983ALT/CON]
C_5ClO_5Re	[14099-01-5]	Chloropentacarbonylrhenium				
	SUB		110.9 ± 2		C	[1983ALT/CON]
C_5HO_5Re	[16457-30-0]	Rhenium hydride pentacarbonyl complex				
	SUB	(279–369)	45.1	324		[1987STE/MAL]
$C_6H_3O_5Re$	[14524-92-6]	Rhenium methylpentacarbonyl complex				
	SUB	(315–380)	65.2	347.5	A	[1987STE/MAL, 1960HIE/BRA]
	SUB		70.0 ± 2	298	C	[1983ALT/CON]
	SUB		65.3 ± 1.0	298		[1982PIL/SKI, 1974BRO/CON]
	SUB	(313–383)	64.9			[1958HIE/WAG]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{10}O_{10}MnRe$	[14693-30-2]	Manganese rhenium decacarbonyl				
	V	(440–463)	56.5	451		[1971BAE/DEM]
$C_{10}O_{10}Re_2$	[14285-68-8]	Dirhenium decacarbonyl				
	SUB	(305–339)	95.5 ± 2.3	322	ME	[2011GEL/MOR]
	SUB	(323–353)	93.6 ± 1.7	338	GS	[2011GEL/MOR]
	SUB		100.9 ± 2	298		[1983ALT/CON]
	SUB		93.3 ± 4.2	298		[1982PIL/SKI, 1974BRO/CON]
	SUB	(363–450)	77.6	406	MM	[1971BAE/DEM]
	SUB		79.5			[1961GIN, 1971BAE/DEM]
	V	(454–483)	68.7	468		[1971BAE/DEM]
Rh						
$C_7H_7O_4Rh$	[14874-82-9]	Dicarbonyl-2,4-pentanedionatorhodium complex				
	SUB	(276–301)	87 ± 2.9	289	ME	[1978JES/ERN, 1987STE/MAL]
$C_9H_{13}Cl_2O_2Rh$	[12282-04-1]	bis(chloroethylene)-2,4-pentanedionatorhodiumcomplex				
	SUB	(275–288)	117.2 ± 7.1	281	ME	[1978JES/ERN, 1987STE/MAL]
$C_9H_{15}O_2Rh$	[12082-47-2]	bis(ethylene)-2,4-pentanedionatorhodium complex				
	SUB	(282–301)	97.9 ± 7.1	292	ME	[1978JES/ERN, 1987STE/MAL]
$C_{10}H_{14}O_4Rh$	[69047-66-1]	bis(2,4-pentanedionato)rhodium(II)				
	SUB	(383–447)	173.2 ± 7.0	298		[1991MAL/ALI]
$C_{11}H_{19}O_2Rh$	[12282-38-1]	bis(propylene)-2,4-pentanedionatorhodium complex				
	SUB	(270–296)	86.2 ± 1.7	283	ME	[1978JES/ERN, 1987STE/MAL]
$C_{13}H_{19}O_6Rh$	[31724-87-5]	bis(vinylacetate)-2,4-pentanedionatorhodium complex				
	SUB	(309–328)	121.3 ± 3	319	ME	[1978JES/ERN]
$C_{13}H_{19}O_6Rh$	[31724-88-6]	bis(methyl acrylate)-2,4-pentanedionatorhodium complex				
	SUB	(311–327)	111.7 ± 4.6	319	ME	[1978JES/ERN]
$C_{15}H_{21}O_6Rh$	[14284-92-5]	tris(2,4-pentanedionato)rhodium(II)				
	SUB	(423–473)	127.0 ± 1.0			[2010SYS/CHE]
	SUB		118.8			[2001MOR/ZHA]
	SUB				NA	[1994GER/GER]
$C_{16}O_{16}Rh_6$	[28407-51-4]	Hexarhodiumhexadecacarbonyl				
	SUB		117.2 ± 20.0	298		[1982PIL/SKI, 1975BRO/CON]
Ru						
C_5O_5Ru	[16406-48-7]	Ruthenium pentacarbonyl				
	V	(243–323)	41.0 ± 1.2	298		[1991KOE/BOR, 2013BER/CAN]
	V	(243–323)	42.2	283		[1991KOE/BOR]
$C_{10}H_{10}Ru$	[1287-13-4]	bis(cyclopentadienyl)ruthenium (ruthenocene)				
	SUB	(331–346)	100.52		ME	[2010SID/SID2]
	SUB	(383–479)	76.2 ± 1.4			[1984BAE/BAR]
	SUB		82.7 ± 1.7	298		[1984BAE/BAR]
	SUB		77.6 ± 1.6			[1967TUR]
	SUB	(356–370)	98.7	363		[1959COR/SCH]
	V	(479–544)	53.6 ± 1.4	511		[1984BAE/BAR]
$C_{12}H_{18}O_2Ru$	[857678-47-8]	bis[(2,3,4,5−η-methyl-2,4-pentadien-2-oxato]ruthenium				
	SUB	(360–384)	114.39		ME	[2010SID/SID2]
$C_{13}H_{17}NRu$	[33293-45-7]	*N*,*N* dimethylaminomethylruthenocence				
	SUB	(327–351)	86.27		ME	[2010SID/SID2]
$C_{14}H_{14}O_2Ru$	[54628-71-6]	1,1′-diacetylruthenocene				
	SUB	(369–410)	139.97		ME	[2010SID/SID2]
$C_{14}H_{22}Ru$	[85908-78-7]	bis(η^5-2,4-dimethyl-2,4-pentadienyl)ruthenium				
	SUB	(331–360)	98.28		ME	[2010SID/SID2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{15}H_3F_{18}O_6Ru$	[16827-63-7]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)ruthenium(III)				
	FUS		30.7	374.1	DSC	[2012ZHE/ZEL]
	SUB	(341–374)	97.0 ± 1.0	358	Static	[2012ZHE/ZEL]
	SUB	(299–313)	114.1 ± 1.0	306	ME	[2001RIB/MON]
	SUB	(299–313)	114.5 ± 1.0	298	ME	[2001RIB/MON]
	V	(377–418)	67.7 ± 0.7	398	Static	[2012ZHE/ZEL]
$C_{15}H_{12}F_9O_6Ru$	[16702-38-8]	tris(1,1,1-trifluoro-2,4-pentanedionato)ruthenium(III)				
	SUB	(363–393)	117.0 ± 2.0			[2010SYS/CHE]
	(cis + trans)					
	SUB	(346–467)	131.4 ± 4.6		ME	[2009MOR/ZHE]
	SUB	(350–369)	126.8 ± 1.0	360	ME	[2001RIB/MON]
	SUB		129.9 ± 1.0	298	ME	[2001RIB/MON]
	SUB	(383–423)	90.0 ± 3.0			[1996BYK/MOR]
	V *(cis + trans)*	(443–448)	78.1 ± 0.5			[2010SYS/CHE]
	V *(cis + trans)*	(448–478)	80.3 ± 2.0			[2010SYS/CHE]
$C_{15}H_{16}O_3Ru$	[1251459-25-2]	Name not assigned				
	SUB	(374–394)	132.85		ME	[2010SID/SID2]
$C_{15}H_{21}O_6Ru$	[14284-93-6]	tris(2,4-pentanedionato)ruthenium(III)				
	FUS		25.0	503.9	DSC	[2012ZHE/ZEL]
	SUB	(423–493)	127 ± 1.0			[2010SYS/CHE]
	SUB	(374–434)	129.1 ± 2.0		ME	[2009MOR/ZHE]
	SUB	(394–441)	148.8 ± 1.7	418	ME	[2009SID/SID]
	SUB	(377–435)	128.9 ± 1.9		ME	[2007IGU/SEM]
	SUB		126.6			[2001MOR/ZHA]
	SUB	(423–493)	127.0 ± 0.9			[1996BYK/MOR]
	SUB	(398–413)	139.7 ± 2.5	406	ME	[1993RIB/GIE]
	SUB		145.1 ± 2.5	298	ME	[1993RIB/GIE]
$C_{16}H_{18}O_3Ru$	[1251459-24-1]	Name not assigned				
	SUB	(379–403)	114.39		ME	[2010SID/SID2]
$C_{16}H_{26}RuSi_2$	[144810-60-6]	1,1-bis(trimethylsilyl)ruthenocene				
	SUB	(331–346)	151.51		ME	[2010SID/SID2]
$C_{24}H_{36}F_3O_6Ru$	[87933-58-2]	tris(1,1,1-trifluoro-5,5-dimethyl-2,4-hexandianato)ruthenium(HI)				
	V	(322–347)	75.7 ± 3.3		ME	[2009MOR/ZHE]
$C_{30}H_{51}O_9Ru$	[1415684-54-6]	Name not assigned				
	FUS		47.5	332.4	DSC	[2012ZHE/ZEL]
$C_{33}H_{54}F_3O_6Ru$	[1226984-07-1]	tris(2,2,6,6-tetramethyl-4-fluoro-3,5-heptanedianato)ruthenium(III)				
	SUB	(353–393)	130.0 ± 2.7		ME	[2009MOR/ZHE]
$C_{33}H_{57}O_6Ru$	[38625-54-6]	tris(2,2,6,6-tetramethyl-3,5-heptanedionato)ruthenium(III)				
	SUB	(353–393)	149.2 ± 2.2		ME	[2009MOR/ZHE]
S						
Br_2OS	[507-16-4]	Thionyl bromide				
	V	(313–439)	43.6	330		[1999DYK/SVO]
	V	(318–411)	42.3	364		[1926MAY/PAR, 1968FIN/GAR]
Br_2S_2	[13172-31-1]	Disulfur dibromide				
	V	(365–503)	53.9	380		[1999DYK/SVO]
Br_2FO_2S	[13536-61-3]	Sulfuryl bromide fluoride				
	V	(236–333)	32.0	251		[1999DYK/SVO]
ClF_2NO_2S	[30913-20-3]	Difluoroamidosulfuryl chloride				
	V	(232–290)	31.2	261		[1971ZAB/SHR]
ClFOS	[14177-25-4]	Thionyl chloride fluoride				
	V	(212–304)	27.7	227		[1999DYK/SVO]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$ClFO_2S$	[13637-84-8]	Sulfuryl chloride fluoride				
	V	(211–300)	29.0	226		[1999DYK/SVO]
	V		24.8			[1940BOO/MER]
	V	(193–282)	26.5	237		[1936BOO/HER]
$ClFO_5S_2$	[13637-85-9]	Pyrosulfuryl chloride fluoride				
	V	(284–396)	40.8	299		[1999DYK/SVO]
$ClHO_3S$	[7790-94-5]	Chlorosulfonic acid				
	V	(324–454)	45.8	339		[1999DYK/SVO]
Cl_2OS	[7719-09-7]	Thionyl chloride				
	V	(257–372)	32.4	272		[1999DYK/SVO]
	V		32.0			[1974AUB/GUI]
	V		32.1			[1940BOO/MER]
	V	(245–299)	31.1	272		[1942CHE]
	V	(293–348)	31.6	298		[1929ARI]
Cl_2O_2S	[7791-25-5]	Sulfuryl chloride				
	V	(257–365)	34.5	272		[1999DYK/SVO]
	V		31.8			[1974AUB/GUI]
	V	(273–333)	33.0	303		[1937LUC/LIK]
$Cl_2O_5S_2$	[7791-27-7]	Pyrosulfuryl dichloride				
	V	(325–450)	44.7	340		[1999DYK/SVO]
Cl_2S	[10545-99-0]	sulfur chloride				
	V	(265–348)	43.8	280		[1999DYK/SVO]
Cl_2S_2	[10025-67-9]	Disulfur dichloride				
	V	(306–439)	41.1	321		[1999DYK/SVO]
	V	(273–411)	36.0	342		[1926HAR/SCH]
D_2S	[13536-94-2]	Deuterium sulfide				
	TRS		1.68	107.8		
	TRS		0.52	132.8		
	FUS		2.37	187.1		[1937KRU/CLU]
FHO_3S	[7789-21-1]	Fluorosulfonic acid				
	V	(343–459)	55.7	358		[1999DYK/SVO]
FNS	[18820-63-8]	Thiazyl fluoride				
	V	(270–299)	21.7	285		[1999DYK/SVO]
F_2HPS	[13780-63-7]	Hydrothiophosphoryl difluoride				
	V	(188–258)	29.1	223	T	[1967CHA/CAV]
F_2N_2S	[500010-01-5]	Dinitrogen sulfur difluoride				
	V	(192–281)	23.9	207		[1999DYK/SVO]
F_2OS	[7783-42-8]	Thionyl fluoride				
	V	(173–244)	23.7	188		[1999DYK/SVO]
	V		21.8			[1940BOO/MER]
F_2O_2S	[2699-79-8]	Sulfuryl fluoride				
	V	(160–233)	20.0	175		[1999DYK/SVO]
F_2O_4S	[13997-94-9]	Peroxysulfuryl difluoride				
	V	(198–248)	25.7	223		[1975GAM/SIC]
$F_2O_5S_2$	[13036-75-4]	Pyrosulfuryl difluoride				
	V	(240–346)	31.4	255		[1999DYK/SVO]
$F_2O_8S_3$	[13709-33-6]	trisulfur octoxide difluoride				
	V	(296–419)	40.7	311		[1999DYK/SVO]
F_2S_2	[16860-99-4]	Disulfur difluoride				
	V	(153–196)	14.9	168		[1999DYK/SVO]
F_3NO_3S	[6816-12-2]	*N*,*N* difluorohydroxylamine-*O*-fluorosulfonate				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(206–272)	24.6	239		[1963LUS/CAD]
F_3NS	[501679-94-3]	*N*-fluorosulfur difluoride amide				
	V	(213–246)	24.1	230		[1969GLE/MEW]
F_3NS	[15930-75-3]	Nitrogen fluoride sulfide				
	V	(184–268)	23.1	199		[1999DYK/SVO]
F_4OS	[13709-54-1]	Sulfur oxide tetrafluoride				
	V	(166–240)	21.4	181		[1999DYK/SVO]
$F_4O_5S_2$	[44982-62-9]	Disulfur pentoxide tetrafluoride				
	V	(246–353)	18.0	261		[1999DYK/SVO]
F_4S	[7783-60-0]	Sulfur tetrafluoride				
	V	(170–250)	21.1	185		[1999DYK/SVO]
	V	(160–224)	24.6	192		[1955BRO/ROB]
$F_6O_3S_2$	[81439-35-2]	Pentafluorosulfur fluorosulfane				
	V	(228–273)	32.2	250		[1962COH/MAC]
$F_6O_3S_3$	[13693-04-4]	Sulfur fluoride fluorosulfate				
	V	(306–391)	38.9			[1961SHR/CAD]
F_6S	[2551-62-4]	Sulfur hexafluoride				
	SUB		23.2 ± 0.01	186		[1994OHT/YAM]
	SUB	(175–207)	23.3	191		[1932KLE/HEN]
$F_{10}O_2S_2$	[12395-41-4]	Thiosulfuryl decafluoride				
	V	(239–344)	31.8	242		[1999DYK/SVO]
$F_{10}S_2$	[5714-22-7]	Disulfur decafluoride				
	V	(226–322)	30.1	241		[1999DYK/SVO]
	V	(222–273)	29.6	237		[1962COH/MAC]
$F_{14}O_2S_3$	[108021-40-5]	$SF_5OSF_4OSF_5$ (simply called sulfur fluoride oxide)				
	V		33.4			[1963PAS/ROB]
$F_{18}O_4S_4$		$SF_5OSF_4OOSF_4OSF_5$ (simply called sulfur fluoride oxide peroxide)				
	V		47.5			[1963PAS/ROB]
H_2S	[7783-06-4]	Hydrogen sulfide				
	TRS		1.51	103.6		
	TRS		0.45	126.2		
	FUS		2.38	187.6		[1937KRU/CLU]
	SUB	(128–142)	22.5	135	MG	[1951CLA/COC]
	SUB	(164–187)	25.4	175		[1936GIA/BLU]
	V	(185–228)	19.5	200		[1999DYK/SVO]
	V	(228–363)	18.6	243		[1999DYK/SVO]
	V	(187–213)	21.9	200		[1936GIA/BLU]
H_2S_2	[13465-07-1]	Dihydrogen disulfide				
	V	(256–367)	34.0	271		[1999DYK/SVO]
	V		33.8 ± 0.1	293	C	[1958FEH/HIT]
$H_2S_2O_7$	[7783-05-3]	Pyrosulfuric acid				
	FUS		23.81	308.4		[1961DAC/WYA]
H_2S_3	[13845-23-3]	Dihydrogen trisulfide				
	V	(328–474)	43.1	343		[1999DYK/SVO]
	V		45.5 ± 0.2	293	C	[1958FEH/HIT]
H_2S_4	[13845-25-5]	Dihydrogen tetrasulfide				
	V	(384–547)	52.2	399		[1999DYK/SVO]
	V		56.8 ± 0.3	293	C	[1958FEH/HIT]
H_2S_5	[13845-24-4]	Dihydrogen pentasulfide				
	V	(426–592)	61.5	441		[1999DYK/SVO]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		68.4 ± 0.6	293	C	[1958FEH/HIT]
NHS_7	[293-42-5]	Heptasulfur imide				
	FUS		18.83	386.7		[1975HAM/KUD]
SO_2	[7446-09-5]	Sulfur dioxide				
	V	(200–263)	24.9	263		[1938GIA/STE]
	V		24.9	263	C	[1938GIA/STE]
	V		26.8	259	C	[1932GRI/AWB]
	V		25.9	272	C	[1932GRI/AWB]
	V		24.3	282	C	[1932GRI/AWB]
	V		24.3	285	C	[1932GRI/AWB]
	V		23.4	298	C	[1932GRI/AWB]
SO_3	[7446-11-9]	Sulfur trioxide				
	V	(290–318)	46.7	290		[1985KON/STR]
	V	(290–318)	45.5 ± 0.8	298		[1985KON/STR]
	V	(353–473)	32.4	368		[1963ABE/TIL]
SO_3	[7446-11-9]	γ-sulfur trioxide				
	FUS	(16–332)	9.35	290.2	AC	[1989KON/STR]
Sb						
CH_5Sb	[23362-09-6]	Methylstibine				
	V	(223–273)	27.4	248		[1959BUR/GRA]
C_2H_7Sb	[23362-10-9]	Dimethylstibine				
	V	(241–273)	30.8	257		[1959BUR/GRA]
C_2H_8BSb	[60646-39-1]	Dimethylstibinoborine				
	V	(234–273)	32.1	254		[1959BUR/GRA]
$C_3Cl_2F_9Sb$	[420-74-6]	tris(trifluoromethyl)antimony dichloride				
	V	(243–323)	38.8	283		[1957DAL/EME]
C_3F_9Sb	[432-05-3]	tris(trifluoromethyl)stibine				
	V	(215–343)	34.7	279		[1957DAL/EME]
C_3H_9Sb	[594-10-5]	Trimethylstibine				
	V	(249–296)	32.5 ± 0.01	298		[2010FUL/MOR]
	V		32.7			[1955LON/SAC2]
	V		32.6 ± 1.3			[1955LON/SAC, 1982PIL/SKI]
	V		31.2		BG	[1946BAM/LEV]
	V		32.5			[1940ROS/SAN]
$C_4H_{12}Sb_2$	[41422-43-9]	Tetramethylbistibine				
	V	(325–358)	46.9	341		[1959BUR/GRA]
C_6H_9Sb	[5613-68-3]	Trivinylstibine				
	V	(293–363)	38.7	308		[1957MAI/SEY, 1984BOU/FRI]
$C_6H_{15}Sb$	[617-85-6]	Triethylstibine				
	FUS	(60–298)	9.45	153.9		[1996DOM/HEA, 1973MAS/NOV]
	V	(238–309)	47.6	260		[2006FUL/RUZ]
	V	(238–309)	45.6	298		[2006FUL/RUZ]
	V	(238–400)	44.2	320		[2006FUL/RUZ]
	V	(238–400)	41.4	360		[2006FUL/RUZ, 1946BAM/LEV]
	V	(238–400)	38.3	400		[2006FUL/RUZ, 1946BAM/LEV]
	V	(193–333)	39.9 ± 1.3	306		[2001BAE]
	V		43.5 ± 4.2			[1963LAU/TRO, 1982PIL/SKI]
	V	(273–393)	41.8		BG	[1946BAM/LEV]
$C_6H_{15}Sb$	[138260-00-1]	*tert*-butyldimethylantimony				
	SUB	(248–283)	43.5 ± 0.01	266		[2010FUL/MOR]
	V	(288–308)	41.1 ± 0.01	298		[2010FUL/MOR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_6H_{18}NSb$	[7289-92-1]	tris(dimethylamino)antimony				
	V	(263–323)	51.8 ± 0.1	298		[2013MOR/FUL]
$C_{15}H_{30}N_3S_6Sb$	[22914-48-3]	tris(*N*,*N*-diethyldithiocarbamate)antimony(III)				
	SUB		160 ± 2	298		[1994LIE/MAR]
$C_{18}F_{15}Sb$	[3910-39-2]	tris(pentafluorophenyl)antimony				
	FUS		22.4	355.0	DSC	[2008ZEL/CHU]
$C_{18}H_{15}Sb$	[603-36-1]	Triphenylantimony				
	SUB		106.3 ± 8.4	298		[1982PIL/SKI, 1960BIR]
	V	(503–553)	83.3	518	A	[1987STE/MAL, 1949FOR/BOW]
$C_{21}H_{42}N_3S_6Sb$	[226980-30-9]	tris(dipropyldithiocarbamate)antimony(III)				
	SUB		169.5 ± 6.1		DSC,E	[1999NEV/GOU]
$C_{26}H_{25}O_4Sb$	[1305343-65-0]	Triphenylantimony dimethacrylate				
	TRS	(6–335)	0.22	158.0	AC	[2011MAR/LET2]
$C_{27}H_{54}N_3S_6Sb$	[14907-93-8]	tris(*N*,*N*-dibutyldithiocarbamate)antimony(III)				
	SUB		179 ± 3	298		[1994LIE/MAR]
$C_{27}H_{54}N_3S_6Sb$	[41594-79-0]	tris(*N*,*N*-diisobutyldithiocarbamate)antimony(III)				
	SUB		157 ± 3	298	DSC,E	[1997DES/DES]
$C_{34}H_{31}N_2O_2Sb$	[474647-34-2]	Triphenylantimony bis(acetophenoneoximate)				
	FUS		42.0	434.5	DSC	[2011MAR/LET]
$C_{40}H_{45}O_4Sb$	[1168154-05-9]	Triphenylantimony bis(1-adamantanecarboxylate)				
	FUS	(320–520)	47.4	497.9	DSC	[2013LET/MAR]
$SbBr_3$	[7789-61-9]	Tribromostibine				
	V	(399–588)	53.2	560	BG	[1973MAE]
	V	(399–588)	69.7	298	BG	[1973MAE]
	V	(435–561)	54.8 ± 0.8	498		[1963SIM]
$SbCl_3$	[10025-91-9]	Trichlorostibine				
	V	(351–492)	49.0 ± 1.3	422		[1974UST/PET]
	V	(381–491)	47.2	495	BG	[1973MAE]
	V	(381–491)	60.4	298	BG	[1973MAE]
	V	(363–463)	46.7	496		[1967OPP]
$SbCl_5$	[7647-18-9]	Pentachloroantimony				
	V	(329–360)	46.4 ± 0.8	344		[1974UST/PET]
	V	(323–393)	43.4	449		[1967OPP]
SbI_3	[7790-44-5]	Triiodostibine				
	V	(510–629)	66.0 ± 1.7	570		[1963SIM]
Sc						
$C_{15}H_3F_{18}O_6Sc$	[18990-42-6]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentadionato)scandium(III)				
	SUB		113.3		ME,MS	[2012BEL/GIR]
	SUB	(333–363)	55.0		TGA	[2000FAH/BAR]
	SUB	(313–348)	60.2 ± 1.2		I	[1978KOM/GUR]
$C_{15}H_{12}F_9O_6Sc$	[14634-68-5]	tris(1,1,1-trifluoro-2,4-pentanedionato)scandium(III)				
	SUB	(373–403)	78.0		TGA	[2000FAH/BAR]
	SUB	(363–433)	117.6 ± 1.7			[1985MAT/KUW]
	SUB	(366–413)	53.2 ± 1.0		I	[1978KOM/GUR]
	V	(397–457)	82.2 ± 0.8	427		[1978CHU/IGU]
$C_{15}H_{15}Sc$	[1298-54-0]	tris(cyclopentadienyl)scandium				
	SUB		97.1 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
$C_{15}H_{21}O_6Sc$	[14284-94-7]	tris(2,4-pentanedionato)scandium(III)				
	FUS		28.8	460		[1970MEL/MER2]
	SUB		119		ME,MS	[2012BEL/GIR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(379–449)	79 ± 1		TGA,GS	[2009SEL/RAG2]
	SUB	(413–443)	95		TGA	[2000FAH/BAR]
	SUB	(393–453)	58.2 ± 0.8		I	[1978KOM/GUR]
	SUB		99.6 ± 0.8	298	HSA	[1970MEL/MER, 1970MEL/MER2]
$C_{24}H_{30}F_9O_6Sc$	[20146-67-2]	tris(1,1,1-trifluoro-5,5-dimethyl-2,4-hexanedionato)scandium(III)				
	SUB		106		ME,MS	[2012BEL/GIR]
$C_{33}H_{57}O_6Sc$	[15492-49-6]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)scandium(III)				
	SUB	(375–424)	97 ± 1		TG-TS	[2009SEL/RAG]
	SUB	(413–443)	90		TGA	[2000FAH/BAR]
	SUB		79.6 ± 2.4			[1997SAN/ROC]
	V	(434–465)	77 ± 2		TG-TS	[2009SEL/RAG]
Se						
$CBrF_3Se$	[753-95-7]	Trifluoromethylselenyl bromide				
	V	(224–329)	30.9	276		[1980GOM/WEI]
$CClF_3Se$	[1495-26-7]	Trifluoromethylselenyl chloride				
	V	(215–309)	27.6	262		[1980GOM/WEI]
COSe	[1603-84-5]	Carbon oxyselenide				
	V	(221–252)	22.1	236		[1999DYK/SVO]
	V		22.0			[1948GLE/RIS]
	V	(156–251)	21.7	236		[1947STU]
	V		22.1	211		[1937PUR/ZAH]
CSSe	[5951-19-9]	Carbon selenide sulfide				
	V	(226–359)	35.5	241		[1999DYK/SVO]
	V	(273–357)	33.6	288		[1914STO/WIL, 1984BOU/FRI]
CSe_2	[506-80-9]	Carbon diselenide				
	SUB	(218–229)	46.3	224		[1987STE/MAL, 1966GAT/DRA]
	V	(230–290)	39.1	245		[1999DYK/SVO]
	V	(290–337)	35.9	305		[1999DYK/SVO]
	V		37.2 ± 0.8			[1966GAT/DRA, 1982PIL/SKI]
	V	(273–323)	39.0	288		[1947IVE/PIT, 1984BOU/FRI]
CHF_3Se	[55446-31-6]	Trifluoromethaneselenol				
	V	(216–259)	22.5	237		[1980GOM/WEI]
CH_3FO_3Se	[17697-13-1]	Fluoroselenic acid, methyl ester				
	V		46.9			[1967PAE/KUR]
CH_3F_3SeSi	[753-96-8]	Silyl trifluoromethyl selenide				
	V	(213–277)	28.0	245		[1962EBS/EME]
C_2BrF_5Se	[6123-59-7]	(pentafluoroethane)selenyl bromide				
	V	(242–293)	34.5	267		[1999DYK/SVO]
C_2ClF_5Se	[6123-50-8]	(pentafluoroethane) selenyl chloride				
	V	(215–289)	30.3	252		[1999DYK/SVO]
C_2F_3NOSe	[20334-48-9]	Trifluoromethyl selenium isocyanate				
	V	(233–284)	29.5	259		[1968WEL/WUL]
C_2F_3NSSe	[21438-06-2]	Trifluoromethyl selenium thiocyanate				
	V	(233–383)	25.9	258		[1968WEL/WUL]
C_2F_3NSSe	[691-07-6]	Trifluoromethane sulphenyl selenocyanate				
	V	(263–313)	33.3	288		[1963EME/HAA]
C_2F_3NSe	[1717-49-3]	Trifluoromethyl selenocyanate				
	V	(273–355)	37.9	314		[1980GOM/WEI]
	V	(233–273)	37.6	253		[1968WEL/WUL]
$C_2F_3NSe_2$	[20563-91-1]	Trifluoromethyl selenium selenocyanate				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(223–268)	26.6	245		[1968WEL/WUL]
C_2F_6Se	[371-79-9]	bis(trifluoromethyl)selenide				
	V	(212–270)	24.4	241		[1980GOM/WEI]
$C_2F_6Se_2$	[372-65-6]	bis(difluoromethyl) diselenide				
	V	(254–345)	33.1	300		[1980GOM/WEI]
C_2HF_3OSe	[1252610-13-1]	Trifluoroselenoacetic acid				
	V	(220–268)	31.5	248		[2010GOM/ROM]
$C_2H_3F_3Se$	[1544-45-2]	Methyl(trifluoromethyl)selenide				
	V	(209–294)	27.7	251		[1999DYK/SVO, 1963EME/WEL]
C_2H_6Se	[593-79-3]	Dimethyl selenide				
	FUS		8.5	185.1		[1991RAB/SHE]
	V	(273–331)	30.7 ± 0.2			[2012GER/PAV]
	V		30.7 ± 0.4	298	C	[2012GER/PAV]
	V	(280–318)	30.3 ± 0.1	295		[1999DYK/SVO, 1997BAE]
	V	(278–313)	31.9	295	I	[1994KAR/FRA]
	V	(280–313)	30.8	296		[1956GRA/STO]
$C_2H_6Se_2$	[7101-31-7]	Dimethyl diselenide				
	FUS		8.55	190.8		[1991RAB/SHE]
	V	(288–313)	74.9	300	I	[1994KAR/FRA]
	V		42.0 ± 1.0	298	C	[1989VOR/KLY]
C_3AsF_9Se	[816-45-5]	bis(trifluoromethyl) trifluoromethylselenoarsine				
	V	(227–295)	34.8	261		[1962EME/PAC]
C_3BrF_7Se	[662-44-2]	(Heptafluoro-1-propane) selenyl bromide				
	V	(251–298)	35	274		[1999DYK/SVO, 1963EME/WEL]
C_3ClF_7Se	[662-46-4]	(Heptafluoro-1-propane) selenyl chloride				
	V	(223–289)	35.4	256		[1999DYK/SVO, 1963EME/WEL]
C_3F_5NSe	[20334-51-4]	Pentafluoroethyl selenocyanate				
	V	(254–293)	32.0	273		[1968WEL/WUL]
$C_3H_2F_6Se_2$	[691-25-8]	bis[(trifluoromethyl)seleno]methane				
	V	(273–359)	35.4	315		[1999DYK/SVO, 1963EME/WEL]
$C_3H_3F_5Se$	[6123-56-4]	Methyl pentafluoroethyl selenide				
	V	(234–286)	31.9	260		[1999DYK/SVO]
$C_3H_3F_7SeSi$	[1647-59-2]	(heptafluoropropyl)selenyl silane				
	V	(233–393)	33.1	263		[1999DYK/SVO, 1962EBS/EME]
$C_3H_4F_5NSe$	[6123-53-1]	(pentafluoroethyl)seleno methylamine				
	V	(243–318)	33.8	280		[1999DYK/SVO]
C_3H_5FOSe	[367-52-2]	Fluoroselenoacetic acid, Se-methyl ester				
	V	(273–333)	46.3	303		[1999DYK/SVO]
$C_3H_5F_3Se$	[690-25-5]	Ethyl(trifluoromethyl)selenide				
	V	(223–254)	31.6	238		[1999DYK/SVO, 1963EME/WEL]
$C_3H_6F_3NSe$	[690-32-4]	*N*,*N* dimethyl(trifluoromethyl)selenenamide				
	V	(231–321)	28.1	276		[1963EME/WEL]
$C_4F_{10}Se$	[6123-61-1]	bis(pentafluoroethyl)selenide				
	V	(232–295)	31.6	263		[1999DYK/SVO]
$C_4F_{10}Se_2$	[6123-49-5]	bis(pentafluoroethyl) diselenide				
	V	(272–318)	40.0	295		[1999DYK/SVO]
$C_4HF_{10}NSe_2$	[6123-55-3]	bis[(pentafluoroethyl)seleno]amine				
	V	(270–322)	38.3	296		[1999DYK/SVO]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_4H_3F_7Se$	[662-45-3]	Methyl(heptafluoropropyl) selenide				
	V	(232–324)	30.8	278		[1999DYK/SVO, 1963EME/WEL]
$C_4H_4N_2O_2Se$	[92754-59-1]	Selenobarbituric acid				
	SUB	(449–486)	141 ± 4.0	466	TE	[1999BRU/PIA]
C_4H_4Se	[288-05-1]	Selenophene				
	SUB	(208–243)	47.1	225		[1951MIL/PAO]
	V	(234–300)	40.8	272		[1999DYK/SVO]
	V		38.1 ± 0.7	298	C	[1989VOR/KLY]
	V	(234–387)	34.0	249		[1947STU]
$C_4H_5F_5Se$	[6123-57-5]	Ethyl(pentafluoroethyl) selenide				
	V	(241–311)	34.8	276		[1999DYK/SVO]
$C_4H_6F_5NSe$	[6123-52-0]	1,1,2,2,2-pentafluoro-*N*,*N*-dimethylethane selenamide				
	V	(256–320)	34.8	288		[1999DYK/SVO]
C_4H_6Se	[57796-75-5]	Divinyl selenide				
	V		42.0 ± 1.0	298	C	[1989VOR/KLY]
C_4H_8OSe	[5368-46-7]	1,4-oxaselenane				
	V	(352–429)	46.6	367		[1999DYK/SVO, 1931JOH]
$C_4H_{10}Se$	[627-53-2]	Diethyl selenide				
	V	(273–368)	37.1 ± 1.4	321	T	[2014GER/PAV]
	V		38.7 ± 0.6	298	C	
	V	(243–381)	39.7	258		[1999DYK/SVO]
	V		38.9 ± 1.0	298	C	[1989VOR/KLY]
	V		38.9 ± 4.2			[1936MER/SCH, 1982PIL/SKI]
	V	(298–308)	36.8	303		[1929TAN/NAG]
$C_4H_{10}Se_2$	[628-39-7]	Diethyl diselenide				
	V	47.1 ± 0.9		298	C	[1989VOR/KLY]
$C_5AsF_{13}Se$	[679-01-6]	Heptafluoropropylseleno bis(trifluoromethyl)arsine				
	V	(277–348)	40.3	312		[1962EME/PAC]
$C_5H_3F_{10}NSe_2$	[6123-54-2]	*N*,*N*-bis[(pentafluoroethyl)seleno]methylamine				
	V	(282–324)	38.3	303		[1999DYK/SVO]
$C_5H_5F_7Se$	[755-44-2]	Ethyl(heptafluoropropyl) selenide				
	V	(243–333)	36.0	288		[1999DYK/SVO, 1963EME/WEL]
$C_5H_6F_7NSe$	[755-79-3]	*N*,*N* dimethyl(heptafluoropropyl)selenenamide				
	V	(228–321)	30.8	274		[1963EME/WEL]
$C_6F_{14}Se$	[755-81-7]	bis(heptafluoropropyl) selenide				
	V	(228–343)	34.5	286		[1999DYK/SVO, 1963EME/WEL]
$C_6F_{14}Se_2$	[755-51-1]	bis(heptafluoropropyl) diselenide				
	V	(260–348)	37.7	304		[1999DYK/SVO, 1963EME/WEL]
C_6H_6Se	[645-96-5]	Benzene selenol				
	V	(331–458)	45.4	395		[1999DYK/SVO]
$C_6H_{14}Se$	[37773-02-7]	Diisopropyl selenide				
	V		43.1 ± 1.0	298	C	[1989VOR/KLY]
C_7H_8Se	[4346-64-9]	Methyl phenyl selenide				
	V	(273–291)	52.5	282		[1999DYK/SVO]
$C_8H_6N_2Se$	[25660-64-4]	4-phenyl-1,2,3-selenadiazole				
	SUB	(275–343)	91.2 ± 1.7	309	ME	[1974ARS]
	SUB		94.1 ± 0.8	298	GS	[1973ARS/SHA]
	SUB	(327–345)	90.7	336		[1987STE/MAL]
$C_8H_{18}Se$	[14835-66-6]	Dibutyl selenide				
	V		47.3 ± 1.0	298	C	[1989VOR/KLY]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{10}H_{22}Se$	[14835-67-7]	Dipentyl selenide				
	V		51.9 ± 1.0	298	C	[1989VOR/KLY]
$C_{12}H_{10}Se$	[1132-39-4]	Diphenyl selenide				
	SUB	(302–324)	116.7 ± 2.5	313	ME	[1980MOR/WAT]
	V	(379–575)	63.4	394		[1999DYK/SVO]
	V	(378–575)	61.9	393	A	[1987STE/MAL]
	V		63.6 ± 2.5			[1973BAR/MOR, 1982PIL/SKI]
$C_{14}H_{10}Cl_2N_4O_2Se$	[1000863-66-0]	N,*N*′-bis[(2-chloro-3-pyridinyl)carbonyl]carbamimidoselenoic acid, methyl ester				
	FUS		17.64	460	DSC	[2009PLA/LIZ]
$C_{14}H_{12}N_4O_2Se$		*N*,*N*′-bis[(3-pyridinyl)carbonyl]carbamimidoselenoic acid, methyl ester				
	FUS		12.85	431.5	DSC	[2009PLA/LIZ]
$C_{14}H_{14}Se_2$	[1482-82-2]	Dibenzyl diselenide				
	SUB	(291–330)	130.5		ME	[1974ARS, 1973ARS/SHA]
$C_{16}H_{12}Cl_2N_2O_2Se$	[1000863-72-8]	*N*,*N*′-bis(4-chlorobenzoyl)carbamimidoselenoic acid, methyl ester				
	FUS		16.23	467.6	DSC	[2009PLA/LIZ]
$C_{16}H_{14}N_2O_2Se$	[1000863-67-1]	*N*, *N*′-dibenzoylcarbamimidoselenoic acid, methyl ester				
	FUS		10.56	412.7	DSC	[2009PLA/LIZ]
$C_{17}H_{16}N_2O_2Se$	[1000863-68-2]	*N*, *N*′-dibenzoylcarbamimidoselenoic acid,ethyl ester				
	FUS		10.38	379.1	DSC	[2009PLA/LIZ]
$C_{18}H_{12}F_6N_4O_2Se$	[1000863-75-1]	*N*, *N*′-bis[4-(trifluoromethyl)benzoyl]carbamimidoselenoic acid, methyl ester				
	FUS		14.77	446.1	DSC	[2009PLA/LIZ]
$C_{18}H_{12}N_4O_2Se$	[1000863-76-2]	*N*, *N*′-bis(4-cyanobenzoyl)carbamimidoselenoic acid, methyl ester				
	FUS		17.55	492.1	DSC	[2009PLA/LIZ]
$C_{18}H_{16}Cl_2N_2O_2Se$	[1000863-73-9]	*N*, *N*′-bis(4-chlorobenzoyl)carbamimidoselenoic acid, 1-methylethyl ester				
	FUS		13.97	437.8	DSC	[2009PLA/LIZ]
$C_{18}H_{18}N_2O_2Se$	[1000863-69-3]	*N*, *N*′-dibenzoylcarbamimidoselenoic acid, 1-methylethyl ester				
	FUS		8.04	380.2	DSC	[2009PLA/LIZ]
$C_{18}H_{18}N_2O_2Se$	[1000863-78-4]	*N*, *N*′-bis(4-methylbenzoyl)carbamimidoselenoic acid, methyl ester				
	FUS		12.21	421.7	DSC	[2009PLA/LIZ]
$C_{20}H_{22}N_2O_6Se$	[1000863-70-6]	*N*, *N*′-bis(3,5-dimethoxybenzoyl)carbamimidoselenoic acid, methyl ester				
	FUS		18.43	436.8	DSC	[2009PLA/LIZ]
$C_{22}H_{16}Br_2N_2Se_2$	[1448890-32-1]	1,4-bis[[(4-bromophenyl)methyl]seleno]phthalazine				
	FUS		16.9	379.0	DSC	[2013JIM/PLA]
$C_{22}H_{16}N_4O_4Se_2$	[1448890-33-2]	1,4-bis[[(4-nitrophenyl)methyl]seleno]phthalazine				
	FUS		U3.07	420.0	DSC	[2013JIM/PLA]
$C_{22}H_{18}N_2S2Se_2$	[1448890-51-4]	4,4′-[1,4-phthalazinediylbis(thiomethylene)]bis(benzeneselenol)				
	FUS		U7.56	395.6	DSC	[2013JIM/PLA]
$C_{22}H_{20}N_4Se_2$	[1448890-43-4]	4,4′-[1,4-phthalazinediylbis(iminomethylene)]bis(benzeneselenol)				
	FUS		U4.83	392.3	DSC	[2013JIM/PLA]
$C_{22}H_{26}N_2O_6Se$	[1000863-71-7]	*N*, *N*′-bis(3,5-dimethoxybenzoyl)carbamimidoselenoic acid, 1-methyl ethyl ester				
	FUS		19.34	426.9	DSC	[2009PLA/LIZ]
$C_{24}H_{16}F_6N_2Se_2$	[1448890-30-9]	1,4-bis[[[4-(trifluoromethyl)phenyl]methyl]seleno]phthalazine				
	FUS		28.52	391.9	DSC	[2013JIM/PLA]
$C_{24}H_{16}N_4S_2Se_2$	[1448890-53-6]	Selenocyanic acid, *CC*′-[1,4-phthalazinediylbis(thiomethylene-4,1-phenylene)] ester				
	FUS		13.11	408.1	DSC	[2013JIM/PLA]
$C_{24}H_{16}N_4Se_2$	[1448890-34-3]	4,4′-[1,4-phthalazinediylbis(selenomethylene)]bis(benzonitrile)				
	FUS		18.97	461.1	DSC	[2013JIM/PLA]
$C_{24}H_{18}N_6Se_2$	[1448890-42-3]	Selenocyanic acid, *C*,*C*′-[1,4-phthalazinediylbis(iminomethylene-4,1-phenylene')] ester				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		10.31	427.8	DSC	[2013JIM/PLA]
$C_{24}H_{22}N_2O_2Se_2$	[1448890-28-5]	1,4-bis[[(4-methoxyphenyl)methyl]seleno]phthalazine				
	FUS		26.58	387.0	DSC	[2013JIM/PLA]
$C_{24}H_{22}N_2S_2Se_2$	[1448890-52-5]	1,4-bis[[[4-(methylseleno)phenyl]methyl]thio]phthalazine				
	FUS		10.03	382.2	DSC	[2013JIM/PLA]
$C_{24}H_{22}N_2Se_2$	[1448890-31-0]	1,4-bis[[(4-methylphenyl)methyl]seleno]phthalazine				
	FUS		28.14	397.7	DSC	[2013JIM/PLA]
$C_{24}H_{30}N_2O_2Se$	[1000863-79-5]	*N*, *N′*-bis[4-(1,1-dimethylethyl)benzoyl]carbamimidoselenoic acid, methyl ester				
	FUS		13.04	437.5	DSC	[2009PLA/LIZ]
$C_{28}H_{38}N_2O_2Se$	[1396294-64-6]	2-[4-(butylseleno)phenyl]-5-[4-(decyloxy)phenyl]-1,3,4-oxadiazole				
	FUS		37.6	356.9	DSC	[2012FRI/RAM]
$C_{30}H_{22}N_4S_4Se_2$	[1448890-35-4]	4,4′-[dithiobis(4,1-phthalazinediylthiomethylene)]bis(benzeneselenol)				
	FUS		40.51	471.0	DSC	[2013JIM/PLA]
$C_{32}H_{26}N_4S_4Se_2$	[1448890-36-5]	1,1′-dithiobis[4-[[[4-(methylseleno)phenyl]methyl]thio]phthalazine				
	FUS		25.07	399.2	DSC	[2013JIM/PLA]
$C_{35}H_{52}O_2Se$	[1714083-30-3]	cholest-5-en-3-ol (3β),3-[2-(phenylseleno)acetate]				
	FUS		26.4	371.2	DSC	[2015FRI/RAF]
$C_{36}H_{54}N_2O_2Se$	[1396294-61-3]	3-[4-(decyloxy)phenyl]-5-[4-(dodecylseleno)phenyl]-1,2,4-oxadiazole				
	FUS		30.6	346.6	DSC	[2012FRI/RAM]
$C_{36}H_{54}O_2Se$	[1714083-31-4]	Cholest-5-en-3-ol (3β), 3-[3-(phenylseleno)propanoate]				
	FUS		16.5	320.3	DSC	[2015FRI/RAF]
$C_{58}H_{94}O_4Se_2$	[1714083-33-6]	Cholest-5-en-3-ol (3β), 3,3′-(2,2′ diselenodiacetate]				
	FUS		18.0	433.9	DSC	[2015FRI/RAF]
Cl_2OSe	[7791-23-3]	Selenium oxychloride				
	V	(352–476)	59.1	367		[1999DYK/SVO]
	V	(353–453)	46.9	403		[1971NIS/TRE]
D_2Se	[13536-95-3]	Hydrogen selenide – d_2				
	TRS		1.94	90.5		
	TRS		1.18	176.0		
	FUS		2.49	206.6		[1937KRU/CLU]
	V	(202–256)	22.2	217		[1999DYK/SVO]
F_2OSe	[7783-43-9]	Seleninyl difluoride				
	FUS		8.08	288		[1979CAR/CLA, 1977BOU/CAR]
	V	(316–420)	52.1	331		[1999DYK/SVO]
	V		46.9 ± 0.8	298	C	[1979CAR/CLA]
	V		46.7			[1977BOU/CAR]
F_4Se	[13465-66-2]	Selenium tetrafluoride				
	V	(297–398)	46.4	312		[1999DYK/SVO]
F_6Se	[7783-79-1]	Selenium hexafluoride				
	SUB		24.96 ± 0.04	205	C	[1996OHT/OSA]
	SUB	(194–226)	23.5	210		[1932KLE/HEN]
F_6O_2Se	[27069-91-6]	*trans* bis(fluoroxy) tetrafluoroselenium				
	V	(241–286)	26.5	263		[1970SMI/CAD]
H_2Se	[7783-07-5]	Hydrogen selenide				
	TRS		1.57	82.3		
	TRS		1.12	172.5		
	FUS		2.52	207.4		[1937KRU/CLU]
	V	(231–304)	19.8			[1902DEF/FON]
Si						

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
CH_2Cl_4OSi	[18157-08-9]	Chloromethoxytrichlorosilane				
	V	(273–323)	9.3	288		[1958FRO/ROC]
CH_3Cl_2FSi	[420-58-6]	Methyldichlorofluorosilane				
	V		28.2			[1946BOO/MAR]
CH_3Cl_3Si	[75-79-6]	Methyltrichlorosilane				
	FUS		8.95	197.4		[1996DOM/HEA, 1971SAM/KOS]
	V	(328–358)	30.7	343		[1967GOL/LAP]
	V	(287–337)	31.2	302	I	[1954JEN/CHA]
	V		31.0 ± 2.1			[1969AGA/HAJ, 1982PIL/SKI]
	V		30.3			[1946BOO/MAR]
(CH_3Cl_3Si)-$2(C_6H_{15}N_3)$	SUB	bis-1,3,5-trimethyl-1,3,5-triazacyclohexane–methyltrichlorosilane (298–354)	74.0 ± 2.8			[1984GOL/LEV]
CH_3F_3Si	[373-74-0]	Methyltrifluorosilane				
	V		23.7			[1946BOO/MAR]
CH_3NSi	[18081-38-4]	Isocyanosilane				
	SUB	(253–304)	48.8	279		[1987STE/MAL, 1956MAC]
CH_3NOSi	[13730-13-7]	Silyl isocyanate				
	V		27.3			[1962EBS/MAY]
CH_4Cl_2Si	[42430-97-7]	(dichloromethyl)silane				
	V	(283–319)	32.5	301		[1957KAE/STO]
CH_4Cl_2Si	[75-54-7]	Methyldichlorosilane				
	V	(275–314)	28.3	290	I	[1954JEN/CHA]
CH_5BrSi	[1631-88-5]	Methylbromosilane				
	V	(283–295)	28.5	289		[1958EBS/EME]
CH_5ClSi	[10112-09-1]	(chloromethyl)silane				
	V	(246–297)	27.5	271		[1957KAE/STO]
CH_6OSi	[2171-96-2]	Methoxysilane				
	V	(184–216)	25.8	201		[1961STE/MAC]
CH_6Si	[992-94-9]	Methylsilane				
	V	(159–215)	18.4	215		[1953TAN/KAY]
CH_8Si_2	[13498-43-6]	Methyldisilane				
	V	(190–273)	26.8	231	T	[1966ABE/MAC]
CH_9NSi_2	[4459-06-7]	*N*-methylsilane				
	V	(200–291)	28.3			[1939EME/MIL]
$C_2H_3Cl_3O_2Si$	[18038-52-3]	Trichlorosilanol acetate				
	V	(273–359)	32.8			[1953GOU/MUN]
$C_2H_3Cl_3Si$	[75-94-5]	Trichlorovinylsilane				
	V	(291–356)	34.2	306	I	[1954JEN/CHA]
$C_2H_3Cl_5Si$	[684-00-4]	1,2-dichloroethyltrichlorosilane				
	V	(375–453)	45.7	390	I	[1954JEN/CHA]
$C_2H_4Cl_6Si_2$	[2504-64-5]	bis(trichlorosilyl)ethane				
	V	(364–432)	48.6	379	I	[1954JEN/CHA]
C_2H_4Si	[1066-27-9]	Silylacetylene				
	V	(215–251)	22.0	233		[1963EBS/FRA]
$C_2H_5ClF_2Si$	[421-23-8]	Chloroethyldifluorosilane				
	V	(235–298)	28.2	266		[1946BOO/CAR]
$C_2H_5Cl_2FSi$	[421-22-7]	Dichloroethylfluorosilane				
	V	(248–333)	30.8	290		[1946BOO/CAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_2H_5Cl_3Si$	[115-21-9]	Ethyltrichlorosilane				
	FUS	(13–300)	6.96	165.3		[1996DOM/HEA, 1969NAG/DZH]
	V	(303–363)	35.1	318		[1970SOK/KAR]
	V	(301–368)	35.9	316	I	[1954JEN/CHA]
	V	(263–373)	32.2	318		[1946BOO/CAR]
$C_2H_5F_3Si$	[353-89-9]	Ethyltrifluorosilane				
	V	(193–268)	25.6	230		[1946BOO/CAR]
	V	(201–268)	25.9			[1944EME/WIL]
$C_2H_5F_3OSi$	[460-55-9]	Ethoxy trifluorosilane				
	V	(206–248)	26.8	227		[1949EME/HEA]
$C_2H_3F_3O_2Si$	[6876-44-4]	Silyl trifluoroacetate				
	V	(273–293)	30.7	283		[1987STE/MAL, 1967EBS/THO]
C_2H_6ClFSi	[420-57-5]	Chlorofluorodimethylsilane				
	V		28.4			[1946BOO/SUT]
$C_2H_6Cl_2Si$	[75-78-5]	Dichlorodimethylsilane				
	FUS		8.83	199		[1996DOM/HEA, 1971SAM/KOS]
	V	(301–345)	31.5	316	I	[1954JEN/CHA]
	V		31.5			[1946BOO/SUT]
$C_2H_6Cl_2Si$	[1789-58-8]	Dichloroethylsilane				
	V	(279–346)	31.5	294	I	[1954JEN/CHA]
	V	(301–345)	31.6	316		[1954JEN/CHA, 1987STE/MAL]
$C_2H_6Cl_4Si_2$	[4518-98-3]	1,1,2,2-tetrachloro-1,2-dimethyldisilane				
	V	(300–375)	42.4	337		[1967REE/URR]
$C_2H_6F_2Si$	[353-66-2]	Difluorodimethylsilane				
	V		25.8			[1946BOO/SUT]
$C_2H_6F_3NSi$	[812-14-6]	1,1,1-trifluoro-*N*, *N*-dimethylaminosilane				
	V	(225–288)	28.5	273		[1961GRO/KLE]
C_2H_6Si	[7291-09-0]	Vinylsilane				
	V	(186–250)	21.4	250		[1953TAN/KAY]
C_2H_7ISi	[2441-21-6]	Dimethyliodosilane				
	V	(273–323)	28.3	298		[1958EME/SMY]
C_2H_8Si	[1111-74-6]	Dimethylsilane				
	V	(187–251)	21.3	253		[1953TAN/KAY]
C_2H_8Si	[2814-79-1]	Ethylsilane				
	V	(198–257)	22.3	260		[1953TAN/KAY]
C_2H_9NSi	[2875-98-1]	Dimethylaminosilane				
	SUB	(228–264)	58.8	246	A	[1987STE/MAL, 1954SUJ/WIT]
$C_2H_{10}Si_2$	[870-26-8]	1,2-dimethyldisilane				
	V	(227–273)	25.4	258		[1962CRA/MAC]
$C_2H_{11}NSi_2$	[14396-26-0]	*N*,*N* dimethyldisilanylamine				
	V	(207–273)	35.4	240	T	[1963ABE/MAC]
$C_3H_4Cl_3NSi$	[2621-01-4]	Trichloro-β-cyanoethylsilane				
	V	(343–443)	53.5	358		[1978SHM/SHL]
$C_3H_4Cl_3NSi$	[1071-22-3]	β-trichlorosilylpropionitrile				
	FUS		21.24	307.9		[1975KOS/SAM]
$C_3H_5Cl_3Si$	[107-37-9]	Allyltrichlorosilane				
	V	(319–388)	40.1	333	I	[1954JEN/CHA]
$C_3H_6Cl_4Si$	[2550-06-3]	γ-chloropropyltrichlorsilane				
	V	(313–443)	49.7	328		[1972SOK/BRA]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(360–452)	46.4	375	I	[1954JEN/CHA]
$C_3H_6Cl_4Si$		β-chloropropyltrichlorisilane				
	V	(313–443)	46.9	328		[1972SOK/BRA]
$C_3H_7Cl_3Si$	[141-57-1]	Propyltrichlorosilane				
	V	(293–395)	36.4			[1946BOO/HAL]
$C_3H_7F_3Si$	[460-48-0]	Propyltrifluorosilane				
	V	(248–298)	27.0			[1946BOO/HAL]
$C_3H_8Cl_2OSi$	[1825-75-8]	Dichloroethoxymethylsilane				
	V	(313–373)	45.4	328	EB	[2010DON/WU]
	V	(239–373)	38.0	254		[1947STU]
C_3H_9BrSi	[2857-97-8]	Bromotrimethylsilane				
	V		32.6 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]
C_3H_9ClSi	[75-77-4]	Chlorotrimethylsilane				
	TRS		0.7	185.1		
	FUS		9.68	218		[1996DOM/HEA, 1971SAM/KOS2]
	V	(274–325)	30.8	289		[1964CAP/FRI]
	V	(276–329)	30.2	291		[1954JEN/CHA]
	V		30.1 ± 1.7			[1967BAL/LAP, 1982PIL/SKI]
	V		30.2			[1946BOO/SUT]
C_3H_9FSi	[420-56-4]	Fluorotrimethylsilane				
	V		26.9			[1946BOO/SUT]
$C_3H_9N_3Si$	[4648-54-8]	Trimethylsilyl azide				
	V	(243–302)	36.7	273		[1962CON/URR]
$C_3H_{10}OSi$	[1066-40-6]	Trimethylsilanol				
	V	(291–357)	46.8	306	A	[1987STE/MAL]
	V		45.6 ± 1.7			[1969AGA/HAJ, 1982PIL/SKI]
	V	(291–358)	44.2	324	I	[1953GRU/OST]
$C_3H_{10}Si$	[993-07-7]	Trimethylsilane				
	V	(205–273)	24.4	280		[1953TAN/KAY]
$C_3H_{11}NSi$	[74897-01-1]	*N*,*N* dimethyl(methylsilyl)amine				
	V	(273–317)	28.2	296		[1958EBS/EME]
$C_3H_{13}NSi_2$	[18145-61-4]	*N*-methyldi(methylsilyl)amine				
	V	(303–351)	32.2	327		[1958EBS/EME]
$C_3H_{15}NSi_3$	[18145-64-7]	Tri(methylsilyl)amine				
	V	(323–378)	33.7	350		[1958EBS/EME]
$C_4N_4O_4Si$	[3410-77-3]	Tetraisocyanatosilane				
	V		54.0			[1948FOR/AND]
$C_4H_2Cl_6SSi_2$	[18145-50-1]	2,5-bis(trichlorosilyl)thiophene				
	V	(374–519)	55.6	388		[1981DIT/SKO]
$C_4H_8Cl_2Si$	[10138-21-3]	Dichloroethylvinylsilane				
	V	(318–395)	38.1	333	I	[1954JEN/CHA]
$C_4H_9ClF_2Si$	[10132-56-6]	Butylchlorodifluorosilane				
	V	(273–361)	33.6	317		[1946BOO/SCH]
$C_4H_9Cl_2FSi$	[10132-55-5]	Butyldichlorofluorosilane				
	V	(315–390)	35.9	352		[1946BOO/SCH]
$C_4H_9Cl_3Si$	[5936-98-1]	(trichloromethyl)trimethylsilane				
	TRS		11.16	285.3		
	FUS		7.36	405.3	DTA,DSC	[1994BRA/DOU]
$C_4H_9Cl_3Si$	[7521-80-4]	Butytrichlorosilane				
	V	(343–423)	39.7	383		[1946BOO/SCH]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_4H_9Cl_3Si$	[18171-74-9]	*tert*-butyltrichlorosilane				
	TRS		6.01	206.4		
	FUS		6.69	373.4	DTA,DSC	[1994BRA/DOU]
$C_4H_9F_3Si$	[371-93-7]	Butytrifluorosilane				
	V	(243–328)	31.1	285		[1946BOO/SCH]
$C_4H_9F_6NSi_2$	[28245-41-2]	1,1,1-trifluoro-*N*-(1-methylpropyl)-*N*-(trifluorosilyl)silanamine				
	V	(193–233)	25.8	213		[1973BEC/RUC]
$C_4H_{10}Cl_2Si$	[1719-53-5]	Dichlorodiethylsilane				
	V	(321–401)	39.2	336	I	[1954JEN/CHA]
$C_4H_{10}F_2Si$	[358-06-5]	Diethyldifluorosilane				
	V	(244–334)	31.9			[1944EME/WIL]
$C_4H_{10}F_3NSi$	[28245-37-6]	(*N*,*N*-diethylamino)trifluorosilane				
	V	(208–274)	27.4	241		[1974DIT/SKO3]
$C_4H_{10}F_3NSi$	[28245-40-1]	(*N*-*tert*-butylamino)trifluorosilane				
	V	(208–250)	33.6	229		[1973AYL/ELL]
$C_4H_{10}Si$	[765-33-3]	1-methylsilacy clobutane				
	V		25.1	298	C	[1991VOR/KLY3]
$C_4H_{12}Cl_2OSi_2$	[2401-73-2]	1,3-dichlorotetramethyldisiloxane				
	V	(303–403)	40.3	318		[1971SOK/KAR]
$C_4H_{12}O_3Si$	[1185-55-3]	Methyltrimethoxysilane				
	V		34.3 ± 0.6	298	C	[1988VOR/BAR]
	V		34.3 ± 0.3	298	EB	[1985KLY/DAN]
$C_4H_{12}O_4Si$	[681-84-5]	Tetramethoxysilane				
	V	(364–393)	38.0	379	EB	[1989KAT/TAN]
	V		41.4 ± 0.7	298	C	[1988VOR/BAR]
	V		41.4 ± 0.2	298	EB	[1985KLY/DAN]
	V	(309–394)	41.0	324		[1980THO/SMI]
$C_4H_{12}Si$	[75-76-3]	Tetramethylsilane				
	FUS (I)		6.87	174.1		
	FUS (II)		5.88	171.0		
	FUS (III)		0.70	165.9	DTA	[1977HAR/ATA]
	FUS (I)		6.74	174.0		
	FUS (II)		5.84	171.0		[1996DOM/HEA, 1973SHI/ENO]
	FUS (I)		6.9	174.1		
	FUS (II)		5.97	171.0		[1996DOM/HEA, 1941AST/KEN]
	V		26.0 ± 0.6	298	C	[1988VOR/BAR]
	V		26.2 ± 0.4			[1972PED/ISE, 1982PIL/SKI]
	V	(218–295)	26.2	299		[1953TAN/KAY]
	V		24.2 ± 0.1	299	C	[1941AST/KEN]
$C_4H_{12}Si$	[542-91-6]	Diethylsilane				
	V		30.0 ± 0.4			[1972PED/ISE, 1982PIL/SKI]
	V	(241–295)	30.0	329		[1953TAN/KAY]
$C_4H_{12}Si$	[1600-29-9]	Butylsilane				
	V	(240–284)	30.8	329		[1953TAN/KAY]
$C_4H_{12}Si$	[18165-87-2]	Isobutylsilane				
	V	(233–393)	29.5	322		[1953TAN/KAY]
$C_4H_{12}S_4Si$	[3931-76-8]	Tetra(methylthia)silane				
	TRS		11.63	288.6		
	FUS		2.18	304.5	DSC	[1998FUE/STR]
$C_4H_{13}NSi$	[16513-17-0]	*N*,1,1,1-tetramethylsilanamine				
	V		37.4 ± 0.8	298	C	[1991VOR/KLY]
	V		36.0 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_4H_{14}N_2Si$	[4693-04-3]	bis(dimethylamino)silane				
	V	(288–344)	32.4	316	T	[1964AYL/PET]
$C_4H_{14}N_2Si$	[18148-26-0]	bis(aminomethyl)dimethylsilane				
	V	(293–413)	39.3			[1962GOU/FRO]
$C_4H_{14}OSi$	[3277-26-7]	1,1,3,3-tetramethyldisiloxane				
	V	(273–323)	30.3	298		[1958EME/SMY]
$C_4H_{14}SSi_2$	[16642-70-9]	1,1,3,3-tetramethyldisilthiane				
	V	(273–323)	28.7	298		[1958EME/SMY]
$C_4H_{16}N_2Si_2$	[18148-05-5]	*N*, *N*, *N′*,*N′*-tetramethyldisilanyldiamine				
	V	(311–354)	39.3	332	T	[1963ABE/MAC]
$C_4H_{16}O_4Si_4$	[2370-88-9]	2,4,6,8-tetramethylcyclotetrasiloxane				
	V		41.2		EB	[2012YUE/DON]
$C_5H_5N_3O_4Si$	[18243-45-3]	Ethoxytriisocyanatosilane				
	V		48.1			[1948FOR/AND]
$C_5H_6Cl_2SSi$	[18243-72-6]	2-(methyldichlorosilyl)thiophene				
	V	(341–467)	46.4	356		[1981DIT/SKO]
$C_5H_9F_6NOSSi$	[34556-30-4]	*S*, *S*-bis(trifluoromethyl)-*N*-(trimethylsilyl)sulfoximine				
	V		33.5	378	I	[1972SAU/SHR]
$C_5H_9F_6PSSi$	[38680-96-5]	bis(trifluoromethyl)(trimethylsilylthio)phosphine				
	V	(273–328)	46.6	301		[1973GOS/MIL]
$C_5H_{10}F_3NSi$	[33552-49-7]	1-(trifluorosilyl)piperidine				
	V	(250–282)	33.9	266		[1973AYL/ELL]
$C_5H_{12}Si$		1,2-dimethylsilacyclobutane				
	V		33.1	298	C	[1991VOR/KLY3]
The authors list the compound as 1,2-dimethylsilacyclobutane in Table 1 and as 1,1-dimethylsilacyclobutane in Table 2 of their paper.						
$C_5H_{12}Si$	[2295-12-7]	1,1-dimethylsilacyclobutane				
	FUS		6.76	155.5		[1975GUS/KAR]
	V		32.1	356		[1975GUS/KAR]
	V		33.0 ± 0.8	298	I	[1974BES/MAR]
	V		34.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_5H_{12}Si$	[754-05-2]	Vinyltrimethylsilane				
	FUS		7.66	141.7		[1996DOM/HEA, 1975RAB/LEB]
	V		33.1 ± 0.6	298	C	[1988VOR/BAR]
$C_5H_{13}NSi$	[2116-90-7]	Trimethylsilylethyleneimine				
	FUS		10.5	192.5		[1999KUL/LEB]
$C_5H_{14}OSi$	[1825-62-3]	Ethoxytrimethylsilane				
	V		38.4 ± 0.6	298	C	[1988VOR/BAR]
	V		38.4 ± 0.3	298	EB	[1985KLY/DAN]
	V	(223–349)	35.1	238		[1947STU]
$C_5H_{14}O_3SSi$	[57557-66-1]	Trimethoxy[(methylthio)methyl]silane				
	V		40.2 ± 0.6	298	C	[1989VOR/SOR]
$C_5H_{14}O_3Si$	[5314-55-6]	Ethyl(trimethoxy)silane				
	V	(306–397)	43.6	316	EB	[2010WU/LIU]
	V	(306–397)	43.0	339	EB	[2010WU/LIU]
	V	(306–397)	40.9	360	EB	[2010WU/LIU]
	V	(306–397)	39.3	371	EB	[2010WU/LIU]
	V	(306–397)	37.4	380	EB	[2010WU/LIU]
	V	(306–397)	35.5	390	EB	[2010WU/LIU]
$C_5H_{14}Si$	[760-32-7]	Methyldiethylsilane				
	V		34.6 ± 0.7	298	C	[1988VOR/BAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_5H_{15}NSi$	[2083-91-2]	Pentamethylsilanamine				
	V		33.6 ± 0.8	298	C	[1991VOR/KLY]
	V		31.8 ± 1.7			[1967BAL/LAP, 1982PIL/SKI]
	V	(313–357)	31.7	335		[1958EBS/EME]
$C_5H_{20}O_5Si_5$	[6166-86-5]	1,3,5,7,9-pentamethylcyclopentasiloxane				
	V		47.0 ± 0.9	298	C	[1991VOR/KLY2]
$C_6H_4Cl_4Si$	[2003-90-9]	(2-chlorophenyl)trichlorosilane				
	V	(406–472)	52.1	439	EB	[1974BES/MAR]
$C_6H_4Cl_4Si$	[2003-89-6]	(3-chlorophenyl)trichlorosilane				
	V	(398–463)	50.7	430	EB	[1974BES/MAR]
$C_6H_5Cl_3Si$	[98-13-5]	Phenyl trichlorosilane				
	FUS	(14–289)	11.66	233.4	AC	[1996DOM/HEA, 1965GUM/KOS]
	V	(333–453)	51.1	348		[1970SOK/KAR]
	V	(375–470)	47.9	390	I	[1954JEN/CHA]
$C_6H_5F_3Si$	[368-47-8]	Trifluorophenylsilane				
	V	(242–371)	40.1	257		[1947STU]
$C_6H_8Cl_4SSi_2$	[4480-01-7]	2,5-bis(methyldichlorosilyl)thiophene				
	V	(405–522)	55.7	420		[1981DIT/SKO]
C_6H_8Si	[694-53-1]	Phenylsilane				
	FUS		8.4	201		[2006ZEL/CHU]
	V	(238–390)	36.6 ± 0.3	314		[2006ZEL/CHU]
$C_6H_9F_6NSi$	[17599-55-2]	1,1,1-trimethyl-*N*-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]silanamine				
	V		30.5	358	I	[1972SWI/BAB]
$C_6H_{10}Cl_2Si$	[3651-23-8]	Diallydichlorosilane				
	V	(254–390)	47.9	269		[1947STU]
$C_6H_{10}N_2O_4Si$	[18544-43-9]	Diethoxydiisocyanatosilane				
	V		46.0			[1948FOR/AND]
$C_6H_{11}NSi_2$	[4459-07-8]	*N*-phenyldisilazane				
	V	(298–356)	34.9	327	T	[1969AYL/HAK]
$C_6H_{12}Si$	[6224-91-5]	1-trimethylsilyl-1-propyne				
	FUS		10.96	204.5		[1993KUL/LEB, 1997LEB/KUL]
$C_6H_{12}Si$	[16054-12-9]	1,1-dimethyl-1-silacyclopent-3-ene				
	FUS		7.77	166.8		[2000BYK/LEB]
$C_6H_{12}Si$	[3514-67-8]	1-methyl-1-vinylsilacyclobutane				
	V		33.1	298	C	[1991VOR/KLY3]
$C_6H_{12}Si_2$	[1627-98-1]	1,1,3,3-tetramethyl-1,3-disilacyclobutane				
	V		39.5	391		[1975GUS/KAR]
$C_6H_{14}Si$	[30681-90-4]	1,1,2-trimethylsilacyclobutane				
	V		36.0	298	C	[1991VOR/KLY3]
$C_6H_{14}Si$	[1072-54-4]	1,1-dimethylsilacyclopentane				
	V		37.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_6H_{14}Si$	[2295-13-8]	1,1,3-trimethylsilacyclobutane				
	V		35.5	298	C	[1991VOR/KLY3]
$C_6H_{15}ClSi$	[994-30-9]	Chlorotriethylsilane				
	V	(268–419)	42.9	419		[1947STU]
$C_6H_{15}ClSi$	[18162-48-6]	*tert*-butyldimethylchlorosilane				
	TRS		7.75	203.6		
	FUS		5.6	358.1	DTA,DSC	[1994BRA/DOU]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_6H_{15}FO_3Si$	[358-60-1]	Triethoxyfluorosilane				
	V	(291–373)	40.3	332	I	[1949EME/HEA]
$C_6H_{15}NOSi_2$	[1560-30-1]	Pentamethyldisilanyl isocyanate				
	V	(320–377)	44.2	348		[1963URE/MAC]
$C_6H_{15}NSi$	[10519-97-8]	Trimethyl(allylamino)silane				
	V	(296–363)	35.1 ± 0.2	330		[2010RAK/TSI]
$C_6H_{15}NSi_2$	[1560-29-8]	Pentamethyldisilanyl cyanide				
	V	(335–402)	46.9	350		[1962CRA/URE]
$C_6H_{16}OSi$	[1825-63-4]	Propoxytrimethylsilane				
	V		34.3 ± 0.6	298	C	[1988VOR/BAR]
	V		34.3 ± 0.3	298	C	[1985KLY/DAN]
$C_6H_{16}OSi$	[1825-64-5]	Isopropoxytrimethylsilane				
	V		31.8 ± 0.6	298	C	[1988VOR/BAR]
	V		31.8 ± 0.4	298	EB	[1985KLY/DAN]
$C_6H_{16}OSi$	[597-52-4]	Triethylsilanol				
	V	(298–413)	50.6	355	I	[1953GRU/OST]
$C_6H_{16}O_2Si$	[78-62-6]	Diethoxydimethylsilane				
	V		43.1 ± 0.7	298	C	[1988VOR/BAR]
	V		43.1 ± 0.3	298	EB	[1985KLY/DAN]
	V	(254–386)	43.3	269		[1947STU]
$C_6H_{16}O_3SSi$	[66785-19-1]	Trimethoxy[2-(methylthio)ethyl]silane				
	V		45.2 ± 0.7	298	C	[1989VOR/SOR]
$C_6H_{16}O_3SSi$	[53696-79-0]	[(Ethylthio)methyl]trimethoxysilane				
	V		41.4 ± 0.6	298	C	[1989VOR/SOR]
$C_6H_{16}Si$	[756-81-0]	Dimethyldiethylsilane				
	V		38.9 ± 0.6	298	C	[1988VOR/BAR]
$C_6H_{16}Si$	[617-86-7]	Triethylsilane				
	V		37.4 ± 0.6	298	C	[1988VOR/BAR]
	V	(303–373)	33.5		EB,I	[1975BRA/KAR]
	V		36.4 ± 1.3			[1972PED/ISE, 1982PIL/SKI]
$C_6H_{16}Si_2$	[1627-98-1]	1,1,3,3-tetramethyl-1,3-disilacyclobutane				
	FUS		10.26	266		[1996DOM/HEA, 1975GUS/KAR]
	V		36.7 ± 1.1	298	I	[1974SHM/SHL]
	V		41.0 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_6H_{17}B_5Br_2Si_2$	[66798-29-6]	2,4-bis(bromodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	V	(388–463)	53.1	403	I	[1979GOL/SHM]
$C_6H_{17}B_5Cl_2Si_2$	[28699-83-4]	2,4-bis(chlorodimethylsilyl)-2,4-dicarbo-closo-heptaborane (7)				
	V	(359–439)	46.2	374	I	[1979GOL/SHM]
$C_6H_{18}Cl_2O_2Si_3$	[3582-71-6]	1,5-dichlorohexamethyltrisiloxane				
	V	(299–457)	49.8	314		[1947STU]
$C_6H_{18}OSi_2$	[107-46-0]	Hexamethyldisiloxane				
	FUS		11.99	206.11	DSC	[2011ABB/SCH]
	FUS		11.92	204.9		[1996DOM/HEA, 1961SCO/MES]
	V	(300–383)	36.9	315	EB	[1986FLA]
	V	(293–361)	33.1	327		[1971DIT/SKO]
	V		37.2 ± 1.7			[1964GOO/LAC, 1982PIL/SKI]
	V	(309–411)	36	324	EB	[1961SCO/MES]
	V		34.6 ± 0.1	332	C	[1961SCO/MES]
	V		33.1 ± 0.1	351	C	[1961SCO/MES]
	V		31.3 ± 0.1	373	C	[1961SCO/MES]
	V		37.2 ± 1.7			[1947STU]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_6H_{18}O_3Si_3$	[541-05-9]	Hexamethylcyclotrisiloxane				
	FUS		19.4	344	DSC	[1995OUT/KLO]
	FUS		16.61	335.2		[1996DOM/HEA, 1982KUL/DZH]
	FUS		11.8	335.2		[1971ALV/DAL]
	FUS		15.5	341.2	S-V	[1953OST/GRU]
	SUB	(297–335)	55.2 ± 0.4	316		[1953OST/GRU]
	V	(342–419)	40.8	357	EB	[1986FLA]
	V	(353–403)	39.7	368		[1974BRA/KAR]
	V	(339–407)	39.0	373		[1971DIT/SKO]
	V	(343–388)	39.7	365		[1953OST/GRU]
$C_6H_{18}Si_2$	[1450-14-2]	Hexamethyldisilane				
	TRS		9.75	221.8		
	FUS		3.02	287.7		[1996DOM/HEA, 1959SUG/SEK]
	V	(305–387)	36.3	320	EB	[1986TAK/ISH]
	V		37.4 ± 0.4			[1972PED/ISE, 1982PIL/SKI]
	V	(288–310)	37.2			[1959SUG/SEK, 1986TAK/ISH]
	V	(294–334)	36.8			[1941BRO/DAV, 1986TAK/ISH]
$C_6H_{19}B_5Si_2$	[59351-11-0]	2,4-bis(dimethylsilyl)-2,4-dicarba-closo-heptaborane				
	V	(373–453)	41.3	388	I	[1976SHM/SHL]
$C_6H_{19}NSi_2$	[999-97-3]	Hexamethyldisilazane				
	V	(293–382)	37.4 ± 0.4	338	Static	[2015ERM/SYS]
	V		42.2 ± 0.9	298	C	[1991VOR/KLY]
	V	(294–395)	36.0	344		[1972DIT/SKO2]
	V		41.4 ± 2.1			[1966BEE/MOR, 1982PIL/SKI]
$C_6H_{19}N_3Si$	[15112-89-7]	tris(dimethylamino)silane				
	V	(309–387)	41.1	348	T	[1964AYL/PET]
$C_6H_{21}N_3Si_3$	[1009-93-4]	Hexamethylcyclotrisilazane				
	FUS		15.17	254.4		[1996DOM/HEA, 1981MEK/KAR]
	V	(342–456)	45.6	399		[1972DIT/SKO2]
$C_7H_8Cl_2Si$	[18173-99-4]	Benzyl dichlorosilane				
	V	(318–467)	58.5	333		[1947STU, 1999DYK/SVO]
$C_7H_8Cl_2Si$	[149-74-6]	Phenyldichloromethylsilane				
	V	(309–479)	51.2	323		[1947STU, 1999DYK/SVO]
$C_7H_8Cl_2Si$	[13272-80-5]	Dichloro-4-tolylsilane				
	V	(319–469)	58	334		[1947STU, 1999DYK/SVO]
$C_7H_8F_2Si$	[13272-80-5]	Difluoromethylphenylsilane				
	V	(303–413)	44.6	318		[1999DYK/SVO]
$C_7H_9F_8NOSSi$	[77589-40-3]	2,2,3,3,4,4,5,5-octafluoro-1,1,2,3,4,5-hexahydro-1-[(trifluoromethyl)silyl]imino]thiophene-1-oxide				
	V		31.4	383		[1981ABE/SHR2]
$C_7H_9F_2N_2OSSi$	[62609-67-0]	1,1,1-trifluoro-*N*-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-*N*′-(trimethylsilyl)methanesulfonimidamide				
	V		39.3	429	I	[1977KIT/SHR, 1999DYK/SVO]
$C_7H_{15}NO_3Si$	[2288-13-3]	1-methyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		82 ± 0.8			[1989VOR/BAR]
$C_7H_{15}NO_4Si$	[18340-01-7]	Triethoxyisocyanatosilane				
	V		45.6			[1948FOR/AND]
$C_7H_{16}O_3SSi$	[57877-58-4]	Trimethoxy[(2-propenylthio)methyl]silane				
	V		38.6 ± 0.5	298	C	[1989VOR/SOR]
$C_7H_{17}ClSi$	[18817-17-9]	(1-chloroethyl)diethylmethylsilane				
	V	(353–445)	41.8	400		[1999DYK/SVO]
$C_7H_{17}NSi$	[18387-12-7]	*N*-(β-trimethylsilyethyl)ethylenimine				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	FUS		10.62	176.5		[1996DOM/HEA, 1974LEB/ARO, 1974LEB/TSV]
$C_7H_{18}OSi$	[1825-65-6]	Butyl trimethylsilyl ether				
	V	(344–397)	38.5	359	EB	[1969SHE/LAN, 1984BOU/FRI]
$C_7H_{18}O_2Si$	[3965-63-7]	*tert*-butyldioxytrimethylsilane				
	V		34.1 ± 0.5	298	C	[2010DIB/PAV]
$C_7H_{18}O_3SSi$	[94358-36-8]	Trimethoxy[3-(methylthio)propyl]silane				
	V		43.5 ± 0.6	298	C	[1989VOR/SOR]
$C_7H_{18}O_3SSi$	[40532-52-3]	[2-(ethylthio)ethyl]trimethoxysilane				
	V		41.4 ± 0.7	298	C	[1989VOR/SOR]
$C_7H_{18}O_3Si$	[2031-67-6]	Triethoxymethylsilane				
	V		45.1 ± 0.7	298	C	[1988VOR/BAR]
	V		45.1 ± 0.4	298	EB	[1985KLY/DAN]
	V	(272–416)	45.2	287		[1947STU]
$C_7H_{18}SSi$	[3553-78-4]	(*n*-butylthio)trimethylsilane				
	V		40.6 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]
$C_7H_{18}Si$	[757-21-1]	Methyltriethylsilane				
	V		40.5 ± 0.6	298	C	[1988VOR/BAR]
$C_7H_{18}Si$	[999-03-1]	Methyldipropylsilane				
	V		35.9 ± 0.7	298	C	[1988VOR/BAR]
$C_7H_{18}Si$	[18442-00-7]	Methyldiisopropylsilane				
	V		32.4 ± 0.8	298	C	[1988VOR/BAR]
$C_7H_{19}NSi$	[996-50-9]	*N*,*N* diethyl-1,1,1-trimethylsilanamine				
	V	(296–372)	37.1 ± 0.2	334		[2010RAK/TSI]
	V		37.9 ± 0.8	298	C	[1991VOR/KLY]
$C_7H_{20}Si_2$	[2117-28-4]	Methylene-bis(trimethylsilane)				
	V	(323–407)	40.3 ± 0.3	365	QM	[1975GUS/KUL, 1975GUS/KAR]
$C_7H_{20}Si_2$	[2117-28-4]	Hexamethyldisilylmethane				
	FUS		11.11	140.7		[1996DOM/HEA, 1975GUS/KAR]
$C_7H_{21}NSi_2$	[920-68-3]	*N*,1,1,1-tetramethyl-*N*-(trimethylsilyl)silanamine				
	V		38.1 ± 0.8	298	C	[1991VOR/KLY]
	V		38.9 ± 2.1			[1967BAL/LAP, 1982PIL/SKI]
$C_8H_{10}Cl_2OSi$	[18236-80-1]	Dichloroethoxyphenylsilane				
	V	(325–496)	56.3	340		[1999DYK/SVO]
$C_8H_{10}Cl_2Si$	[1125-27-5]	Dichloroethylphenylsilane				
	V	(316–503)	51.3	331		[1999DYK/SVO]
$C_8H_{11}ClSi$	[768-33-2]	Chlorodimethylphenylsilane				
	V	(302–467)	52.2	317		[1999DYK/SVO]
	V	(303–466)	49.7	318		[1947STU]
$C_8H_{11}FSi$	[454-57-9]	Fluorodimethylphenylsilane				
	V	(303–423)	49.6	318		[1999DYK/SVO]
$C_8H_{12}Si$	[1112-55-6]	Tetravinylsilane				
	V		42.7 ± 0.7	298	C	[1988VOR/BAR]
$C_8H_{12}Si$	[766-77-8]	Dimethylphenylsilane				
	V	(298–432)	45.3	293		[1947STU]
$C_8H_{15}NO_3Si$	[2097-18-9]	1-ethenyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		85 ± 0.8			[1989VOR/BAR]
$C_8H_{16}Cl_4O_4Si$	[18290-84-1]	tetrakis(2-chloroethoxy)silane				
	V	(447–500)	81.1	473		[1999DYK/SVO, 1946JON/THO]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_8H_{17}NO_3Si$	[2097-16-7]	1-ethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		81 ± 0.9			[1989VOR/BAR]
$C_8H_{17}NO_3Si$	[18225-19-9]	1,7-dimethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		92 ± 0.8			[1989VOR/BAR]
$C_8H_{17}NO_4Si$	[3463-21-6]	1-ethoxy-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		81 ± 0.8			[1989VOR/BAR]
$C_8H_{18}F_3NOSi_2$	[25561-30-2]	Trifluoro-*N*,*O*-bis(trimethylsilyl)acetamide				
	V	(316–350)	41.8	333		[1970VON/GLE]
$C_8H_{18}O_3Si$	[78-08-0]	Vinyltriethoxysilane				
	V	(331–420)	48.3	298	EB	[2015WAN/DON]
	V		50.2 ± 0.8	298	C	[1988VOR/BAR]
	V		50.2 ± 0.4	298	EB	[1985KLY/DAN]
	V	(334–421)	46.2	349	I	[1954JEN/CHA]
$C_8H_{19}NSi$	[42525-64-4]	*N*-(β-trimethylsilylethyl)trimethylenimine				
	FUS	(7–305)	12.9	199.4	AC	[1996DOM/HEA, 1977LEB/RAB2]
$C_8H_{19}NSi$		Triethylsilylethyleneimine				
	FUS		14.25	183.6		[2001SMI/LEB]
$C_8H_{20}Cl_2OSi_2$	[18825-03-1]	1,3-dichloro-1,1,3,3-tetraethyldisiloxane				
	V	(343–463)	53.6	358		[1971SOK/KAR, 1999DYK/SVO]
$C_8H_{20}O_3SSi$	[57557-74-1]	[3-(ethylthio)propyl]trimethoxysilane				
	V		41.8 ± 0.6	298	C	[1989VOR/SOR]
$C_8H_{20}O_3SSi$	[57557-68-3]	[(butylthio)methyl]trimethoxysilane				
	V		41.6 ± 0.6	298	C	[1989VOR/SOR]
$C_8H_{20}O_3SSi$	[57557-69-4]	Trimethoxy[[(2-methylpropyl)thio]methyl]silane				
	V		38.7 ± 0.6	298	C	[1989VOR/SOR]
$C_8H_{20}O_3SSi$	[57557-70-7]	[[(1,1-dimethylethyl)thio]methyl]trimethoxysilane				
	V		50.6 ± 0.7	298	C	[1989VOR/SOR]
$C_8H_{20}O_3Si$	[78-07-9]	Ethyltriethoxysilane				
	V	(335–432)	49.6	350	EB	[2010DON/LIU]
	V	(335–432)	44.4	432	EB	[2010DON/LIU]
	V	(338–426)	47.0	353	I	[1954JEN/CHA]
$C_8H_{20}O_4Si$	[78-10-4]	Tetraethoxysilane				
	TRS		13.2	187.7		
	FUS		11.14	191		[1992VAN/COR]
	V	(323–442)	53.9	298	SG	[1995VAN/COR]
	V	(323–442)	52.3	298	SG	[1995VAN/COR]
	V	(404-437)	40.9	419	EB	[1989KAT/TAN]
	V		48.5 ± 0.3	298	EB	[1985KLY/DAN]
	V	(313–440)	50.0	328		[1980THO/SMI]
	V	(273–344)	U33.9			[1973DYA/VIG]
	V	(289–441)	49.5	304		[1947STU]
	V	(285–446)	43.0	366		[1932SOL/MOL]
$C_8H_{20}Si$	[995-89-1]	Dimethyldipropylsilane				
	V		40.2 ± 0.6	298	C	[1988VOR/BAR]
$C_8H_{20}Si$	[631-36-7]	tetraethylsilane				
	FUS	(100–220)	13.01	189.4		[1990DOM/HEA, 1954STA/WAR]
	V		39.0 ± 0.7	298	C	[1988VOR/BAR]
	V		39.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
	V	(272–426)	43.3	287		[1947STU]
$C_8H_{20}Si$	[998-14-1]	Ethyldipropylsilane				
	V		37.9 ± 0.6	298	C	[1988VOR/BAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_8H_{20}Si$	[17591-40-1]	Ethyldiisopropylsilane				
	V		38.1 ± 0.7	298	C	[1988VOR/BAR]
$C_8H_{20}Si$	[30736-07-3]	di-*tert*-butylsilane				
	V	(242–288)	41.4	257		[2005FUL/RUZ]
$C_8H_{23}B_5Si_2$	[59351-10-9]	2,4-bis(trimethylsilyl)-2,4-dicarba-*closo*-heptaborane				
	V	(373–473)	45.0	388	I	[1976SHM/SHL]
$C_8H_{24}Cl_2O_3Si_4$	[2474-02-4]	1,7-dichloro-1,1,3,3,5,5,7,7-octamethyltetrasiloxane				
	V	(326–495)	53.8	341		[1999DYK/SVO]
$C_8H_{24}N_4Si$	[1624-01-7]	tetrakis(dimethylamino)silane				
	V	(361–415)	40.0	388	T	[1964AYL/PET]
$C_8H_{24}O_2Si_3$	[107-51-7]	Octamethyltrisiloxane				
	FUS		13.6	186.7	DSC	[2011ABB/SCH]
	V	(346–446)	43.2	361	EB	[1986FLA]
	V		39.7 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
	V	(345–417)	40.2	381		[1971SKO/DIT]
$C_8H_{24}O_4Si_4$	[556-67-2]	Octamethylcyclotetrasiloxane				
	FUS		19.06	291.12	DSC	[2011ABB/SCH]
	TRS		4.87	258		
	FUS		23.77	290.5	C	[1996DOM/HEA, 1971ALV/DAL]
	FUS		18.4	290.7		[1953OST/GRU]
	SUB		64 ± 2		B	[1953OST/GRU, 1960JON]
	V	(308–368)	48		GCRT	[2010LEI/WAN]
	V		57.0 ± 0.8	298	C	[1991VOR/KLY2]
	V	(361–469)	47.6	376	EB	[1986FLA]
	V	(334–423)	44.1	378		[1971DIT/SKO]
	V	(303–428)	56.1	298	I	[1954OST/GRU]
	V	(303–428)	48.5	373	I	[1954OST/GRU]
	V	(303–428)	45.6	398	I	[1954OST/GRU]
$C_8H_{24}O_{12}Si_8$	[57348-79-5]	Octamethyldodecaoxooctasilicon				
	SUB	(463–563)	110.5	513	A	[1987STE/MAL, 1975TIT/CHU]
$C_8H_{24}Si_3$	[3704-44-7]	Octamethyltrisilane				
	V		46.0 ± 0.8			[1972PED/ISE, 1982PIL/SKI]
$C_8H_{28}N_4Si_4$	[1020-84-4]	Octamethylcyclotetrasilazane				
	FUS		25.05	367.7		[1996DOM/HEA, 1981MEK/KAR]
	V	(388–513)	52.3	450		[1972DIT/SKO2]
$C_9H_5N_3O_3Si$	[17883-47-5]	Triisocyanatophenylsilane				
	V		58.2			[1948FOR/AND]
$C_9H_9F_5Si$	[1206-46-8]	Pentafluorophenyl(trimethyl)silane				
	FUS		8.4	223	DSC	[2006ZEL/CHU, 2008ZEL/CHU]
	V	(273–440)	40.6 ± 0.3	357		[2006ZEL/CHU]
$C_9H_{14}OSi$	[1529-17-5]	Phenoxytrimethylsilane				
	V		56.9 ± 0.8	298	C	[1988VOR/BAR]
$C_9H_{14}Si$	[768-32-1]	Trimethylphenylsilane				
	V	(296-404)	43.8 ± 0.7	350	ST	[2015ERM/SYS]
$C_9H_{15}NSi$	[3768-55-6]	Trimethyl(phenylamino)silane				
	V	(311–455)	45.7 ± 0.7	383	Static	[2015ERM/SYS]
	V	(312–452)	46 ± 1	383		[2010RAK/TSI]
$C_9H_{19}NO_3Si$	[26053-77-0]	1-propyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		84 ± 0.8			[1989VOR/BAR]
$C_9H_{19}NO_3Si$	[2097-17-8]	1-(1-methylethyl)-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		92 ± 0.9			[1989VOR/BAR]
$C_9H_{19}NO_3Si$	[56492-01-4]	1,3,7-trimethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		101 ± 0.8			[1989VOR/BAR]
$C_9H_{20}OSi$	[13871-89-1]	Cyclohexyl trimethylsilyl ether				
	V	(364–441)	45.1	379	EB	[1969SHE/LAN]
$C_9H_{22}O_3SSi$	[53696-83-6]	Triethoxy[(ethylthio)methyl]silane				
	V		42.3 ± 0.6	298	C	[1989VOR/SOR]
$C_9H_{22}Si$	[994-44-5]	Propyltriethylsilane				
	V		40.0 ± 0.7	298	C	[1988VOR/BAR]
$C_9H_{22}Si$	[998-29-8]	Tripropylsilane				
	V		39.1 ± 0.7	298	C	[1988VOR/BAR]
$C_9H_{22}Si$	[999-35-9]	Methyldibutylsilane				
	V		36.2 ± 0.7	298	C	[1988VOR/BAR]
$C_9H_{23}NO_3Si$	[919-30-2]	γ-aminopropyltriethoxysilane				
	V	(363–492)	55.8	388		[1976DIT/SKO]
$C_9H_{23}NSi$	[5277-20-3]	1,1,1-triethyl-*N*-(1-methylethyl)silanamine				
	V		38.6 ± 0.8	298	C	[1991VOR/KLY]
$C_9H_{23}NSi$	[17887-11-5]	1,1,1-triethyl-*N*-propylsilanamine				
	V		41.5 ± 0.8	298	C	[1991VOR/KLY]
$C_9H_{24}Si_2$	[2295-05-8]	1,3-propanediyl-bis(trimethylsilane)				
	V	(338–443)	43.1 ± 0.5	390	QM	[1975GUS/KUL, 1975GUS/KAR]
$C_9H_{24}Si_2$	[2295-05-8]	1,3-hexamethyldisilylpropane				
	FUS		16.05	223.7		[1996DOM/HEA, 1975GUS/KAR]
$C_9H_{24}Si_3$	[1627-99-2]	1,1,3,3,5,5-hexamethyl-1,3,5-trisilacyclocyclohexane				
	FUS		16.5	269.3		[1996DOM/HEA, 1975GUS/KAR]
$C_9H_{27}NSi_3$	[1586-73-8]	tris(trimethylsilyl)amine				
	TRS		7.9	244.2		
	FUS		1.77	337.2	DSC	[1971MUR/BRE]
	V		54.4 ± 8.4			[1967BAL/LAP, 1982PIL/SKI]
$C_{10}H_9F_7Si$	[122571-42-0]	Trimethyl(4-trifluoromethylphenyl)silane				
	V	(296–460)	47.4 ± 0.2	378		[2006ZEL/CHU]
$C_{10}H_{14}Si$	[3944-08-9]	1-phenyl-1-methyl-1-silacyclobutane				
	FUS		12.28	210		[1996DOM/HEA, 1978LEB/RAB]
$C_{10}H_{14}Si$	[1125-26-4]	Vinyldimethylphenylsilane				
	FUS		12.26	190.7		[1996DOM/HEA, 1974LEB/ARO, 1977LEB/RAB3]
$C_{10}H_{16}OSi$	[704-43-8]	(2-methoxyphenyl)trimethylsilane				
	V		59.4 ± 0.8	298	C	[1988VOR/BAR]
$C_{10}H_{16}OSi$	[17876-90-3]	(3-methoxyphenyl)trimethylsilane				
	V		56.1 ± 0.8	298	C	[1988VOR/BAR]
$C_{10}H_{16}OSi$	[877-68-9]	(4-methoxyphenyl)trimethylsilane				
	V		56.9 ± 0.8	298	C	[1988VOR/BAR]
$C_{10}H_{16}OSi$	[17902-31-7]	*m*-tolyl trimethylsilyl ether				
	V	(371–398)	49.7	384	EB	[1969SHE/LAN]
$C_{10}H_{16}OSi$	[17902-32-8]	*p*-tolyl trimethylsilyl ether				
	V	(374–402)	49.8	388	EB	[1969SHE/LAN]
$C_{10}H_{16}OSi$	[1825-58-7]	Ethoxy(dimethyl)phenylsilane				
	V	(348–468)	55.2	363	EB	[2012ZHA/WU]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{10}H_{16}O_2Si$	[112123-25-8]	Ethyl(phenyl)dimethoxysilane				
	V	(374–467)	62.5 ± 0.3	298	EB	[2015WU/DON]
$C_{10}H_{16}O_3SSi$	[57557-71-8]	Trimethoxy[(phenylthio)methyl]silane				
	V		56.4 ± 0.7	298	C	[1989VOR/SOR]
$C_{10}H_{18}Si$	[17985-13-6]	5-(trimethylsilyl)-2-norbornene				
	FUS	(10–330)	6.84	201.6	AC	[1994LEB/SMI2]
$C_{10}H_{18}Si_2$	[4526-07-2]	1,1′-(1,3-butadiyne-1,4-diyl)bis[1,1,1-trimethylsilane]				
	SUB	(309–364)	43.3 ± 0.6		TG-GS	[2012SEL/SAT]
$C_{10}H_{20}O_2Si$	[13081-67-9]	Diallyl(diethoxy)silane				
	V	(342–459)	48.3	357	A	[1987STE/MAL]
$C_{10}H_{20}NO_3Si$	[71229-51-1]	1,3,7,10-tetramethyl-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		115 ± 0.9			[1989VOR/BAR]
$C_{10}H_{24}O_2Si$	[2031-63-2]	Dipropyldiethoxysilane				
	V		46.5 ± 0.7	298	C	[1988VOR/BAR]
	V		46.4 ± 0.3	298	EB	[1985KLY/DAN]
$C_{10}H_{24}O_3SSi$	[57557-72-9]	Triethoxy[2-(ethylthio)ethyl]silane				
	V		46.9 ± 0.7	298	C	[1989VOR/SOR]
$C_{10}H_{24}O_4Si$	[10196-44-8]	bis(tert-butylperoxy)dimethylsilane				
	V		54.6 ± 0.4	298	C	[2010DIB/PAV]
$C_{10}H_{24}Si$	[994-59-2]	Diethyldipropylsilane				
	V		41.5 ± 0.7	298	C	[1988VOR/BAR]
$C_{10}H_{24}Si$	[995-24-4]	Methyltripropylsilane				
	V		42.6 ± 0.6	298	C	[1988VOR/BAR]
$C_{10}H_{24}Si$	[998-61-8]	Ethyldibutylsilane				
	V		39.9 ± 0.7	298	C	[1988VOR/BAR]
$C_{10}H_{24}Si$	[17591-42-3]	Ethyldiisobutylsilane				
	V		39.8 ± 0.7	298	C	[1988VOR/BAR]
$C_{10}H_{25}NO_2Si_3$	[27602-22-8]	1,1,1,3,5,5,5-heptamethyl-3-(2-cyanoethyl)trisiloxane				
	V	(367–511)	59.5	382	A	[1987STE/MAL]
$C_{10}H_{25}NSi$	[6022-10-2]	Pentaethylsilanamine				
	V		42.2 ± 1.0	298	C	[1991VOR/KLY]
$C_{10}H_{25}NSi$	[17940-20-4]	*N*-(1,1-dimethylethyl)-1,1,1-triethylsilanamine				
	V		40.3 ± 0.9	298	C	[1991VOR/KLY]
$C_{10}H_{26}O_3Si_3$	[110505-51-6]	1,1,3,3-tetraethyl-5,5-dimethylcyclotrisiloxane				
	TRS	(5–300)	0.13	195		
	FUS	(5–300)	9.52	260		[1996DOM/HEA, 1987DZH/KUL]
$C_{10}H_{28}O_4Si_3$	[17928-13-1]	1,5-diethoxy-1,1,3,3,5,5-hexamethyltrisiloxane				
	V	(314–470)	56.2	329	A	[1987STE/MAL]
$C_{10}H_{30}OSi_4$	[1360-31-2]	bis[(pentamethyl)disilanyl] ether				
	V	(376–456)	49.3	376		[1962CRA/URE]
$C_{10}H_{30}O_3Si_4$	[17928-28-8]	Methyl tris(trimethylsiloxy)silane				
	V	(362–476)	49.5	377	EB	[1986FLA]
$C_{10}H_{30}O_3Si_4$	[141-62-8]	Decamethyl tetrasiloxane				
	FUS		17.13	197.0	DSC	[2011ABB/SCH]
	V	(366–479)	50.3	381	EB	[1986FLA]
	V	(343–454)	48.2	358	A	[1987STE/MAL, 1971SKO/DIT]
$C_{10}H_{30}O_5Si_5$	[541-02-6]	Decamethyl cyclopentasiloxane				
	FUS		19.51	229.7	DSC	[2011ABB/SCH]
	FUS		20.37	226.2		[1971ALV/DAL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(308–368)	60		GCRT	[2010LEI/WAN]
	V		59.0 ± 1.0	298	C	[1991VOR/KLY2]
	V	(383–496)	52.1	398	EB	[1986FLA]
	V	(364–472)	49.0	379	A	[1987STE/MAL, 1971DIT/SKO]
	V		48.1 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_{10}H_{30}Si_4$	[865-76-9]	Decamethyltetrasilane				
	V		52.3 ± 1.7			[1972PED/ISE, 1982PIL/SKI]
$C_{10}H_{31}NSi_4$	[1787-38-8]	1,1,3,3-tetramethyl-1,3-bis(trimethylsilyl)disilazane				
	V	(378–435)	58.0	393	A	[1987STE/MAL, 1963URE/MAC]
[Note: Molecular formula given in paper is not consistent with chemical name.]						
$C_{11}H_{16}Si$		Vinyldimethylbenzylsilane				
	FUS		11.6	204.1		[1996DOM/HEA, 1981LEB/LEB]
$C_{11}H_{18}O_2Si$	[775-56-4]	(Dimethoxymethylsilyl)benzene				
	V	(378–423)	50.7			[2008WU/DON]
$C_{11}H_{18}O_3Si$	[53696-80-3]	Trimethoxy[[(phenylmethyl)thio]methyl]silane				
	V		56.1 ± 0.7	298	C	[1989VOR/SOR]
$C_{11}H_{20}OSi$	[17962-20-8]	Triallylethoxy silane				
	V	(349–473)	48.4	364	A	[1987STE/MAL]
$C_{11}H_{20}OSi_2$	[14920-92-4]	Pentamethylphenyl disiloxane				
	V	(347–474)	53.3	362	A	[1987STE/MAL]
	V	(347–474)	44.4	410		[1974ENG/WOO]
$C_{11}H_{20}O_3Si_3$	[17962-31-1]	1,1,3,3,5-pentamethyl-5-phenylcyclotrisiloxane				
	V	(396–503)	48.0	450		[1974DIT/SKO]
$C_{11}H_{24}O_3Si$	[13080-95-0]	Vinyltripropoxysilane				
	V		52.3 ± 0.9	298	C	[1988VOR/BAR]
	V		52.3 ± 0.4	298	EB	[1985KLY/DAN]
$C_{11}H_{26}Si$	[994-63-8]	Ethyltripropylsilane				
	V		41.0 ± 0.7	298	C	[1988VOR/BAR]
$C_{11}H_{26}Si$	[1001-48-5]	Methyldipentylsilane				
	V		40.3 ± 0.7	298	C	[1988VOR/BAR]
$C_{11}H_{26}Si$		methyldi(2,2-dimethylpropyl)silane				
	V		38.1 ± 0.1	298	C	[1988VOR/BAR]
$C_{11}H_{27}NSi$	[133943-80-3]	1,1,1-triethyl-*N*-(1-methylbutyl)silanamine				
	V		46.9 ± 1.0	298	C	[1991VOR/KLY]
$C_{11}H_{28}O_4Si_4$	[35331-58-9]	8,8,10,10,12,12-hexamethyl-7,9,11,13-tetrasiloxa-6,8,10,12-tetrasilaspiro[5,7]tridecane				
	V	(393–504)	47.6	408	A	[1987STE/MAL]
	V	(393–504)	48.8	449		[1974DIT/SKO]
$C_{11}H_{28}O_4Si_4$	[35331-58-9]	Hexamethyl(silacyclohexyl)cyclotetrasiloxane				
	V	(403–504)	48.89	453		[1974DIT/SKO2]
$C_{12}H_9Cl_3Si$	[18030-62-1]	2-(trichlorosilyl)biphenyl				
	TRS		0.06	289.5		
	FUS		20.72	339.2		[1974GEI/DZH, 1996DOM/HEA]
	V	(461–552)	67.1	476	A	[1987STE/MAL, 1975GEI/DZH2]
$C_{12}H_9Cl_3Si$	[18030-61-0]	4-(trichlorosilyl)biphenyl				
	FUS		18.57	372.9		[1996DOM/HEA, 1974GEI/DZH]
	V	(479–573)	75.7	494	A	[1987STE/MAL, 1975GEI/DZH2]
$C_{12}H_{10}Cl_2Si$	[80-10-4]	Dichlorodiphenylsilane				
	V	(465–555)	62.5	480	A,I	[1987STE/MAL, 1954JEN/CHA]
	V		69.5 ± 4.2			[1966RIN/ONE, 1982PIL/SKI]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{10}F_2Si$	[312-40-3]	Difluorodiphenylsilane				
	V	(392–516)	50.7	407	A	[1987STE/MAL]
	V	(392–516)	54.4	545		[1944EME/WIL]
$C_{12}H_{13}NSi$	[22519-44-4]	(*N*, *N*-diphenylamino)silane				
	V	(425–495)	50.4	460	T	[1969AYL/HAK2]
$C_{12}H_{20}Cl_8O_4Si$		tris(2,2′-dichloroisopropyl) orthosilicate				
	V	(517–532)	U172.7	524		[1946JON/THO]
$C_{12}H_{20}O_2Si$	[1421623-16-6]	Diethoxy(methyl)(*o*-tolyl)silane				
	V		61.0	393	EB	[2012CAO/WU]
	V		58.5	413	EB	[2012CAO/WU]
	V		55.2	439	EB	[2012CAO/WU]
	V		52.2	463	EB	[2012CAO/WU]
	V		50.9	473	EB	[2012CAO/WU]
$C_{12}H_{20}O_2Si$	[1421601-73-1]	Diethoxy(methyl)(*m*-tolyl)silane				
	V		60.9	392	EB	[2012CAO/WU]
	V		58.2	416	EB	[2012CAO/WU]
	V		56.4	432	EB	[2012CAO/WU]
	V		55.1	445	EB	[2012CAO/WU]
	V		53.6	458	EB	[2012CAO/WU]
	V		52.2	471	EB	[2012CAO/WU]
	V		50.9	483	EB	[2012CAO/WU]
$C_{12}H_{20}O_2Si$	[204845-96-5]	Diethoxy(methyl)(*p*-tolyl)silane				
	V		61.4	395	EB	[2012CAO/WU]
	V		58.5	419	EB	[2012CAO/WU]
	V		55.8	442	EB	[2012CAO/WU]
	V		53.5	462	EB	[2012CAO/WU]
	V		51.9	475	EB	[2012CAO/WU]
	V		50.7	485	EB	[2012CAO/WU]
$C_{12}H_{20}O_2Si$	[16522-50-2]	Ethyl(phenyl)diethoxysilane				
	V	(401–493)	65.2 ± 1.6	298	EB	[2015WU/DON]
$C_{12}H_{20}O_3Si$	[780-69-8]	Triethoxyphenylsilane				
	V		58.3 ± 0.9	298	C	[1988VOR/BAR]
	V	(344–506)	61.8	359		[1947STU]
$C_{12}H_{20}Si$	[1112-66-9]	Tetraallylsilane				
	FUS		25.5	244		[2004SMI/LEB]
$C_{12}H_{22}Si_2$	[13183-70-5]	1,4-bis(trimethylsilyl)benzene				
	SUB	(313–367)	68.2 ± 0.2	298	TG-GS	[2011SEL/SAT]
$C_{12}H_{23}NSi_2$	[4147-89-1]	bis(trimethylsilyl)phenylamine				
	V	(321–451)	49.6 ± 0.6	386	Static	[2015ERM/SYS]
$C_{12}H_{28}O_4Si$	[682-01-9]	Tetrapropoxysilane				
	V		49.8 ± 0.8	298	C	[1988VOR/BAR]
	V	(307–563)	66.9	322	A	[1987STE/MAL]
	V		49.8 ± 0.4	298	EB	[1985KLY/DAN]
$C_{12}H_{28}O_4Si$	[1992-48-9]	Tetraisopropoxysilane				
	V	(327–438)	52.7	342		[1980THO/SMI]
$C_{12}H_{28}Si$	[994-66-1]	Tetrapropylsilane				
	V		42.2 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{28}Si$	[998-41-4]	Tributylsilane				
	V		42.9 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{28}Si$	[6485-81-0]	Triisobutylsilane				
	V		40.0 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{28}Si$	[17591-43-4]	Ethyldipentylsilane				
	V		41.2 ± 0.7	298	C	[1988VOR/BAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{28}Si$	[18159-61-0]	Ethyldiisopentylsilane				
	V		42.6 ± 0.7	298	C	[1988VOR/BAR]
$C_{12}H_{30}HgSi_2$	[4149-29-5]	bis(triethylsilyl)mercury				
	V	(383–433)	64.0	398		[1972BRA/KAR]
$2(C_6H_{15}N_3)$-Cl_4Si		bis-1,3,5-trimethyl-1,3,5-triazacyclohexane–tetrachlorosilane complex				
	SUB	(298–354)	76.1 ± 4.6			[1984GOL/LEV]
$C_{12}H_{30}O_3Si_3$	[2031-79-0]	Hexaethyl cyclotrisiloxane				
	FUS		12.3	283	DSC	[1995OUT/KLO]
	TRS	(14–350)	0.47	160		
	TRS	(14–350)	11.73	242.4		
	FUS	(14–350)	11.94	283.4	AC	[1996DOM/HEA, 1988LEB/KUL]
	TRS		0.46	160		
	TRS		11.82	242.3		
	FUS		11.42	280.2		[1990DOM/HEA, 1985DZH/KUL]
	V	(385–524)	57.9	400	A	[1987STE/MAL]
	V	(434–516)	58.7	449	A	[1987STE/MAL, 1954JEN/CHA]
$C_{12}H_{31}N_3Si$	[15730-66-2]	*N*, *N*, *N′*,*N′*,*N″*,*N″*-hexamethylsilanetriamine				
	V		58.4 ± 1.0	298	C	[1991VOR/KLY]
$C_{12}H_{33}GeNSi_2$	[1357556-77-4]	1,1,1-triethyl-*N*,*N*-bis(trimethylsilyl)germanamine				
	V	(371–471)	50.5 ± 0.5	421	Static	[2013SYS/NIK]
$C_{12}H_{33}NSi_2Sn$	[268208-86-2]	1,1,1-triethyl-*N*-(trimethylstannyl)-*N*-(trimethylsilyl)silanamine				
	V	(333–473)	52 ± 2	403	Static	[2013SYS/NIK]
$C_{12}H_{36}Si_5$	[4098-98-0]	tetrakis (trimethylsilyl)silane				
	SUB	(316–416)		56.5	335	[2011SEL/SAT2]
$C_{12}H_{36}O_4Si_5$	[141-63-9]	Dodecamethyl pentasiloxane				
	V	(338–408)	58		GCRT	[2010LEI/WAN]
	V	(395–515)	55.4	410	EB	[1986FLA]
	V	(389–498)	50.3	404	A	[1987STE/MAL, 1971SKO/DIT]
	V		53.1 ± 2.1			[1972PED/ISE, 1982PIL/SKI]
$C_{12}H_{36}O_4Si_5$	[3555-47-3]	tetrakis(trimethylsiloxy)silane				
	V	(398–494)	52.3	413	EB	[1986FLA]
$C_{12}H_{36}O_6Si_6$	[540-97-6]	Dodecamethyl cyclohexasiloxane				
	FUS		28.58	269		[1971ALV/DAL]
	V	(338–418)	65		GCRT	[2010LEI/WAN]
	V	(411–531)	56.1	426	EB	[1986FLA]
	V	(340–509)	62.6	355	A	[1987STE/MAL, 1971DIT/SKO]
$C_{12}H_{36}Si_5$	[4098-98-0]	tetrakis(trimethylsilyl)silane				
	TRS	(203–298)	42	243.7	DSC	[2001SON/HUA]
	TRS		11.57	241.2	DSC	[1971MUR/BRE]
[Note: Compound sublimed, fusion values not reported.]						
	SUB		83.7 ± 20.9	298		[1982PIL/SKI, 1972PED/ISE]
$C_{12}H_{36}Si_6$	[4098-30-0]	Dodecamethylcyclohexasilane				
	TRS		16.7	352.4		
	FUS		4.2	528.8		[1986CAO/WES]
$C_{13}H_{14}Si$	[776-76-1]	Methyldiphenylsilane				
	V		64.6 ± 0.8	298	C	[1988VOR/BAR]
$C_{13}H_{19}NO_4Si$	[63071-93-2]	1-(2-phenoxylmethyl)-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		108 ± 0.8			[1989VOR/BAR]
$C_{13}H_{26}O_2Si_3$	[546-44-1]	1,1,1,3,5,5,5-heptamethyl-3-phenyl trisiloxane				
	FUS		18.29	226.8		[1996DOM/HEA, 1984DZH/KUL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(357–492)	61.5	372	A	[1987STE/MAL]
$C_{13}H_{26}O_4Si_4$	[10448-09-6]	2,4,4,6,6,8,8-heptamethyl-2-phenylcyclotetrasiloxane				
	V	(397–514)	65.6	412	A	[1987STE/MAL]
$C_{13}H_{30}O_3SSi$	[57557-75-2]	[3-(butylthio)propyl]triethoxysilane				
	V		47.1 ± 0.6	298	C	[1989VOR/SOR]
$C_{13}H_{30}O_6Si$	[10196-45-9]	tris(*tert*-butylperoxy)methylsilane				
	V		70.4 ± 0.7	298	C	[2010DIB/PAV]
$C_{13}H_{30}Si$	[18414-75-0]	Decyltrimethylsilane				
	V	(340–513)	57.8	355		[1947STU]
$C_{13}H_{30}Si$	[1001-46-3]	Methyldihexylsilane				
	V		42.6 ± 0.7	298	C	[1988VOR/BAR]
$C_{14}H_6F_{10}Si$	[10536-62-6]	Di(pentafluorophenyl)dimethylsilane				
	V	(366–463)	55.3 ± 0.6	414		[2006ZEL/CHU]
$C_{14}H_{10}N_2O_2Si$	[4756-54-1]	Diisocyanatodiphenylsilane				
	V		65.7			[1948FOR/AND]
$C_{14}H_{16}O_2Si$	[6843-66-9]	Diphenoxydimethylsilane				
	V		64.4 ± 0.9	298	C	[1988VOR/BAR]
$C_{14}H_{16}Si$	[7535-07-1]	Ethyldiphenylsilane				
	V		66.1 ± 0.8	298	C	[1988VOR/BAR]
$C_{14}H_{16}Si$	[15458-91-0]	Dibenzylsilane				
	V	(357–577)	56.0	467		[1959GIL/TOM]
$C_{14}H_{19}NO_5Si$	[79791-55-2]	2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane-1-methanol benzoate ester				
	SUB		109 ± 0.9			[1989VOR/BAR]
$C_{14}H_{21}NO_3Si$	[63330-92-7]	1-(2-phenylethyl)-2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undecane				
	SUB		108 ± 0.9			[1989VOR/BAR]
$C_{14}H_{30}O_6Si$	[15188-09-7]	Vinyltris(*tert*-butylperoxy)silane				
	V		68.8 ± 0.5	298	C	[2010DIB/PAV]
$C_{14}H_{32}Si$	[10175-53-8]	Triethyloctylsilane				
	V	(347–535)	56.1	361		[1947STU]
$C_{14}H_{32}Si$	[17591-45-6]	Ethyldihexylsilane				
	V		44.8 ± 0.7	298	C	[1988VOR/BAR]
$C_{14}H_{32}Si$	[994-76-3]	Dipropyldibutylsilane				
	V		44.0 ± 0.8	298	C	[1988VOR/BAR]
$C_{14}H_{33}NSi$	[17995-32-3]	*N*,*N* dibutyl-1,1,1-triethylsilanamine				
	V		56.3 ± 1.0	298	C	[1991VOR/KLY]
$C_{14}H_{33}NSi$	[133943-79-0]	1,1,1-triethyl-*N*,*N*-bis(1-methylpropyl)silanamine				
	V		51.4 ± 0.9	298	C	[1991VOR/KLY]
$C_{14}H_{33}NSi$	[133943-81-4]	1,1,1-triethyl-*N*-octylsilanamine				
	V		59.1 ± 1.0	298	C	[1991VOR/KLY]
$C_{14}H_{42}O_2Si_6$	[1787-37-7]	bis[(pentamethyl)disilanoxy]disilane				
	V	(442–474)	62.2	457		[1962CRA/URE]
$C_{14}H_{42}O_5Si_6$	[107-52-8]	Tetradecamethyl hexasiloxane				
	V	(338–438)	68		GCRT	[2010LEI/WAN]
	V	(449–545)	56.9	464	EB	[1986FLA]
	V	(397–522)	56.6	412	A	[1987STE/MAL, 1971SKO/DIT]
$C_{14}H_{42}O_7Si_7$	[107-50-6]	Tetradecamethyl cycloheptasiloxane				
	FUS		20.88	237.7		[1971ALV/DAL]
	V	(338–418)	74		GCRT	[2010LEI/WAN]
	V	(359–537)	58.6	374	A	[1987STE/MAL, 1974BRA/KAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(431–548)	60.6	446	EB	[1986FLA]
$C_{15}H_{18}OSi$	[1825-59-8]	Methyldiphenylethoxysilane				
	V	(373–512)	72.9			[2008WU/JIA]
$C_{15}H_{21}NO_5Si$	[100446-65-9]	4-methylbenzoic acid 2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undec-1-ylmethyl ester				
	SUB		123 ± 0.9			[1989VOR/BAR]
$C_{15}H_{21}NO_6Si$	[94697-86-6]	4-methoxybenzoic acid 2,8,9-trioxa-5-aza-1-silabicyclo[3.3.3]undec-1-ylmethyl ester				
	SUB		143 ± 0.9			[1989VOR/BAR]
$C_{15}H_{34}Si$	[994-78-5]	Propyltributylsilane				
	V		45.0 ± 0.8	298	C	[1988VOR/BAR]
$C_{15}H_{34}Si$	[6485-78-5]	Tripentylsilane				
	V		48.1 ± 0.8	298	C	[1988VOR/BAR]
$C_{15}H_{34}Si$	[17922-08-6]	Triisopentylsilane				
	V		43.8 ± 0.7	298	C	[1988VOR/BAR]
$C_{15}H_{34}Si$	[17908-09-7]	Dodecyltrimethylsilane				
	V	(364–546)	62.0	379		[1947STU]
$C_{16}H_{21}Si$	[1675-57-6]	Diphenyldiethynylsilane				
	FUS		19.67	316.2		[1996DOM/HEA, 1974MIL/LEB]
$C_{16}H_{20}O_2Si$	[17964-48-6]	bis(2-methylphenoxy)dimethylsilane				
	V		63.6 ± 0.8	298	C	[1988VOR/BAR]
$C_{16}H_{20}O_2Si$	[17964-47-5]	bis(3-methylphenoxy)dimethylsilane				
	V		61.5 ± 0.8	298	C	[1988VOR/BAR]
$C_{16}H_{20}O_2Si$	[17964-49-7]	bis(4-methylphenoxy)dimethylsilane				
	V		65.3 ± 0.9	298	C	[1988VOR/BAR]
$C_{16}H_{20}O_2Si$	[2553-19-7]	Diethoxydiphenylsilane				
	V	(385–569)	71.5	399		[1947STU]
$C_{16}H_{22}O_3Si_3$	[1693-51-2]	1,1,3,3-tetramethyl-5,5-diphenylcyclotrisiloxane				
	FUS		22.19	338		[1996DOM/HEA, 1982KUL/DZH]
	V	(439–523)	66.9	481		[1974DIT/SKO]
$C_{16}H_{22}O_3Si_3$	[31751-60-7]	*cis* 1,1,3,5-tetramethyl-3,5-diphenylcyclotrisiloxane				
	V	(423–541)	66	532		[1972DIT/SKO2]
$C_{16}H_{22}O_3Si_3$	[31751-59-4]	*trans* 1,1,3,5-tetramethyl-3,5-diphenylcyclotrisiloxane				
	V	(397–535)	66.4	466		[1972DIT/SKO2]
$C_{16}H_{22}Si_2$	[17938-13-5]	1,4-bis[(trimethylsilyl)ethynyl]benzene				
	SUB	(325-384)	72.4 ± 0.6		TG-GS	[2012SEL/SAT]
	V	(394–415)	44.3 ± 0.6		TG-GS	[2012SEL/SAT]
$C_{16}H_{32}O_4Si_4$	[177-49-1]	6,12,18,24-tetraoxa-5,7,13,19-tetrasilatetraspiro[4,1,4,1,4,1,4,1]tetracosane				
	V	(452–583)	67.6	467	A	[1987STE/MAL]
	V	(452–583)	69.5	518		[1974DIT/SKO2]
$C_{16}H_{32}O_4Si_4$		Tetra(silacyclopentyl)cyclotetrasiloxane				
	V	(452–583)	69.5	517		[1974DIT/SKO2]
$C_{16}H_{36}O_3Si_2$	[349140-64-3]	11-(1,1,3,3-tetramethyldisiloxanyl)undecanoic acid, methyl ester				
	FUS		23.5	233.3		[2004RYA/LEB]
$C_{16}H_{36}O_4Si$	[4766-57-8]	Tetrabutoxysilane				
	V		52.0 ± 1.0	298	C	[1988VOR/BAR]
	V	(333–479)	79.6	348	A	[1987STE/MAL]
$C_{16}H_{40}O_4Si_4$	[1451-99-6]	Octaethyl cyclotetrasiloxane				
	TRS		12.22	208.2		
	FUS		13.71	213.4		[1990DOM/HEA, 1987DZH/KUL2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(420–574)	69.2	435	A	[1987STE/MAL]
$C_{16}H_{46}O_7Si_6$	[18143-15-2]	1,11-diethoxy-1,1,3,3,5,7,7,9,9,11,11-dodecamethylhexasiloxane				
	V	(376–547)	66.9	391	A	[1987STE/MAL]
$C_{16}H_{48}O_6Si_7$	[541-01-5]	Hexadecamethylheptasiloxane				
	V	(338–438)	89		GCRT	[2010LEI/WAN]
	V	(443–468)	63.8	459	EB	[1986FLA]
	V	(443–551)	60.8	458	A	[1987STE/MAL, 1971SKO/DIT]
$C_{16}H_{48}O_8Si_8$	[556-68-3]	Hexadecamethyl cyclooctasiloxane				
	V	(338–418)	83		GCRT	[2010LEI/WAN]
	V	(378–563)	66.6	391	A	[1987STE/MAL, 1974BRA/KAR]
	V	(454–576)	64.5	469	EB	[1986FLA]
$C_{17}H_{26}O_4Si_4$	[13093-12-4]	Hexamethyl(silaacenaphthenyl)cyclotetrasiloxane				
	V	(466–548)	68.6	507		[1974DIT/SKO2]
$C_{17}H_{32}O_2Si$	[261766-69-2]	3-methyl-3-[2-cyclohexylpropylperoxy]-1-trimethylsilyl-1-butyne				
	V	(307–318)	74.2 ± 2.0		ME	[1999DIB/LUS]
$C_{17}H_{38}Si$	[18558-18-4]	Tetradecyltrimethylsilane				
	V	(393–573)	70.9	408		[1947STU]
$C_{18}H_{15}ClSi$	[76-86-8]	Triphenylchlorosilane				
	FUS		26.88	370.6		[1996DOM/HEA, 1968KOS/MOS]
$C_{18}H_{16}Si$	[789-25-3]	Triphenylsilane				
	V	(395–457)	33.9 ± 0.2		TG-GS	[2012SEL/SAT]
$C_{18}H_{28}O_2Si_3$	[797-77-3]	1,1,1,5,5,5-hexamethyl-3,3-diphenyltrisiloxane				
	FUS		22.75	270.5		[1996DOM/HEA, 1981SHA/DZH]
$C_{18}H_{28}O_4Si_4$	[18604-02-9]	2,2,4,4,6,8-hexamethyl-6,8-diphenylcyclotetrasiloxane				
	V	(459–576)	70.5	474	A	[1987STE/MAL]
$C_{18}H_{28}O_4Si_4$	[1693-44-3]	1,1,3,3,5,5-hexamethyl-7,7-diphenylcyclotetrasiloxane				
	FUS		42.73	305		[1996DOM/HEA, 1975MEK/KAR, 1981MEK/KAR]
$C_{18}H_{40}Si$	[2929-52-4]	Trihexylsilane				
	V		51.0 ± 0.7	298	C	[1988VOR/BAR]
$C_{18}H_{40}Si$	[51502-64-8]	Ethyldioctylsilane				
	V		47.3 ± 0.7	298	C	[1988VOR/BAR]
$C_{18}H_{42}O_3Si_3$	[92411-29-5]	2,2,4,4,6,6-hexapropylcyclotrisiloxane				
	FUS		30.6	297	DSC	[1995OUT/KLO]
$C_{18}H_{48}Si_6$	[76750-22-6]	1,2,3,4,5,6-hexamethyl-1,2,3,4,5,6-hexaethylcyclohexasilane				
	TRS		3.8	226.3		
	FUS		1.8	439.2		[1986CAO/WES]
$C_{18}H_{54}O_7Si_8$	[556-69-4]	Octadecamethyl octasiloxane				
	V	(338–438)	98		GCRT	[2010LEI/WAN]
	V	(378–563)	67.7	393	A	[1987STE/MAL, 1974BRA/KAR2]
	V	(464–586)	68.4	479	EB	[1986FLA]
$C_{18}H_{54}O_9Si_9$	[556-71-8]	Octadecamethyl cyclononasiloxane				
	FUS		25.64	246.2		[1971ALV/DAL]
	V	(338–418)	91		GCRT	[2010LEI/WAN]
	V	(463–584)	67.9	478	A	[1987STE/MAL]
	V	(473–578)	68	488	EB	[1986FLA]
$C_{19}H_{15}NOSi$	[18678-65-4]	Isocyanatotriphenylsilane				
	V		67.4			[1948FOR/AND]
$C_{19}H_{18}O_3Si$	[3439-97-2]	Methyltriphenoxysilane				
	V		71.5 ± 0.9	298	C	[1988VOR/BAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{20}H_{18}Si$	[18666-68-7]	Triphenylvinylsilane				
	V	(400–464)	64.5 ± 0.5		TG-GS	[2012SEL/SAT]
$C_{20}H_{20}OSi$	[1516-80-9]	Ethoxytriphenylsilane				
	SUB		142.7 ± 1.0			[1988VOR/BAR]
	V	(440–617)	89.7	455		[1947STU]
$C_{20}H_{21}ClOSi_2$	[53634-34-7]	1,3-dimethyl-1,1,3-triphenyl-3-chlorodisiloxane				
	V	(468–626)	69.0	547		[1974DIT/SKO]
$C_{20}H_{30}O_3Si_3$	[108543-32-4]	1,1,3,3-tetraethyl-5,5-diphenylcyclotrisiloxane				
	FUS		18.37	279.1		[1996DOM/HEA, 1987DZH/KUL3]
$C_{20}H_{44}O_4Si$		tetrakis(1-ethylpropoxy)silane				
	V	(371–427)	89.2	386	A	[1987STE/MAL]
$C_{20}H_{50}Si_5$	[75217-22-0]	decaethylcyclopentasilane				
	TRS		16.3	254.8		
	FUS		1.4	440.1		[1986CAO/WES]
$C_{20}H_{58}O_9Si_8$	[18724-14-6]	1,15-diethoxy-1,1,3,3,5,5,7,7,9,9,1,1,13,13,15,15-hexadecamethyloctasiloxane				
	V	(406–585)	79.7	421	A	[1987STE/MAL]
$C_{20}H_{60}O_8Si_9$	[2652-13-3]	Eicosamethylnonasiloxane				
	V	(348–438)	107		GCRT	[2010LEI/WAN]
	V	(417–581)	85.9	432	A	[1987STE/MAL]
$C_{20}H_{60}O_{10}Si_{10}$	[18772-36-6]	Eicosamethylcyclodecasiloxane				
	FUS		39.76	265.8		[1971ALV/DAL]
	V	(358–418)	98		GCRT	[2010LEI/WAN]
	V	(480–603)	71.3	495	A	[1987STE/MAL, 1974BRA/KAR]
$C_{21}H_{22}Si$	[1747-92-8]	Tribenzylsilane				
	V	(460–637)	81.9	475	A	[1987STE/MAL, 1959GIL/TOM]
$C_{21}H_{24}OSi_2$	[14920-93-5]	1,1,3-trimethyl-1,3,3-triphenyl disiloxane				
	V	(494–624)	80	509	A	[1987STE/MAL]
	V	(495–624)	64.4	560		[1974DIT/SKO]
$C_{21}H_{24}O_3Si_3$	[6138-53-0]	*trans* 1,3,5-trimethyl-1,3,5-triphenylcyclotrisiloxane				
	FUS		43.66	320.9		[1996DOM/HEA, 1975MEK/KAR2]
	V	(483–586)	76.1	534		[1972DIT/SKO]
$C_{21}H_{24}O_3Si_3$	[3424-57-5]	*cis* 1,3,5-trimethyl-1,3,5-triphenylcyclotrisiloxane				
	FUS		43.07	374.3		[1996DOM/HEA, 1975MEK/KAR2]
	V	(473–551)	80.6	512		[1972DIT/SKO]
$C_{21}H_{46}Si$	[18753-02-1]	Triheptylsilane				
	V		57.4 ± 0.8	298	C	[1988VOR/BAR]
$C_{21}H_{46}Si$	[51502-65-9]	Methyldidecylsilane				
	V		57.4 ± 0.8	298	C	[1988VOR/BAR]
$C_{22}H_{24}O_3Si$	[55893-94-2]	Methyltris(2-methylphenoxy)silane				
	V		68.2 ± 0.9	298	C	[1988VOR/BAR]
$C_{22}H_{24}O_3Si$	[55893-95-3]	Methyltris(3-methylphenoxy)silane				
	V		66.9 ± 0.8	298	C	[1988VOR/BAR]
$C_{22}H_{24}O_3Si$	[55893-96-4]	Methyltris(4-methylphenoxy)silane				
	V		70.3 ± 0.9	298	C	[1988VOR/BAR]
$C_{22}H_{40}O_4Si$	[261766-68-1]	Dimethyldi-[3-methyl-3-*tert*-amylperoxy-1-butynyl]silane				
	V	(318–338)	92.0 ± 1.6		ME	[1999DIB/LUS]
$C_{22}H_{48}Si$	[51502-66-0]	Ethyldidecylsilane				
	V		58.7 ± 0.8	298	C	[1988VOR/BAR]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_{66}O_9Si_{10}$	[556-20-7]	Dodecamethyldecasiloxane				
	V	(368–438)	116		GCRT	[2010LEI/WAN]
$C_{22}H_{66}O_{11}Si_{11}$	[18766-38-6]	Docosamethyl cycloundecasiloxane				
	FUS		17.73	216.2		[1971ALV/DAL]
	V	(496–620)	74.5	511	A	[1987STE/MAL, 1974BRA/KAR]
$C_{23}H_{30}O_3Si_3$	[67102-99-2]	1,1,1,3,5-pentamethyl-3,5,5-triphenyltrisiloxane				
	V	(521–678)	69.8	536	A	[1987STE/MAL]
$C_{24}F_{20}Si$	[1524-78-3]	Tetra(pentafluorophenyl)silane				
	FUS		46.9	518		[2006ZEL/CHU, 2008ZEL/CHU]
	SUB	(433–517)	128 ± 1.2	475		[2006ZEL/CHU]
	V	(463–565)	80.6 ± 0.4	514		[2006ZEL/CHU]
$C_{24}H_{20}O_4Si$	[1174-72-7]	Tetraphenoxysilane				
	SUB		124.7 ± 1.2			[1988VOR/BAR]
$C_{24}H_{20}Si$	[1048-08-4]	Tetraphenylsilane				
	SUB	(428–484)	51.2	456	A	[1987STE/MAL]
	SUB		156.9 ± 1.7	298		[1978STE4]
	SUB		149.4 ± 1.7	298	ME,TE	[1974CAL/KAN]
	SUB	(428–489)	51.0		MG	[1973MCC/SMI]
	SUB		51.0			[1972NEW, 1986MAR/LOE]
$C_{24}H_{22}N_2Si$	[22519-45-5]	*N*,*N*,*N*′,*N*′-tetraphenylsilanediamine				
	V	(410–473)	59.1	425	A	[1987STE/MAL]
	V	(410–473)	57.3	441	T	[1969AYL/HAK2]
$C_{24}H_{22}Si_2$	[16343-18-3]	1,1,2,2-tetraphenyldisilane				
	V	(439–495)	75.8 ± 0.6		TG-GS	[2012SEL/SAT]
$C_{24}H_{52}O_4Si$	[7425-86-7]	Tetrahexyloxysilane				
	V	(454–573)	87.0	469	A	[1987STE/MAL]
$C_{24}H_{52}Si$	[18765-09-8]	Trioctylsilane				
	V		59.8 ± 0.8	298	C	[1988VOR/BAR]
$C_{22}H_{54}O_3Si_3$	[4452-50-0]	2,2,4,4,6,6-hexabutylcyclotrisiloxane				
	FUS		23.8	251	DSC	[1995OUT/KLO]
$C_{24}H_{72}O_{10}Si_{11}$	[107-53-9]	Dodecamethyldecasiloxane				
	V	(378–438)	124		GCRT	[2010LEI/WAN]
$C_{24}H_{72}O_{12}Si_{12}$	[18919-94-3]	Tetracosamethyl cyclododecasiloxane				
	FUS		15.45	234.2	C	[1971ALV/DAL]
	V	(508–636)	76.6	523	A	[1987STE/MAL, 1974BRA/KAR]
$C_{25}H_{40}O_2Si_2$	[71203-43-5]	Norethindrone pentamethyldisiloxy ether				
	FUS		22.9	355		[1996DOM/HEA, 1979LEW/ENE]
$C_{26}H_{26}OSi_2$	[807-28-3]	1,3-dimethyl-1,1,3,3-tetraphenyldisiloxane				
	FUS		26.58	322		[1996DOM/HEA, 1986DZH/KUL]
	V	(518–616)	93.3	533	A	[1987STE/MAL]
	V	(518–685)	64.4	602		[1974DIT/SKO]
$C_{26}H_{26}Si_2$	[1172-76-5]	1,2-dimethyl-1,1,2,2-tetraphenyldisilane				
	V	(426–506)	94.3 ± 0.4		TG-GS	[2012SEL/SAT]
$C_{26}H_{26}O_3Si_3$	[1438-86-4]	1,1-dimethyl-3,3,5,5-tetraphenylcyclotrisiloxane				
	FUS		28.2	361.1		[1996DOM/HEA, 1982KUL/DZH]
$C_{26}H_{78}O_{11}Si_{12}$	[2471-08-1]	Hexacosamethyldodecasiloxane				
	V	(388–438)	132	GCRT		[2010LEI/WAN]
$C_{27}H_{30}O_2Si$	[148960-10-5]	3-methyl-3-*tert*-butylperoxy-1-triphenylsilyl-1-butyne				
	V	(378–398)	115.9 ± 3.2		ME	[1999DIB/LUS]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{27}H_{58}Si$	[51502-67-1]	Trinonylsilane				
	V		61.8 ± 0.8	298	C	[1988VOR/BAR]
$C_{28}H_{28}O_4Si$	[16714-40-2]	tetrakis(2-methylphenoxy)silane				
	V		76.2 ± 1.0	298	C	[1988VOR/BAR]
$C_{28}H_{28}O_4Si$	[16714-54-8]	tetrakis(3-methylphenoxy)silane				
	V		73.6 ± 0.9	298	C	[1988VOR/BAR]
$C_{28}H_{28}O_4Si$	[16714-41-3]	tetrakis(4-methylphenoxy)silane				
	V		97.1 ± 1.0	298	C	[1988VOR/BAR]
$C_{28}H_{32}O_2Si$	[261766-66-9]	3-methyl-3-*tert*-amylperoxy-1-triphenylsilyl-1-butyne				
	V	(378–393)	120.3 ± 5.8		ME	[1999DIB/LUS]
$C_{28}H_{32}O_2Si_3$	[67103-00-8]	1,1,1,3-tetramethyl-3,5,5,5-tetraphenyltrisiloxane				
	V	(549–678)	82.6	564	A	[1987STE/MAL]
$C_{28}H_{32}O_2Si_3$	[67142-05-6]	1,1,3,5-tetramethyl-1,3,5,5-tetraphenyltrisiloxane				
	V	(566–666)	90.9	581	A	[1987STE/MAL]
$C_{28}H_{32}O_2Si_3$	[3982-82-9]	1,3,3,5-tetramethyl-1,1,5,5-tetraphenyltrisiloxane				
	V	(544–686)	88.3	559	A	[1987STE/MAL]
$C_{28}H_{32}O_3Si$	[167283-26-3]	[[4-[(1,1-dimethylethyl)dioxy]-4-methyl-2-pentynyl]oxy]triphenylsilane				
	V	(354–386)	87.6 ± 3.7	370		[2006DIB/MEL]
$C_{28}H_{32}O_4Si_4$	[1693-47-6]	1,1,3,3-tetramethyl-5,5,7,7-tetraphenylcyclotetrasiloxane				
	TRS		0.24	186.5		
	TRS		1.05	271.5		
	FUS		27.05	346.2	AC	[1996DOM/HEA, 1976KUL/DZH]
$C_{28}H_{32}O_4Si_4$	[77-63-4]	1,1,5′,7′-tetramethyl-1′,3′,5,7-tetraphenylcyclotetrasiloxane				
	FUS		24.62	373.4	AC	[1996DOM/HEA, 1975MEK/KAR3]
$C_{28}H_{84}O_{12}Si_{13}$	[2471-09-2]	octacosamethyltridecasiloxane				
	V	(398–438)	121		GCRT	[2010LEI/WAN]
$C_{29}H_{34}O_2Si$	[261766-67-0]	3-methyl-3-*tert*-hexylperoxy-1-triphenylsilyl-1-butyne				
	V	(383–398)	126.3 ± 3.0		ME	[1999DIB/LUS]
$C_{29}H_{44}O_6Si_2$	[179108-75-9]	4-[[1-oxo-11-(1,1,3,3-tetramethyldisiloxanyl)undecyl]oxy]benzoic acid, 4-methoxyphenyl ester				
	TRS		20.1	322		
	FUS		5.4	331		[2004RYA/LEB]
$C_{29}H_{44}O_6Si_2$	[349149-95-7]	4-methoxybenzoic acid, 4-[[1-oxo-11-(1,1,3,3-tetramethyldisioxanyl)undecyl]oxy]phenyl ester				
	TRS		24.3	324		
	FUS		4.7	334		[2004RYA/LEB]
$C_{30}H_{40}F_{30}O_3Si_4$		1,1,1,3,5,5,5-hepta(γ-trifluoropropyl)-3-tris(γ-trifluoropropyl)siloxytrisiloxane				
	V	(502–652)	64.3	671		[1974DIT/SKO3]
$C_{30}H_{64}Si$	[18765-73-6]	tris(decyl)silane				
	V		65.3 ± 0.8	298	C	[1988VOR/BAR]
$C_{30}H_{66}O_3Si_3$	[152656-68-3]	2,2,4,4,6,6-hexapentylcyclotrisiloxane				
	FUS		38.6	266	DSC	[1995OUT/KLO]
$C_{32}H_{16}Cl_2N_8Si$	[19333-10-9]	silicon phthalocyanine dichloride				
	SUB		151.3			[1972MAR/LOP]
$C_{32}H_{70}Si_{10}$	[206868-23-7]	1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-eicosamethyl-1,10-diphenyldecasilane				
	FUS		56.1	391.2		[2001YAT/MIN]
$C_{33}H_{34}O_2Si_3$	[67103-01-9]	1,1,3-trimethyl-1,3,5,5,5-pentaphenyltrisiloxane				
	V	(603–711)	91.3	618	A	[1987STE/MAL]
$C_{33}H_{34}O_2Si_3$	[3390-61-2]	1,3,5-trimethyl-1,1,3,5,5-pentaphenyltrisiloxane				
	V	(575–625)	87.3	590	A	[1987STE/MAL]
$C_{33}H_{34}O_4Si_4$	[32395-60-1]	1,3,5-trimethyl-1,3,5,7,7-pentaphenylcyclotetrasiloxane				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(523–676)	86.9	600		[1974DIT/SKO]
$C_{34}H_{76}Si_{11}$	[386719-88-6]	1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11-docosamethyl-1,11-diphenylundecasilane				
	FUS		57.8	398.2		[2001YAT/MIN]
$C_{36}H_{30}Si_2$	[1450-23-3]	Hexaphenyldisilane				
	SUB		209.2 ± 2.1	298	ME,TE	[1974CAL/KAN]
$C_{36}H_{30}Si_3O_3$	[512-63-0]	Hexaphenylcyclotrisiloxane				
	TRS		1.13	455		
	FUS		39.3	466	DSC	[2000LEB/SMI]
$C_{36}H_{78}O_3Si_3$	[105216-71-5]	2,2,4,4,6,6-hexahexylcyclotrisiloxane				
	FUS		34.6	285	DSC	[1995OUT/KLO]
$C_{42}H_{90}O_3Si_3$	[137410-95-8]	2,2,4,4,6,6-hexaheptylcyclotrisiloxane				
	FUS		64.3	299	DSC	[1995OUT/KLO]
$C_{48}H_{40}Si_4O_4$	[546-56-5]	Octaphenylcyclotetrasiloxane				
	TRS		44.8	459.2		
	FUS		1.26	473.2	DSC	[2001MAT/SHC]
	TRS		2.22	348		
	TRS		46.4	463		
	FUS		1.13	475	DSC	[2000LEB/SMI]
	TRS		2.9	349.8		
	TRS		43.8	462.8		
	FUS		1.95	478.1	DSC	[1979SMI]
$C_{48}H_{102}O_3Si_3$	[137410-92-5]	2,2,4,4,6,6-hexaoctylcyclotrisiloxane				
	FUS		66.1	313	DSC	[1995OUT/KLO]
$C_{54}H_{114}O_3Si_3$	[27397-83-7]	2,2,4,4,6,6-hexanonylcyclotrisiloxane				
	FUS		75.0	317	DSC	[1995OUT/KLO]
$C_{60}H_{126}O_3Si_3$	[27397-84-8]	2,2,4,4,6,6-hexadectylcyclotrisiloxane				
	FUS		69.1	324	DSC	[1995OUT/KLO]
AsH_9Si_3	[15110-34-6]	trisilylarsine				
	V	(258–287)	41	272		[1962AMB/BOE]
BrF_3Si	[14049-39-9]	Bromotrifluorosilane				
	V	(205–233)	18.5	219		[1936SCH/AND]
Br_2F_2Si	[14188-35-3]	Dibromodifluorosilane				
	V	(255–294)	24.9	275		[1936SCH/AND]
Br_3FSi	[18356-67-7]	Tribromofluorosilane				
	V	(305–357)	32.7	331		[1936SCH/AND]
Br_3HSi	[7789-57-3]	Tribromosilane				
	V	(273–393)	34.8	333		[1934SCH/BIC]
Br_4Si	[7789-66-4]	Silicon tetrabromide				
	V		39.4			[1951NIS/PET]
ClF_3Si	[14049-36-6]	Chlorotrifluorosilane				
	V	(215–235)	17.8	225		[1935BOO/SWI]
Cl_2FHSi	[19382-74-2]	Dichlorofluorosilane				
	V		20.2	255		[1934BOO/STI]
Cl_2F_2Si	[18356-71-3]	Dichlorodifluorosilane				
	V	(220–246)	21.0	233		[1935BOO/SWI]
Cl_2H_2Si	[4109-96-0]	Dichlorosilane				
	V	(290–350)	22.2 ± 0.7			[1986VOR/BAL]
Cl_3FSi	[14965-52-7]	Chlorotrifluorosilane				
	V	(243–288)	24.5	265		[1935BOO/SWI]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
Cl_3HSi	[10025-78-2]	Trichlorosilane				
	V	(303–325)	24.9	314		[1967LAP/NIS]
	V	(275–305)	27.2	290	I	[1954JEN/CHA]
Cl_4Si	[10026-04-7]	Silicon tetrachloride				
	FUS		7.72	204.7		[1985DEV/GUE]
	SUB	(175–204)	43.3 ± 0.1		MG	[1964BAL/DON]
	V	(298–313)	29.9	305		[1973JAI/YAD]
	V	(273–326)	30.4	288		[1964CAP/FRI]
	V	(275–330)	30.2	290	I	[1954JEN/CHA]
	V	(273–333)	30.1	303		[1936KEA]
FH_3Si	[13537-33-2]	fluorosilane				
	V	(145–167)	18.5	156		[1944EME/MAD]
FH_5Si_2	[14537-73-6]	Disilanyl fluoride				
	V	(178–227)	26.3	202	T	[1963ABE/MAC]
F_2H_2Si	[13824-36-7]	Difluorosilane				
	V	(151–167)	19.9	159		[1944EME/MAD]
F_2H_4NPSi	[36875-96-4]	Silylaminodifluorophosphine				
	V	(200–273)	34.3	236		[1972ARN/EBS]
F_3ISi	[16865-60-4]	Trifluoroiodosilane				
	V	(139–227)	21.3	183		[1973AYL/ELL2]
F_3HSi	[13465-71-9]	Trifluorosilane				
	V	(156–168)	20.1	162		[1944EME/MAD]
	V	(160–182)	16.1	176		[1934BOO/STI]
$F_3H_3Si_2$	[15195-26-3]	1,1,1-trifluorodisilane				
	SUB	(195–209)	39.2	202		[1972SOL/BUR]
F_4Si	[7783-61-1]	Silicon tetrafluoride				
	FUS		9.38	186.35		[1963PAC/MOS]
	SUB		25.9			[1931RUF/ASC]
	SUB	(148–183)	25.8			[1930PAT/PAP]
	V		14.9	188	C	[1963PAC/MOS]
	V		18.7			[1931RUF/ASC]
F_6OSi_2	[14515-39-0]	Hexafluorodisiloxane				
	V	(235–251)	21.5	243		[1945BOO/OST]
HD_3Si	[13537-02-5]	silane-d_3				
	FUS		1.24	86.8		[1969KLE/MOR]
	V	(109–129)	13.5	119	BG	[1969KLE/MOR]
H_3I_2PSi	[128166-50-7]	(Diiodophosphino)silane				
	V	(273–382)	38.9		SG	[1955AYL/EME]
H_4Si	[7803-62-5]	silane				
	FUS		1.33	88.5		[1933CLU]
H_5ClSi_2	[14565-98-1]	Disilanyl chloride				
	V	(227–273)	29.3			[1962CRA/URE]
H_5ISi_2	[14380-76-8]	Disilanyl iodide				
	V	(274–363)	33.9	318		[1960WAR/MAC]
H_7NSi_2	[5702-11-4]	Disilazane				
	V	(177–250)	23.4	213	SG	[1969AYL/HAK3]
H_9PSi_3	[15110-33-5]	trisilylphosphine				
	V	(243–284)	36.4	263		[1962AMB/BOE2]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
H_9SbSi_3	[14798-31-3]	trisilylstibine				
	V		32.0			[1963AMB/BOE]
$H_{10}Si_4$	[7783-29-1]	Tetrasilane				
	V	(273–369)	35.6		T	[1946EME/MAD]
$H_{10}OSi_4$	[14809-36-0]	bis(disilanyl) ether				
	V	(273–363)	36.4	318		[1960WAR/MAC]
I_4Si	[13465-84-4]	Silicon tetraiodide				
	FUS		19.7	393.2	AC	[1965KUR/HAS]
Sm						
$C_{15}H_{15}Sm$	[1298-55-1]	tris(cyclopendienyl)samarium(III)				
	SUB	(513–633)	109.6 ± 1.7			[1973BOR/KRA]
$C_{15}H_{21}O_6Sm$	[14589-42-5]	tris(2,4-pentanedionato)samarium(III)				
	SUB	(293–413)	U 20 ± 2			[1985SER/ZAG]
$C_{30}H_{30}F_{21}O_6Sm$	[17631-69-5]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)samarium(III)				
	SUB	(379–394)	158.6 ± 1.7		ME	[1971SWA/KAR]
$C_{33}H_{57}O_6Sm$	[15492-50-9]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)samarium(III)				
	SUB		149.7 ± 3.3	298	DSC	[1999SAN/PET]
	SUB	(378–418)	180.7	398	ME	[1981AMA/SAT]
	SUB	(430–468)	150.6	447	BG	[1969SIC/DUB]
	V	(468-500)	93.0		BG	[1969SIC/DUB]
SmI_2	[32248-43-4]	Samarium diiodide				
	V	(1008–1155)	255.9 ± 5.3	1082		[1974HIR/CAS]
Sn						
$C_2H_5Cl_3Sn$	[1066-57-5]	Ethyltin trichloride				
	V		48.8			[1958DIL/MCN]
C_3H_9BrSn	[1066-44-0]	Trimethyltin bromide				
	V		47.3 ± 4.2			[1957PED/SKI, 1982PIL/SKI]
C_3H_9ISn	[811-73-4]	Trimethyltin iodide				
	V		48.1 ± 4.2			[1957PED/SKI, 1982PIL/SKI]
$C_4H_9F_3Sn$	[754-25-6]	(trifluoromethyl)trimethyltin				
	V	(276–323)	37.5	300	T	[1960KAE/PHI]
$C_4H_{10}Cl_2Sn$	[866-55-7]	Diethyltin dichloride				
	V		52.6			[1958DIL/MCN]
$C_4H_{12}S_4Sn$	[210298-57-0]	Tetra(methylthia)tin				
	FUS		24.1	307.5	DSC	[1998FUE/STR]
$C_4H_{12}Sn$	[594-27-4]	Tetramethyltin				
	FUS		9.23	218.2	DSC	[1989SHE/RAB, 1974UTS/BAC]
	FUS	(100–230)	9.44	218.2		[1954STA/WAR]
	V	(273–350)	32.6 ± 0.2	311		[2001BAE]
	V	(313–393)	31.3		GC	[1992HAW]
	V		31.1 ± 0.1	298	C	[1980ABR/IRV]
	V		32.8 ± 0.1	298		[1970VAL]
	V		33.1 ± 1.3			[1963DAV/POP, 1982PIL/SKI]
	V		30.5	298		[1936THO/LIN]
	V	(273–308)	33.4	290	I	[1930BUL/HAU]
	V	(308–355)	31.6	331	I	[1930BUL/HAU]
	V		33.1	298	I	[1930BUL/HAU]
	V	(298–308)	31.6	303		[1929TAN/NAG]
$C_5H_9F_5Sn$	[812-35-1]	(Pentafluoroethyl)trimethyltin				
	V	(295–329)	35.6	312	T	[1960KAE/PHI]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_5H_{12}Sn$	[754-06-3]	Trimethylvinyltin				
	V		37.2 ± 2.1			[1959PED/SKI, 1982PIL/SKI]
$C_5H_{14}Sn$	[3531-44-0]	Ethyl trimethyltin				
	V		37.7 ± 1.7			[1963DAV/POP, 1982PIL/SKI]
	V	(243–381)	38.4	258		[1947STU]
	V	(273–336)	37.0	304	I	[1930BUL/HAU]
	V	(336–384)	34.9	360	I	[1930BUL/HAU]
$C_6H_{15}ClSn$	[994-31-0]	Triethyltin chloride				
	V		50.7			[1958DIL/MCN]
$C_6H_{16}Sn$	[3531-45-1]	Trimethylpropyltin				
	V	(261–405)	43.8	276		[1947STU]
	V	(286–328)	41.4	307	I	[1930BUL/HAU]
	V	(328–405)	38.0	366	I	[1930BUL/HAU]
$C_6H_{16}Sn$	[3531-46-2]	Trimethylisopropyltin				
	V		40.6 ± 2.1			[1966COL/SKI, 1982PIL/SKI]
$C_6H_{18}Sn_2$	[661-69-8]	Hexamethyldistannane				
	V		50.2 ± 4.2			[1957PED/SKI, 1982PIL/SKI]
$C_7H_{18}OSn$	[1067-21-6]	Triethylmethoxystannane				
	V	(312–435)	49.9	273	MM	[2001BAE2]
	V	(312–435)	48.7	298	MM	[2001BAE2]
$C_7H_{18}Sn$	[3531-47-3]	*tert*-butyltrimethyltin				
	V		54.0 ± 4.2			[1966COL/SKI, 1982PIL/SKI]
$C_8H_{12}Sn$	[1112-55-6]	Tetravinyltin				
	V	(313–393)	40.5		GC	[1992HAW]
$C_8H_{15}F_5Sn$	[2925-46-4]	(pentafluoroethyl)triethyltin				
	V	(303–343)	39.2	323	T	[1960KAE/PHI]
$C_8H_{18}Cl_2Sn$	[683-18-1]	Di-*n*-butyltindichloride				
	FUS		22.75	316.2		[1974UTS/BAC2]
$C_8H_{20}Sn$	[597-64-8]	Tetraethyltin				
	FUS	(110–210)	9.15	142.1		[1996DOM/HEA, 1954STA/WAR]
	V	(293–455)	46.6 ± 0.6	374		[2001BAE]
	V	(313–393)	42.4		GC	[1992HAW]
	V		50.6 ± 0.2	298	C	[1980ABR/IRV]
	V		51.0 ± 2.1			[1963DAV/POP, 1982PIL/SKI]
$C_9H_{14}Sn$	[934-56-5]	Phenyltrimethyltin				
	V		52.3 ± 4.2			[1959PED/SKI, 1982PIL/SKI]
$C_{10}H_{16}Sn$	[4314-94-7]	Benzyltrimethyltin				
	V		56.5 ± 4.2			[1959PED/SKI, 1982PIL/SKI]
$C_{10}H_{24}O_2Sn$	[14570-10-6]	Triethyltin *tert*-butylperoxide				
	V		48.8 ± 2.1			[1971RAB/KIP, 1982PIL/SKI]
$C_{10}H_{25}NSn$		(*N*,*N*-diethylamino)triethyltin				
	V		50.2 ± 4.2			[1971KOL/RAB, 1982PIL/SKI]
$C_{12}H_{20}Sn$	[7393-43-3]	Tetraallyltin				
	V	(333–393)	52.0		GC	[1992HAW]
$C_{12}H_{27}BrSn$	[1461-23-0]	Tributyltin bromide				
	V		83.7 ± 12.6			[1959PED/SKI, 1982PIL/SKI]
$C_{12}H_{27}ClSn$	[1461-22-9]	Tri-*n*-butyltin chloride				
	FUS		11.43	260.2		[1974UTS/BAC2]
$C_{12}H_{28}Sn$	[2176-98-9]	Tetrapropyl tin				
	V	(343–457)	55.0 ± 0.7	400		[2001BAE]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(333–393)	60.8		GC	[1992HAW]
	V	(361–470)	52.5	376	A	[1987STE/MAL]
	V		65.4 ± 2.5	298	C	[1980ABR/IRV]
	V		66.9 ± 2.1			[1963DAV/POP, 1982PIL/SKI]
	V		60.7			[1935JON/EVA]
$C_{12}H_{28}Sn$	[2949-42-0]	Tetraisopropyl tin				
	V	(342–441)	48.0 ± 0.7	392		[2001BAE]
	V	(333–393)	56.4		GC	[1992HAW]
	V		64.9 ± 4.2			[1966COL/SKI, 1982PIL/SKI]
$C_{12}H_{30}OSn_2$	[1112-63-6]	bis(triethyltin)oxide				
	V		52.3 ± 2.1			[1971RAB/KIP, 1982PIL/SKI]
$C_{12}H_{30}Sn_2$	[993-63-5]	Hexaethyldistannane				
	V		62.8 ± 4.2			[1966TEL/RAB, 1982PIL/SKI]
$C_{12}H_{33}NSi_2Sn$	[268208-86-2]	1,1,1-triethyl-*N*-(trimethylstannyl)-*N*-(trimethylsilyl)silanamine				
	V	(333–473)	52 ± 2	403	Static	[2013SYS/NIK]
$C_{15}H_{26}O_2Sn$		Triethyltin dimethylphenylperoxide				
	V		56.5 ± 2.1			[1971RAB/KIP, 1982PIL/SKI]
$C_{16}H_{18}Sn$	[53561-93-6]	1,1-diphenylstannolane				
	SUB		106.8 ± 5.5	298	B	[1988CAR/JAM]
$C_{16}H_{36}Sn$	[1461-25-2]	Tetrabutyl tin				
	V	(389–462)	67.8 ± 0.5	425		[2001BAE]
	V		82.8 ± 2.1			[1963DAV/POP, 1982PIL/SKI]
$C_{16}H_{36}Sn$	[3531-43-9]	Tetraisobutyl tin				
	V	(391–451)	53.6 ± 1.1	421		[2001BAE]
$C_{17}H_{20}Sn$	[19814-46-1]	Hexahydro-1,1-diphenylstannin				
	V		75.0 ± 1.5			[1988CAR/JAM]
$C_{20}H_{18}Sn$	[2117-48-8]	Triphenyl vinyl tin				
	SUB		114.1			[1985CAR/LAY]
$C_{20}H_{18}O_2Sn$	[900-95-8]	(acetyloxy)triphenylstannane				
	FUS		41.92	397.6	DSC	[1990DON/DRE]
$C_{24}H_{20}Sn$	[595-90-4]	Tetraphenyl tin				
	FUS		37.2	502.2	DSC	[1969VIC/WAL]
	SUB	(393–461)	151.7	427	A	[1987STE/MAL]
	SUB		161.1 ± 4.2	298		[1982PIL/SKI, 1969ADA/CAR2]
	SUB	(428–454)	152.5 ± 0.6		TE	[1969KEI/KAN]
	SUB	(393–461)	151.8 ± 1.1		ME	[1969KEI/KAN]
	SUB		59.5	298		[1972NEW, 1986MAR/LOE]
	SUB	(298–316)	U 66.0 ± 21.2	298	ME	[1962CAR/COO, 1970CAR/LAY]
$C_{27}H_{20}Sn$	[1247-08-1]	triphenyl phenylethynyl tin				
	SUB		137.6			[1985CAR/LAY]
$C_{32}H_{16}C_{12}N_8Sn$	[18253-54-8]	Tin(IV) phthalocyanine dichloride				
	SUB		218.4 ± 17.6		ME	[1970BON/CAT]
$C_{32}H_{16}N_8Sn$	[15304-57-1]	Tin(II) phthalocyanine				
	SUB		123.4 ± 10.0		ME	[1970BON/CAT]
$C_{36}H_{30}Sn_2$	[1064-10-4]	Hexaphenyl ditin				
	SUB		188.3 ± 4.2	298	ME,TE	[1969KEI/KAN]
$C_{44}H_{26}N_8Sn$	[29130-47-0]	Diphenyl tin(IV) phthalocyanine				
	SUB		174.9 ± 18.8		ME	[1970BON/CAT]
$C_{60}H_{78}OSn_2$	[13356-08-6]	hexakis(2-methyl-2-phenylpropyl)distanoxane				
	FUS		71.81	417.7	DSC	[1990DON/DRE]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$SnBr_2$	[10031-24-0]	Stannous bromide				
	FUS		14.2	507		[1991GAR/PRE]
	SUB	(576–923)	104.4 ± 2.0	750		[1992BRU/WAL]
	SUB	(576–923)	122 ± 3	298		[1992BRU/WAL]
	SUB	(723–893)	101.2	808		[1969KAR, 1992BRU/WAL]
	SUB	(729–884)	102.5	807		[1939FIS/GEW, 1992BRU/WAL]
$SnBr_4$	[7789-67-5]	Stannic bromide				
	SUB	(280–301)	63.3	290		[1960KEA/SMI]
	SUB	(257–299)	62.4	278		[1941SEK]
	V	(293–314)	53.0	303		[1960KEA/SMI]
SnI_4	[7790-47-8]	Stannic iodide				
	FUS		19.3	417.7		[1936NEG]
	SUB	(360–416)	88.0	388		[1978TIT/ZHA]
	SUB	(298–417)	85.5	358		[1977ZHA/TIT]
	SUB	(366–414)	75.6	390		[1941SEK]
	V	(418–523)	57.2	423		[1936NEG]
Sr						
$SnCl_2$	[10476-85-4]	Strontium chloride				
	SUB		328.9 ± 4.8	298	LE	[1965LOE/KEN]
Ta						
$C_5H_{15}O_5Ta$	[865-35-0]	Tantalum pentamethoxide				
	SUB		88.3 ± 13.4		ME,E	[1972TEL/RAB]
$C_{10}H_{25}O_5Ta$	[6074-84-6]	Pentaethyltantalate				
	V	(388–424)	72.6	403	A	[1987STE/MAL]
$TaBr_5$	[13451-11-1]	Ttantalum(V) pentabromide				
	SUB		127 ± 18	298		[1996TUR/EIC]
	SUB		121.9	298		[1996TUR/EIC, 1991KNA/KUB]
TaI_5	[14693-81-3]	Tantalum(V) pentaiodide				
	SUB	(573–655)	120.9			[1978ABA/MAL]
Tb						
$C_{15}H_{15}Ta$	[1272-25-9]	tris(cyclopentadienyl)terbium(III)				
	SUB		103.8 ± 1.7			[1973DEV/BOR]
$C_{15}H_{21}TbO_6$	[14284-95-8]	tris(2,4-pentanedionato)terbium(III)				
	FUS		40.2	374.7	DSC	[1971PRZ/BOS]
$C_{32}H_{40}F_{12}NaO_8Tb$	[12576-88-4]	Sodium tetrakis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)terbate				
	SUB	(418–473)	163 ± 3	445	T	[1993SYO/GOL]
$C_{33}H_{57}O_6Tb$	[15492-51-0]	tris(2,2,6,6-tetramethylhettane-3,5-dionato)terbium(III)				
	SUB		138.4 ± 2.6	298	DSC	[1999SAN/PET]
	SUB	(373–420)	173.6	396	ME	[1981AMA/SAT]
	SUB	(420–433)	151	426	ME	[1981AMA/SAT]
	SUB	(420–454)	141.5	437	BG	[1969SIC/DUB]
	V	(454-500)	87		BG	[1969SIC/DUB]
TbI_3	[13813-40-6]	Terbium triiodide				
	SUB	(889–995)	268.4 ± 4.4	942	ME	[1975HIR/ROM]
	SUB	(889–995)	284.5 ± 4.4	298	ME	[1975HIR/ROM]
Te						
C_2H_6Te	[593-80-6]	Dimethyl telluride				
	TRS		0.7	164.1		
	FUS		7.77	201.9		[1998SHE/NIS]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V		36.1 ± 0.6	298	C	[2014GER/PAV]
	V	(298–367)	34.4	313		[1999DYK/SVO]
	V	(273–372)	35.6 ± 0.1	323		[1997BAE, 1996BAE/POD]
	V	(267–369)	36.9	282	BG	[1996VAN/COR]
	V	(267–369)	36.1 ± 1.0	298	BG	[1996VAN/COR]
	V		37.4 ± 0.7	298	C	[1989VOR/KLY]
	V		36.0 ± 2.1			[1988TEL/LAR]
C_4H_6Te	[63000-06-6]	Divinyl telluride				
	FUS		9.59	182.6		[1999NIS/SHE]
	V		44.8 ± 0.8	298	C	[1989VOR/KLY]
	V		38.1 ± 2.1			[1988TEL/LAR]
$C_4H_{10}Te$	[627-54-3]	Diethyl telluride				
	FUS		7.62	161.5		[1996SHE/KAM]
	V	(295–411)	41.8	310		[1999DYK/SVO]
	V	(273–415)	41.6 ± 0.2	344		[1996BAE/POD]
	V		41.6 ± 0.8	298	C	[1989VOR/KLY]
$C_4H_{14}Te$	[64501-17-3]	Dipropyl telluride				
	V	(298–434)	45.5 ± 0.3	366		[1996BAE/POD]
	V		46.5 ± 0.7	298	C	[1989VOR/KLY]
$C_6H_{14}Te$	[51112-72-2]	Diisopropyl telluride				
	V	(298–399)	40.4 ± 0.1	349		[1996BAE/POD]
$C_6H_{14}Te_2$	[79971-42-9]	Dipropyl ditelluride				
	V		52.7 ± 1.0	298	C	[1989VOR/KLY]
$C_8H_{18}Te$	[38788-38-4]	Dibutyl telluride				
	V	(303–423)	53.4 ± 0.1	358		[1996BAE/POD]
	V		51.0 ± 1.0	298	C	[1989VOR/KLY]
$C_8H_{18}Te$	[83817-01-0]	Diisobutyl telluride				
	V	(303–410)	47.6 ± 0.1	356		[1996BAE/POD]
$C_8H_{18}Te$	[83817-20-3]	Di-*sec*-butyl telluride				
	V	(303–372)	49.6 ± 0.9	338		[1996BAE/POD]
$C_8H_{18}Te_2$	[77129-69-2]	Dibutyl ditelluride				
	V		57.3 ± 1.0	298	C	[1989VOR/KLY]
$C_{10}H_{22}Te$	[71475-88-2]	Dipentyl telluride				
	FUS		23.1	215.4		[1994TEL/SHE]
	V	(343–403)	59.5 ± 0.8	373		[1996BAE/POD]
$C_{10}H_{22}Te$	[110346-75-3]	Diisopentyl telluride				
	V	(343–403)	51.9 ± 0.7	373		[1996BAE/POD]
$C_{12}F_{10}Te$	[18064-76-1]	bis(pentafluorophenyl) telluride				
	FUS		16.3	322.3	DSC	[2008ZEL/CHU]
$C_{12}H_{10}Te$	[1202-36-4]	Diphenyl telluride				
	FUS		15.35	268.4		[1996TEL/SHE]
$TeBr_4$	[10031-27-3]	Tellurium tetrabromide				
	SUB		129.7 ± 2.1	298		[1974OPP/STO]
$TeCl_4$	[10026-07-0]	Tellurium tetrachloride				
	SUB		105 ± 2	298	TE	[1994DAL/FER]
	V		87.9 ± 2.1	298		[1974OPP/STO]
	V	(506–660)	77	583	GS	[1930SIM]
TeF_6	[7783-80-4]	Tellurium hexafluoride				
	SUB	(194–233)	25.6	214		[1932KLE/HEN]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
TeI_4	[7790-48-9]	Tellurium tetraiodide				
	SUB	(420–480)	95.1			[2007KUT/POL]
Th						
$C_{20}H_{16}F_{12}O_8Th$	[17500-72-0]	tetrakis(1,1,1-trifluoropentan-2,4-dionato)thorium(IV)				
	SUB		154.6	298	GS,HSA	[1986GAR/JAN]
$C_{40}H_{40}F_{28}O_8Th$	[23841-30-7]	tetrakis(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dionato)thorium(IV)				
	SUB (α)		151.2	298	GS,HA	[1986GAR/JAN]
	SUB (β)		130.6	298	GS,HA	[1986GAR/JAN]
	SUB	(344–367)	138.5 ± 3.3	355	ME	[1970SWA/KAR]
$C_{44}H_{76}O_8Th$	[18865-73-1]	tetrakis(2,2,6,6-tetramethylheptan-3,5-dionato)thorium(IV)				
	SUB	(391–409)	152.3 ± 3.3	400	ME	[1970SWA/KAR]
Ti						
(C_2H_3N)-Cl_4Ti	[13682-81-0]	Titanium trichloride–acetonitrile (1:1 complex)				
	SUB		123		T	[1970HES/PER]
$2(C_2H_3N)$-Cl_4Ti	[15227-64-2]	Titanium trichloride–acetonitrile (1:2 complex)				
	SUB		171.5		T	[1970HES/PER]
(C_4H_8O)-(Cl_4Ti)	[15005-09-1]	Titanium trichloride–tetrahydrofuran (1:1 complex)				
	SUB		140.2		T	[1970HES/PER]
$2(C_4H_8O)$-(Cl_4Ti)	[31011-57-1]	Titanium trichloride–tetrahydrofuran (1:2 complex)				
	SUB		205.4		T	[1970HES/PER]
(C_4H_8S)-(Cl_4Ti)	[14281-72-2]	Titanium trichloride–tetrahydrothiophene (1:1 complex)				
	SUB		124.3		T	[1970HES/PER]
$2(C_4H_8S)$-(Cl_4Ti)	[16893-00-8]	Titanium trichloride -tetrahydrothiophene (1:2 complex)				
	SUB		181.2		T	[1970HES/PER]
$C_5H_5Cl_3Ti$	[1270-98-0]	Cyclopentadienyltitanium trichloride				
	SUB	(354–404)	89.8	379	A	[1987STE/MAL, 1982PIL/SKI]
	SUB		104.6 ± 8.4	298		[1977TEL/RAB]
	SUB		89.1 ± 0.8			[1977BAL/BAR]
$(C_5H_{10}O)$-(Cl_4Ti)	[22538-12-1]	Titanium trichloride–tetrahydropyran (1:1 complex)				
	SUB		139.3		T	[1970HES/PER]
$2(C_5H_{10}O)$-(Cl_4Ti)	[31011-56-0]	Titanium trichloride–tetrahydropyran (1:2 complex)				
	SUB		305.4		T	[1970HES/PER]
(C_8H_8O)-(Cl_4Ti)	[31011-60-6]	Titanium trichloride–acetophenone (1:1 complex)				
	SUB		163.6		T	[1970HES/PER]
$2(C_8H_8O)$-(Cl_4Ti)	[31011-61-7]	Titanium trichloride–acetophenone (1:2 complex)				
	SUB			277.8	T	[1970HES/PER]
$C_8H_{24}N_4Ti$	[3275-24-9]	Titanium tetradimethylamide				
	V	(353–418)	53.8 ± 3.0	383		[1984BAE/MIK, 2001BAE/MIK]
$C_8H_{24}O_4Ti$	[3087-36-3]	Titanium(IV) ethoxide				
	V		84.3	448		[2009FIL/NIZ]
$C_{10}H_{10}Ti$	[1271-29-0]	bis(cyclopentadienyl)titanium				
	SUB		58.5 ± 8.0	298		[1982PIL/SKI, 1971TEL/RAB]
$C_{10}H_{10}Cl_2Ti$	[1271-19-8]	bis(cyclopentadienyl)titanium dichloride				
	SUB		124.4 ± 2.9	298	ME	[2001DIO/PIE]
	SUB	(418–533)	124.4	475.5	A	[1987STE/MAL]
	SUB		118.8 ± 2.1	298		[1982PIL/SKI, 1977TEL/RAB]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		111.7 ± 1.7			[1977BAL/BAR]
	SUB		96.2			[1969DIL/KIS, 1968KIS/DIL]
	SUB		102 ± 13	298		[2001DIO/PIE]
$C_{12}H_{10}O_2Ti$	[12129-51-0]	bis(cyclopentadienyl)dicarbonyl titanium				
	SUB		84.2 ± 3.5	298	ME	[1987DIA/DIA]
$C_{12}H_{16}Ti$	[1271-66-5]	bis(cyclopentadienyl)dimethyltitanium				
	SUB		79.5 ± 8.4	298		[1982PIL/SKI, 1977TEL/RAB]
$C_{12}H_{28}O_4Ti$	[546-68-9]	Tetraisopropyl titanate				
	V	(359–393)	55	376		[2009FIL/NIZ]
	V	(336–459)	62.3	351	A	[1987STE/MAL, 1969THO/DAV]
$C_{12}H_{28}O_4Ti$	[3087-37-4]	Tetrapropyl titanate				
	V	(411–479)	111.9	426	A	[1987STE/MAL, 1969THO/DAV]
$(C_{13}H_{10}O)$-(Cl_4Ti)	[23368-15-2]	Titanium trichloride–benzophenone (1:1 complex)				
	SUB		249.4		T	[1970HES/PER]
$2(C_{13}H_{10}O)$-(Cl_4Ti)	[31011-63-9]	Titanium trichloride–benzophenone (1:2 complex)				
	SUB		287.9		T	[1970HES/PER]
$C_{14}H_{10}F_6O_4Ti$	[1282-45-7]	bis(cyclopentadienyl)titanium bis(trifluoroacetate)				
	SUB		108.0 ± 8.0	298		[1982PIL/SKI, 1981CAL/DIA]
$C_{16}H_{36}O_4Ti$	[5593-70-4]	Tetrabutoxy titanium				
	V	(462–564)	89.7	477	A	[1987STE/MAL]
	V	(443–493)	85.0 ± 3.1	458	A	[1987STE/MAL, 1978GRA/KON]
$C_{16}H_{36}O_4Ti$	[7425-80-1]	Tetraisobutoxy titanium				
	V	(436–529)	77.4	451	A	[1987STE/MAL]
$C_{16}H_{36}O_4Ti$	[873376-17-1]	Tetra-*sec*-butoxy titanium				
	V	(378–414)	76.8	393	A	[1987STE/MAL]
	V	(370–476)	67.1	385	A	[1987STE/MAL, 1969THO/DAV]
$C_{16}H_{36}O_4Ti$	[119279-48-0]	Tetra-*tert*-butoxy titanium				
	V	(386–486)	55.9	401	A	[1987STE/MAL]
	V	(322–388)	62.6	337	SG	[1958BRA/SWA, 1984BOU/FRI]
	V		66.1 ± 3.3	298	SG	[1958BRA/SWA, 1966BRA/HIL]
$C_{16}H_{36}O_4Ti$	[5593-70-4]	Titanium(IV) tetrabutylate				
	V	(323–418)	47.6 ± 0.7	370	370	[2002BAE/SHI2]
$C_{16}H_{40}N_4Ti$		Titanium(IV) tetrakis(diethylamide)				
	V	(423–463)	94.6 ± 4.0	443	443	[2001BAE/MIK]
$C_{20}H_{44}O_4Ti$		tetrakis(1,1-dimethylpropoxy)titanium				
	V	(397–430)	67.8	412	A	[1987STE/MAL]
	V	(361–423)	71.0	376	SG	[1958BRA/SWA, 1984BOU/FRI]
	V		77.4 ± 3.8	298	SG	[1958BRA/SWA, 1966BRA/HIL]
$C_{20}H_{44}O_4Ti$		tetrakis(1-ethylpropoxy)titanium				
	V	(385–445)	103.6	400	A	[1987STE/MAL]
$C_2H_{44}O_4Ti$		tetrakis(3-methylbutoxy)titanium				
	V	(407–493)	119.7	422	A	[1987STE/MAL]
$C_{2O}H_{44}O_4Ti$	[10585-24-7]	Tetrapentoxytitanium				
	V	(484–558)	103.4	499	A	[1987STE/MAL]
$C_2H_{44}O_4Ti$	[10585-26-9]	Tetra-*tert*-pentoxytitanium				
	V	(361–423)	71.1	376	A	[1987STE/MAL]
$C_{22}H_{20}Ti$	[1273-09-2]	bis(cyclopentadienyl)diphenylltitanium				
	SUB		88 ± 8			[1982DIA/SAL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{22}H_4O_8Ti$	[852536-12-0]	bis[1,1-diemthylethyl-3-oxobutanoato]bis(2-propanolato)titanium				
	SUB		85.4			[2008KUN/SHI]
$C_{24}H_{20}O_4Ti$	[12156-48-8]	bis(benzoato)bis(η^5-2,4-cyclopentadien-1-yl)titanium				
	SUB		112 ± 8			[1981CAL/DIA]
$C_{24}H_{24}Ti$	[See Note]	bis(cyclopentadienyl)dibenzyltitanium				
	SUB		83.7 ± 8.4	298		[1982PIL/SKI, 1977TEL/RAB]
[Note: There is no reference to [1977TEL/RAB] in Chemical Abstracts under the given chemical name. Rather, *Chemical Abstracts* lists the paper under bis(cyclopentadienyl)diphenyltitanium.]						
$C_{24}H_{52}O_4Ti$		tetrakis(11-dimethylbutoxy)titanium				
	V	(414–454)	94.6	429	A	[1987STE/MAL]
$C_{24}H_{52}O_4Ti$		tetrakis(1-methyl-ethylpropoxy)titanium				
	V	(412–460)	86.2	427	A	[1987STE/MAL]
$C_{24}H_{52}O_4Ti$		tetrahexyloxy titanium				
	V	(520–581)	94.8	535	A	[1987STE/MAL]
$C_{26}H_3N_2O_4Ti$		bis(1-phenyl-3-*N*-(2-hydroxy-2-methylethylimino)-1-butanoato)titanium(IV)				
	SUB	(476–540)	164.2 ± 5.2	508	GS	[2010ARO/MAN]
$C_{28}H_{52}O_6Ti$	[80570-88-3]	diisopropoxybis(2,2,6,6-tetramethyl-3,5-heptanedionato) titanium				
	SUB	(353–413)	98.6 ± 2.7	383		[2001TUR/KRI]
	SUB	(273–403)	104.1	338		[1997KOJ/KAD, 2001TUR/KRI]
$C_{30}H_{28}Fe_2Ti$	[65274-19-3]	bis(cyclopentadienyl)diferrocenyl titanium				
	SUB		150 ± 15			[1982DIA/SAL]
Br_4Ti	[7789-68-6]	Titanium(IV) tetrabromide				
	SUB	(288–309)	67.7	299		[1960KEA/SMI]
	SUB	(283–306)	62.4	294		[1941SEK]
Cl_4Ti	[7550-45-0]	Titanium(IV) tetrachloride				
	V	(250–423)	37.5	265		[1966LUC]
	V	(363–415)	37.9	378		[1959PIK/FOS]
	V	(313–357)	39.8	335	I	[1953SCH/ZEP]
F_3Ti	[13470-08-1]	Titanium(III) trifluoride				
	SUB	(759–865)	237.2 ± 1.7	810	MS	[1967ZMB/MAR]
I_4Ti	[7720-83-4]	Titanium(IV) tetraiodide				
	V	(433–643)	58.5	538		[1947BLO/CAM]
Tl						
C_3H_9Tl	[3003-15-4]	Trimethylthallium				
	FUS		16.74	311.2		[1965PRI/JAC]
	SUB	(258–304)	57.3	285	CATH	[1965PRI/JAC, 1987STE/MAL]
	V	(311–360)	40.6	335	I,MM	[1965PRI/JAC]
	V	(328–349)	37.9	338	I	[1946GIL/JON]
$C_6H_{15}Tl$	[687-82-1]	Triethylthallium				
	V	(282–465)	41.9	297		[1947STU]
TlF	[7789-27-7]	thallium(I) fluoride				
	SUB		142.7	298		[1967KEN/CUB]
Tm						
$C_{15}H_{15}Tm$	[1272-26-0]	tris(cyclopentadienyl)thulium				
	SUB		111.3 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
	SUB		98.7 ± 1.7			[1973DEV/BOR]
	SUB	(338–438)	109.2 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{33}H_{57}O_6Tm$	[15631-58-0]	tris(2,2,6,6-tetramethylheptane-3,5-dionato)thulium(III)				
	SUB		131.3 ± 2.9	298	DSC	[1999SAN/PET]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB	(363–418)	156.1	390	ME	[1981AMA/SAT]
	SUB	(410–446)	131.4	428	BG	[1969SIC/DUB]
	V	(446–490)	84.1		BG	[1969SIC/DUB]
TmI_3	[13813-43-9]	Thulium triiodide				
	SUB	(867–990)	286.1 ± 3.7	929	ME	[1975HIR/ROM]
	SUB	(867–990)	302.1 ± 3.7	298	ME	[1975HIR/ROM]
U						
$C_6H_{18}O_6$ U	[69644-82-2]	Uranium hexamethoxide				
	SUB		102.9 ± 8.4			[1991TEL/LAR]
$C_{10}H_2F_{12}O_6$ U	[67316-66-9]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)uranium dioxide complex				
	SUB	(370–425)	147	397.5		[1987STE/MAL]
	SUB	(423–470)	147 ± 4			[1978EKS/RAN]
$C_{15}H_{15}$CIU	[11087-14-2]	tris(cyclopentadienyl)uranium chloride				
	SUB	(338–348)	115.9 ± 2.1		ME	[1971HAU, 1971HAU2]
$C_{16}H_{16}U$	*[11079-26-8]*	bis(η^8-1,3,5,7-cyclooctatetraene)uranium				
	SUB	(403–512)	108.1 ± 3.3		ME,MS	[1979TEL/RAB, 1977BED]
	SUB		114.2 ± 4.8	298		[1979TEL/RAB, 1977BED]
$C_{20}H_{20}F_{30}O_{10}U_2$	[137220-74-7]	bis[pentakis(trifluoroethoxy)]diuranium				
	SUB		NA			[1991SEV/ALI]
$C_{20}H_{22}Cl_2F_{12}O_6U$	[136211-24-0]	bis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)dichlorouranium-bis(tetrahydropyran)				
	SUB	(316–387)	79.1	352	T	[1991GIL/SAG]
$C_2H_{28}O_8U$	[65137-03-3]	tetrakis(pentane-2,4-dionato)uranium(IV)				
	SUB		148.1 ± 4.6			[1991TEL/LAR]
$C_{22}H_{38}O_6U$	[50797-86-9]	bis(2,2,6,6-tetramethylheptane-3,5-dionato)dioxouranium				
	SUB	(370–412)	151.6 ± 1.9	404	ME	[1993RIB/MON]
	SUB	(370–412)	156.9 ± 1.9	298	ME	[1993RIB/MON]
	SUB		126 ± 9			[1978EKS/RAN]
$C_{40}H_{40}F_{28}O_8U$	[23797-50-4]	tetrakis(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dione)uranium(IV)				
	SUB		68.2		BG	[1977DES]
	SUB		64.3 ± 3.2		C	[1977DES]
	SUB	(343–367)	143.5 ± 1.3	355	ME	[1970SWA/KAR]
$C_{40}H_{68}O_{12}U$	[133952-93-9]	tetrakis(2,6-dimethyl-2-methoxy-3,5-heptanedionato)uranium(IV)				
	SUB	(344–377)	121.7 ± 18	350		[1991SEV/KRA]
$C_{44}H_{76}O_8U$		tetrakis(2,2,6,6-tetramethyl-3,5-heptanedionato)uranium(IV)				
	SUB	(372–478)	152.2 ± 3.3	425	ME	[1977BED/HUS]
	SUB	(392–409)	149.0 ± 1.3	400	ME	[1970SWA/KAR]
$C_{44}H_{76}O_{12}U$	[133952-92-8]	tetrakis(2,6,6-trimethyl-2-methoxy-3,5-heptanedionato)uranium(IV)				
	SUB	(387–428)	160.7 ± 6.3	408		[1991SEV/KRA]
UF_6	[7783-81-5]	uranium hexafluoride				
	V	(337–389)		29.5	352	[1953OLI/MIL]
V						
$C_{10}H_8F_6O_5V$	[52081-94-4]	bis(1,1,1-trifluoro-2,4-pentanedionato)oxovanadium(IV)				
	SUB	(423–473)	119.7 ± 0.8			[1985MAT/KUW]
$C_{10}H_{10}C1_2V$	[12083-48-6]	bis(cyclopentadienyl)vanadium dichloride				
	SUB		140.1 ± 7.4	298	ME	[2001DIO/PIE]
$C_{10}H_{10}V$	[1277-47-0]	bis(cyclopentadienyl)vanadium				
	SUB	(323–338)	57.4	330.5	A	[1987STE/MAL]
	SUB		58.6 ± 4.2	298		[1982PIL/SKI, 1971TEL/RAB]
$C_{10}H_{14}O_5V$	[3153-26-2]	bis(2,4-pentanedionato)oxovanadium(IV)				
	SUB		140.7 ± 4.0	493	DSC	[1987MUR/HIL2]
	SUB	(418–443)	91.5	430.5	A	[1987STE/MAL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		192.4	461	C	[1986JAM/PIL]
	SUB		140.4 ± 1.1	298	C	[1986JAM/PIL]
$C_{10}H_{17}NO_5V$	[122343-53-7]	Aminebis(pentane-2,4-dionato)oxovanadium				
	SUB		29.0	370	DSC	[1989SHI/SHI]
$C_{12}H_{12}V$	[12129-72-5]	bis(benzene)vanadium				
	SUB		70 ± 10			[1982PIL/SKI]
$C_{12}H_{27}O_4V$	[1801-76-9]	Vanadic acid, tributyl ester				
	V	(395–435)	90.2	410	A	[1987STE/MAL]
$C_{12}H_{27}O_4V$	[19120-62-8]	Vanadic acid, triisobutyl ester				
	V	(383–418)	82.2	398	A	[1987STE/MAL]
$C_{12}H_{27}O_4V$	[17838-66-3]	Vanadic acid, tri-*sec*-butyl ester				
	V	(378–413)	82.4	393	A	[1987STE/MAL]
$C_{12}H_{27}O_4V$	[1686-24-4]	Vanadic acid, tri-*tert*-butyl ester				
	V	(348–385)	71.4	363	A	[1987STE/MAL]
$C_{14}H_{16}V$	[36955-47-2]	Benzene(ethylbenzene)vanadium				
	SUB	(453–483)	69.5	468		[1972UMI/VAN]
$C_{15}H_{12}F_9O_6V$	[15695-88-2]	tris(1,1,1-trifluoro-2,4-pentanedionato)vanadium(III)				
	SUB	(383–433)	118.4 ± 2.1			[1985MAT/KUW]
$C_{15}H_{18}V$	[36955-49-4]	Benzene(isopropylbenzene)vanadium				
	SUB	(453–483)	83.7	468		[1972UMI/VAN]
$C_{15}H_{18}BrNO_5V$	[24263-16-9]	3-bromopyridinebis(acetylacetonato)oxovanadium				
	SUB		59.4	402	DSC	[1989SHI/SHI]
$C_{15}H_{19}NO_5V$	[24263-31-8]	Pyridinebis(acetylacetonato)oxovanadium				
	SUB		47.8	404	DSC	[1989SHI/SHI]
$C_{15}H_{21}O_6V$	[13476-99-8]	tris(2,4-pentanedionato)vanadium(III)				
	FUS		30.0	460		[1971BEE/LIN2]
	FUS		23.8	460		[1970MEL/MER2]
	SUB		102.9 ± 0.8	298	HSA	[1970MEL/MER, 1970MEL/MER2]
$C_{15}H_{18}NO_5V$	[24263-13-6]	3-cyanopyridinebis(acetylacetonato)oxovanadium				
	SUB		79.0	391	DSC	[1989SHI/SHI]
$C_{16}H_{18}N_2O_5V$	[24263-14-7]	4-cyanopyridinebis(acetylacetonato)oxovanadium				
	SUB		75.6	399	DSC	[1989SHI/SHI]
$C_{16}H_{20}V$	[36955-48-3]	bis(ethylbenzene)vanadium				
	SUB	(453–483)	72.0	468		[1972UMI/VAN]
$C_{16}H_{21}NO_5V$	[24263-33-0]	4-methylpyridinebis(acetylacetonato)oxovanadium				
	SUB		56.9	421	DSC	[1989SHI/SHI]
$C_{18}H_{24}V$	[36472-53-4]	bis(isopropylbenzene)vanadium				
	SUB	(453–483)	86.2	468		[1972UMI/VAN]
$C_{32}F_{16}N_8OV$	[128675-60-5]	(hexadecafluorophthalocyaninato)oxovanadium				
	SUB	(590–670)	220.5 ± 4.2	630	ME	[2008SEM/BAS, 2006SEM/BAS]
$C_{32}H_{16}N_8OV$	[13930-88-6]	Oxovanadium phthalocyanine				
	SUB	(593–678)	223.0 ± 3.3	636	ME,MS	[2013TVE/GIR]
	SUB	(578–672)	194.6 ± 2.9	625	ME	[2008SEM/BAS, 2006SEM/BAS]
$C_{48}H_{48}N_4OV$	[84214-50-6]	Oxo[2,9,16,23-tetra-*tert*-butylphthalocyaninato] vanadium				
	SUB	(315–440)	187.4 ± 12.6		ME	[2010PLY/BAS]
VF_5	[7783-72-4]	Vanadium(V) pentafluoride				
	SUB	(252–293)	49.9	272	SPG	[1957CLA/EME]
	V	(293–318)	46.6	305	SPG	[1957CLA/EME]

W

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
C_6O_6W	[14040-11-0]	Tungsten hexacarbonyl				
	FUS		26.39	444.63	DSC	[2013BER/CAN]
	FUS		27.2	439.2	DSC	[1976FAB/MAS]
	SUB		77.8 ± 0.3	298	C	[2013BER/CAN]
	SUB		77.7 ± 0.6		TE	[2005CHA/LAU]
	SUB	(265–288)	77.7	276	TE	[1995GAR/CHA]
	SUB	(265–288)	76.9 ± 1.6	298	TE	[1995GAR/CHA, 2013BER/CAN]
	SUB	(338–423)	74.9 ± 1.3			[1993BAE]
	SUB	(333–433)	74.4	348	A	[1987STE/MAL]
	SUB	(250–292)	78.9 ± 1.1	271	ME	[1980BOX/ERN, 1979DAA/ERN]
	SUB	(250–292)	78.3 ± 2.0	298	ME	[1980BOX/ERN, 2013BER/CAN]
	SUB		73.2	298	C	[1975ADE/BRO]
	SUB		76.5 ± 1.3			[1975PIL/WAR]
	SUB	(339–410)	69.7			[1952REZ/SHV]
	SUB		74.1			[1935HIE/ROM]
$C_7H_3NO_5W$	[15096-68-1]	Acetonitrile tungsten pentacarbonyl				
	SUB	(271–303)	98.1 ± 2.0	298		[1980CAV/ERN]
$C_8H_4N_2O_5W$	[39017-11-3]	Pyrazole(pentacarbonyl)tungsten				
	SUB	(287–327)	112.5 ± 2.4	307	ME	[1979DAA/ERN]
$C_8H_6N_2O_4W$	[16800-45-6]	bis(acetonitrile)tetracarbonyltungsten				
	SUB	(294–313)	131.0 ± 6.0	298		[1980CAV/ERN]
$C_8H_9NO_5W$	[15228-32-7]	Trimethylamine(pentacarbonyl)tungsten				
	SUB		89.1 ± 2.1			[1979DAA/ERN, 1980BOX, 1980BOX/ERN]
$C_8H_9O_5PW$	[26555-11-3]	Trimethylphosphine(pentacarbonyl)tungsten				
	SUB	(283–327)	93.8 ± 1.5	305	ME	[1980BOX/ERN]
$C_9H_4N_2O_5W$	[65761-19-5]	Pyrazine(pentacarbonyl)tungsten				
	SUB	(287–321)	108.4 ± 1.3	304	ME	[1979DAA/ERN]
$C_9H_4N_2O_5W$	[65761-20-8]	Pyridazine(pentacarbonyl)tungsten				
	SUB		106.4 ± 2.5			[1979DAA/ERN, 1980BOX, 1980BOX/ERN]
$C_9H_9N_3O_3W$	[16800-47-8]	tris(acetonitrile) tungsten tricarbonyl				
	SUB	(308–333)	103.4 ± 6.0	298		[1980CAV/ERN]
$C_{10}H_5NO_5W$	[14586-49-3]	Pyridine(pentacarbonyl)tungsten				
	SUB	(285–313)	109.7 ± 2.7	299	ME	[1979DAA/ERN]
$C_1H_8O_3W$	[12128-81-3]	Cycloheptatrienetungstentricarbonyl				
	SUB		92	298	C	[1977BRO/CON, 1982PIL/SKI]
$C_1H_{10}Cl_2W$	[12184-31-5]	Dichlorobis(η^5-2,4-cyclopentadien-1-yl)tungsten				
	SUB		120.7 ± 8.6	298	ME	[2001DIO/PIE]
	SUB		104.6 ± 4.2			[1976TEL/RAB]
$C_{10}H_{10}I_2W$	[12184-31-5]	bis(η^5-2,4-cyclopentadien-1-yl)diiodotungsten				
	SUB		104.6 ± 4.2			[1976TEL/RAB]
$C_{1O}H_{11}NO_5W$	[31082-68-5]	Piperidine(pentacarbonyl)tungsten				
	SUB	(289–327)	106.4 ± 1.0	308	ME	[1979DAA/ERN]
$C_{10}H_{12}W$	[1271-33-6]	Dicyclopentadienyltungsten dihydride				
	SUB	(313–323)	84.6 ± 1.6		ME	[1990DIA/DIO]
	SUB		96.2 ± 2.1	298		[1982PIL/SKI, 1979CAL/DIA, 1976TEL/RAB]
$C_{12}H_{12}W$	[12089-23-5]	Dibenzene tungsten				
	SUB		106	298	ME	[1974ZOR/UMI]
$C_{12}H_{16}W$	[39333-53-4]	bis(η^5-2,4-cyclopentadien- 1-yl)dimethyltungsten				
	SUB		74.6 ± 4.2			[1980DEP]
$C_{12}H_{36}N_6W$	[68941-84-4]	Hexakis(dimethylamino)tungsten				
	SUB		164.0 ± 5	461	C	[1979ADE/CAV]
	SUB		89.1 ± 7	298	C	[1979ADE/CAV]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{12}H_{36}N_6W_2$	[54935-70-5]	Hexakis(dimethylamino)ditungsten				
	SUB		186.5 ± 5	451	C	[1979ADE/CAV]
	SUB		113.3 ± 6	298	C	[1979ADE/CAV]
$C_{23}H_{15}O_5PW$	[26555-11-3]	Triphenylphosphine(pentacarbonyl)tungsten				
	SUB	(340–364)	162.2 ± 8.3	352	ME	[1980BOX/ERN]
$C_{23}H_{15}O_8PW$	[23306-41-4]	Triphenylphosphite(pentacarbonyl)tungsten				
	SUB	(308–348)	1202 ± 6.6	328	ME	[1980BOX/ERN]
WCl_4O	[13520-78-0]	Tungsten(IV) oxychloride				
	SUB	(396–447)	63.7 ± 1.7	421	DSM	[1983CAS/PON]
WF_6	[7783-82-6]	Tungsten hexafluoride				
	SUB		36.4			[1931RUF/ASC]
	V	(290–343)	25.8	316		[1968NIS/NIK]
	V		26.1			[1931RUF/ASC]
WO_3	[1314-35-8]	Tungsten oxide				
	SUB	(1373–1473)	175.7	1423		[1956GLE/VOL]
Xe						
XeF_2	[13709-36-9]	Xenon difluoride				
	V	(553–663)	53.5	568		[1983HOU]
XeF_4	[13709-61-0]	Xenon tetrafluoride				
	V	(553–663)	60.0	568		[1983HOU]
Y						
$C_{15}H_3F_{18}O_6Y$	[18911-76-7]	tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)yttrium(III)				
	SUB	(310–365)	91.6 ± 8.5		ME	[1999ALI/MAL]
$C_{15}H_{15}Y$	[1294-07-1]	tris(cyclopentadienyl)yttrium				
	SUB		111.7 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
	SUB		99.2 ± 3.3			[1973DEV/BOR]
$C_{15}H_{21}O_6Y$	[15554-47-9]	tris(2,4-pentanedionato)yttrium(III)				
	FUS		48.1	375.2	DSC	[1971PRZ/BOS]
	SUB		98 ± 16			[1984TRE/BER]
$C_{33}H_{57}O_6Y$	[15632-39-0]	tris(2,2,6,6-tetramethylheptan-3,5-dionato)yttrium(III)				
	FUS		51.8	440		[2004FUL/RUZ2]
	SUB	(395–434)	141.6			[2004FUL/RUZ2]
	SUB	(358–387)	151.0 ± 0.8	372	TE	[2001COL/LAU]
	SUB	(357–377)	153.1 ± 0.4	366	TE	[2001COL/LAU]
	SUB	(403–433)	135.9		TG,DTA	[1997YUA/YAN]
	SUB		117.0			[1997SAN/ROC]
	SUB	(382–412)	126.0	397	T	[1996RAP/DES]
	SUB		117.0			[1993TOB/LAN]
	SUB		115.7			[1993TOB/LAN]
	SUB		136.1		GS	[1990YUH/KIK]
	SUB		167.3			[1990YUH/KIK, 1988ABE/OGA]
	SUB	(363–418)	156.9	388	ME	[1981AMA/SAT]
	SUB		130.8		ME	[1973BRU/CUR]
	V	(450–455)	89.5			[2004FUL/RUZ2]
	V		66.7		GS	[1990YUH/KIK]
	V		68.3			[1990YUH/KIK, 1988ABE/OGA]
$C_{32}H_{40}F_{12}O_8NaY$	[12576-89-5]	Sodium tetrakis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)yttrate				
	SUB	(418–503)	130 ± 3	460	T	[1993SYO/GOL]
	SUB	(463–503)	142 ± 12	483		[1993SYO/GOL]
Yb						
$C_{15}H_{15}Yb$	[1295-20-1]	tris(cyclopentadienyl)ytterbium				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		108.8 ± 3.5	298		[1982PIL/SKI, 1974DEV/RAB]
	SUB		96.2 ± 2.9			[1973DEV/BOR]
$C_{15}H_{21}O_6Yb$	[14284-98-1]	tris(2,4-pentanedionato)ytterbium(III)				
	SUB	(364–404)	93.3	384		[1981SMI/MAR]
$C_{30}H_{30}F_{21}O_6Yb$	[18323-96-1]	tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyloctane-4,6-dionato)ytterbium(III)				
	SUB	(339–356)	154.8 ± 3.3		ME	[1971SWA/KAR]
$C_{33}H_{57}O_6Yb$	[15492-52-1]	tris(2,2,6,6-tetramethylpentane-2,4-dionato)ytterbium(III)				
	SUB		131.1 ± 2.7	298	DSC	[1999SAN/PET]
	SUB	(363–413)	156.9	388	ME	[1981AMA/SAT]
	SUB	(410–444)	133.3	427	BG	[1969SIC/DUB]
	V	(444–494)	82.8		BG	[1969SIC/DUB]
Zn						
C_2H_6Zn	[544-97-8]	Dimethyl zinc				
	TRS		1.06	210.3		
	FUS		6.83	230.1		[1996DOM/HEA, 1984SHE/NIS]
	V	(273–316)	29.5 ± 0.2			[2012GER/PAV]
	V		29.4 ± 0.4	298	C	[2012GER/PAV]
	V	(273–313)	30.4 ± 0.1			[1997BAE]
	V		29.5 ± 0.4			[1949CAR/HAR, 1982PIL/SKI]
	V	(248–318)	29.9	283	BG	[1946BAM/LEV]
$C_4H_{10}Zn$	[557-20-0]	Diethyl zinc				
	FUS	(18–273)	18.05	239.8		[1987GIB/GRI]
	V	(273–363)	38.0 ± 2.3	318	T	[2014GER/PAV]
	V		41.7 ± 0.5	298	C	[2014GER/PAV]
	V		37.9	298		[1983HOU2]
	V		40.2 ± 2.1			[1949CAR/HAR, 1982PIL/SKI]
	V	(250–391)	39.9	265		[1947STU]
	V		40.2		BG	[1946BAM/LEV]
$C_4H_{16}Cl_2N_8S_4Zn$	[28813-20-9]	*trans*-dichloro-tetrakis(thiourea)zinc(II)				
	SUB	(351–382)	90 ± 20			[1970ASH]
$C_6H_{14}Zn$	[628-91-1]	Dipropyl zinc				
	V	(313–370)	42.1 ± 0.4	341		[1984SOK/BAE2]
	V		45.6 ± 2.5			[1949CAR/HAR, 1982PIL/SKI]
	V		39.5			[1949HAT/SUT]
	V		40.3		BG	[1946BAM/LEV]
$C_6H_{14}Zn$	[625-81-0]	Diisopropyl zinc				
	V	(303–345)	41.8 ± 0.5	324		[1984SOK/BAE2]
	V	(310–338)	47.4	324		[1946THO]
$C_8H_{18}Zn$	[1119-90-0]	Dibutyl zinc				
	V	(305–379)	50.7 ± 0.3	342		[1984SOK/BAE3]
	V		54.4 ± 3.3			[1949CAR/HAR, 1982PIL/SKI]
	V		45.3			[1949HAT/SUT]
	V		42.9		BG	[1946BAM/LEV]
$C_8H_{18}Zn$	[7446-94-8]	Di-*sec*-butyl zinc				
	V	(287–372)	40.9 ± 0.2	330		[1984SOK/BAE3]
$C_8H_{18}Zn$	[1854-19-9]	Diisobutyl zinc				
	V	(288–372)	44.6 ± 0.2	330		[1984SOK/BAE3]
$C_8H_{18}Zn$	[16636-96-7]	Di-*tert*-butyl zinc				
	FUS		45.3	300		[1984SOK/BAE]
	V	(300–322)	49.3 ± 0.8	311		[1984SOK/BAE3]
$C_{10}H_{14}O_4Zn$	[14024-63-6]	bis(2,4-pentanedionato)zinc(II)				

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	SUB		132.6 ± 8	298	C	[1985MUR/SAK, 1988RIB/PIL]
	SUB		117 ± 3			[1980SAC/HIL]
$C_{10}H_{20}N_2S_4Zn$	[14324-55-1]	bis(diethyldithiocarbamate)zinc(II)				
	SUB		115 ± 15	298	DSC,E	[2000DEA/SOU]
	SUB	(401–444)	143.1	422.5	A	[1987STE/MAL]
	SUB		142.7 ± 2.5		GC	[1976TAV/NEE]
$C_{10}H_{22}Zn$	[14402-93-8]	Dipentyl zinc				
	V		48.6			[1949HAT/SUT]
$C_{12}H_{26}Zn$	[13822-55-4]	Dihexyl zinc				
	V		56.2			[1949HAT/SUT]
$C_{14}H_{28}N_2S_4Zn$	[15694-56-1]	bis(dipropyldithiocarbamate)zinc(II)				
	SUB		147 ± 2	298	DSC,E	[1992DEC/AIR]
$C_{14}H_{30}Zn$	[14402-95-0]	Diheptyl zinc				
	V		62.3			[1949HAT/SUT]
$C_{18}H_{12}N_2O_2Zn$	[13978-85-3]	bis(8-hydroxyquinolinato)zinc(II)				
	SUB		183.2 ± 6.3	298	ME	[1994RIB/MAT]
	SUB	(473–513)	167.9 ± 6	493	ME	[1984BUR/MOR]
	SUB		178 ± 6	298		[1984BUR/MOR]
$C_{18}H_{36}N_2S_4Zn$	[136-23-2]	bis(dibutyldithiocarbamate)zinc(II)				
	SUB		107 ± 3	298	DSC,E	[1991DES/DES]
$C_{18}H_{36}N_2S_4Zn$	[36190-62-2]	bis(diisobutyldithiocarbamate)zinc(II)				
	SUB		283 ± 2	298	DSC,E	[1994SOU/PIN]
$C_{20}H_{16}N_2O_2Zn$	[14128-73-5]	bis(8-hydroxy-2-methylquinolinate)zinc(II)				
	SUB	(437–556)	172.0 ± 5.0	541	ME	[1998RIB/MAT3]
	SUB	(437–556)	179.4 ± 5.0	298	ME	[1998RIB/MAT3]
$C_{22}H_{38}O_4Zn$	[14363-14-5]	bis(2,2,6,6-tetramethylheptan-3,5-dianato)zinc(II)				
	SUB		136		ME	[1973BRU/CUR]
$C_{22}H_{44}N_2S_4Zn$	[15337-18-5]	bis(dipentyldithiocarbamate)zinc(II)				
	SUB		127 ± 3	298	DSC,E	[2000DEA/SOU]
$C_{32}F_{16}N_8Zn$	[14320-04-8]	1,2,3,4,8,9,10,11,15,16,17,18,22,23,24,25-hexadecafluorophthalocyanine zinc(II)				
	SUB	(658–711)	236.4 ± 1.7	685	ME	[2008SEM/BAS, 2006SEM/BAS]
$C_{32}H_{16}N_8Zn$	[14320-04-8]	Zinc(II)phthalocyanine				
	SUB	(693–813)	207.5 ± 0.5		TGA	[2013SHA/SHT]
	V	(664–709)	202.3 ± 7.5	686	ME	[2008SEM/BAS, 2006SEM/BAS]
[Note: The authors of [2013SHA/SHT] refer to the value as the enthalpy of sublimation; while the authors of [2006SEM/BAS] refer to the value as the vaporization enthalpy.]						
$C_{44}H_{28}N_4Zn$	[14074-80-7]	5,10,15,20-tetraphenylphorphine zinc(II)				
	FUS		54.9	770.4	DSC	[2010GAM/CAM]
	SUB	(555–567)	183 ± 3	559	ME	[2002PAT/CAM]
	SUB	(555–567)	196 ± 3	298	ME	[2002PAT/CAM]
	SUB		208 ± 4		GS	[2000PER/GOL]
	SUB	(563–663)	213 ± 3			[1994PER/NAN, 2002PAT/CAM]
	SUB		109	666	UV/Vis	[1971EDW/DOL, 2002PAT/CAM]
$C_{48}H_{36}N_4O_4Zn$	[57715-42-1]	(5,10,15,20-tetrakis(4-methoxyphenyl)porphyrinato)zinc				
	TRS		2.36	313		[2007PAT/CAM]
	SUB	(583–593)	223.7 ± 4.4	588	ME	[2007PAT/CAM]
	SUB	(583–593)	238.2 ± 4.4	298	ME	[2007PAT/CAM]
Br_2Zn	[7699-45-8]	Zinc bromide				
	FUS		15.5	675	C	[1964CUB/ELD]
	SUB	(453–574)	115.3 ± 2.1	514	ME,MS	[2014IIZ/SHI]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
	V	(701–923)	118.6	812	BP	[1958BLO/BOC]
Cl_2Zn	[7646-85-7]	Zinc chloride				
	FUS		10.3	591	AC	[1964CUB/ELD]
	V	(695–826)	134.5	760		[1958BLO/WEL]
	V	(743–963)	126.6	851	BP	[1958BLO/BOC]
F_2Zn	[7783-49-5]	Zinc fluoride				
	SUB	(846–1047)	239.5 ± 7.7	946	TE	[2008BRU/LEL]
	SUB	(901–1125)	252.4	1015	ME	[1973BIE/EIC]
Zr						
$C_{10}H_{10}Cl_2Zr$	[1291-32-3]	bis(cyclopentadienyl)zirconium dichloride				
	SUB		108.5 ± 4.6	298	ME	[2001DIO/PIE]
	SUB	(393–457)	100.3	425	A	[1987STE/MAL]
	SUB		105.0 ± 2.1	298		[1982PIL/SKI, 1976KIR/TEL]
	SUB		100.4 ± 1.7			[1977BAL/BAR]
	SUB		96.7			[1969DIL/KIS]
	SUB		103 ± 13	298		[1968KIS/DIL, 2001DIO/PIE]
	V	(408–449)	87 ± 5			[2008ARU/MAT]
$C_{12}H_{16}Zr$	[1291-32-3]	bis(cyclopentadienyl)dimethylzirconium				
	SUB		81.2 ± 2.1	298		[1982PIL/SKI, 1976KIR/TEL]
$C_{12}H_{36}N_4Zr$	[175923-04-3]	tetrakis(methylethylamino)zirconium(IV)				
	SUB	(278–333)	79.4 ± 2.4		ME	[2009MON/NUT]
[Note: The authors state in the paper that the compound is a liquid at room temperature. Figure 3 in the paper shows that the plot of ln P versus 1/T is linear over the entire temperature range. The authors refer to the enthalpy as the enthalpy of sublimation. We have taken the value to be the enthalpy of vaporization given the authors' statement that the compound is a liquid. The compound's melting point temperature is unknown.]						
$C_{16}H_{36}O_4Zr$		Tetra-*tert*-butoxy zirconium				
	V	(374–587)	56.6	389	A	[1987STE/MAL]
$C_{20}H_4F_{24}O_8Zr$	[19530-02-0]	tetrakis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato)zirconium(IV)				
	SUB	(333–363)	59.0		TGA	[2000FAH/BAR]
	V	(366–456)	48.6 ± 0.6	411	T	[1996MOR/SYS]
$C_{20}H_{16}F_{12}O_8Zr$	[17499-68-2]	tetrakis(1,1,1-trifluoro-2,4-pentanedionato)zirconium(IV)				
	SUB	(373–403)	94		TGA	[2000FAH/BAR]
	SUB	(368–398)	133.6 ± 2.0	383	SMZG	[1996MOR/SYS]
	SUB		118.7 ± 3.1	298	C	[1992RIB/FER2]
	SUB	(383–438)	126.4 ± 1.7		GS	[1985MAT/KUW]
	SUB	(383–438)	119.2 ± 1.7		GS	[1985MAT/KUW]
$C_{20}H_{28}O_8Zr$	[17501-44-9]	tetrakis(2,4-pentanedionato)zirconium(IV)				
	SUB	(413–443)	126		TGA	[2000FAH/BAR]
	SUB	(403–433)	138.8 ± 2	418	SMZG	[1996MOR/SYS]
	SUB		125.8 ± 2.9	298	C	[1992RIB/FER2]
	SUB		132.0 ± 6.8	463		[1987MUR/HIL2]
	SUB		116 ± 34			[1984TRE/BER]
$C_{20}H_{40}O_8Zr$	[228997-54-4]	Zirconium(IV) pivalate				
	SUB	(403–482)	168.1 ± 8.2	443		[2006KUZ/ALT]
$C_{20}H_{44}O_4Zr$		tetrakis(1,1-dimethylpropoxy)zirconium				
	V	(392–426)	68	407	A	[1987STE/MAL]
$C_{20}H_{44}O_4Zr$		Tetra-*tert*-pentoxyzirconium				
	V	(361–435)	74.1	361	A	[1987STE/MAL]
$C_{22}H_{20}Zr$	[51177-89-0]	bis(cyclopentadienyl)diphenylzirconium				
	SUB		92.0 ± 4.2			[1976KIR/TEL]
$C_{24}H_{52}O_4Zr$		tetrakis(1,1-dimethylbutoxy)zirconium				
	V	(406–449)	93.3	421	A	[1987STE/MAL]

TABLE 17. Phase change enthalpies of organometallic and inorganic compounds—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	References
$C_{24}H_{52}O_4Zr$		tetrakis(1-methyl-1-ethylpropoxy)zirconium				
	V	(423–460)	91.4	438	A	[1987STE/MAL]
$C_{32}H_{40}F_{12}O_8Zr$	[56044-44-1]	tetrakis(1,1,1-trimethyl-5,5,5-trifluoro-2,4-pentanedionato)zirconium(IV)				
	SUB	(388–423)	134.9 ± 1.6	406	SMZG	[1996MOR/SYS]
	V	(394–425)	71 ± 1			[2008ARU/MAT]
$C_{44}H_{76}O_8Zr$	[18865-74-2]	tetrakis(2,2,6,6-tetramethylheptan-3,5-dionato)zirconium(IV)				
	TRS		11.6	446		
Note: The value also includes the enthalpy of the solid/solid transition at 438 K.						
	FUS		5.7	616	DSC	[2008ZHE/MOR]
	TRS		4.86	387.1		
	TRS		16.38	430.3		[2004FUL/RUZ2]
	SUB	(411–463)	85.4	437	GS	[2008JEE/ARO]
	SUB	(413–443)	120		TGA	[2000FAH/BAR]
$ZrCl_4$	[10026-11-6]	Zirconium tetrachloride				
	SUB	(405–518)	98.9 ± 0.5	512	T	[1994TAN/BOS]
ZrF_4	[7783-64-4]	Zirconium tetrafluoride				
	SUB	(685–828)	228	756	TE	[2011BRU/PIA]
	SUB	(685–828)	239 ± 2	298	TE	[2011BRU/PIA]
	SUB	(696–856)	240.0 ± 0.1	298	TE	[1994KON/HIL]
	SUB	796	243	298	MS	[1965SID/AKI, 1994KON/HIL]
	SUB	(983–1177)	241.1 ± 0.1	298		[1964FIS/PET, 1994KON/HIL]
	SUB	(681–913)	242.6 ± 1.7	298	MS	[1963AKA/BEL, 1994KON/HIL]
	SUB	(713–873)	232.3 ± 1.2	298		[1963GAL/TUM, 1994KON/HIL]
	SUB	(983–1081)	239.9 ± 0.2	298		[1958CAN/NEW, 1994KON/HIL]
	SUB	(890–1150)	241.8 ± 0.6	298	GS	[1954SEN/SNY2, 1994KON/HIL]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
CH_6BrN	[6876-37-5]	Methylammonium bromide				
	TRS		1.60	394.3		
	TRS		3.51	485.0		
	FUS		8.34	522.7	DSC	[1990GEN/LUB]
CH_6BrN	[6876-37-5]	Methylammonium bromide				
	TRS		1.60	397.7		
	TRS		3.51	488.4		
	FUS		8.34	531.9	DSC	[1996DOM/HEA, 1990GEN/LUB]
	TRS		1.28	389.0		[1967TSA/GIL]
CH_6C1N	[593-51-1]	Methylammonium chloride				
	TRS		1.78	220.4		
	TRS		2.82	264.5		[1996DOM/HEA, 1946AST/ZIE]
$C_2H_8BF_4N$	[16970-97-1]	Dimethylammonium tetrafluoroborate				
	TRS		7.50	283.5		
	FUS		3.50	375		[1996DOM/HEA, 1992ISH/IWA]
C_2H_8BrN	[593-55-5]	Ethylammonium bromide				
	TRS		12.07	369.9		
	FUS		8.52	439.5	DSC	[1996DOM/HEA, 1990GEN/LUB]
	TRS		11.30	363		
	FUS		8.37	434		[1967TSA/GIL]
C_2H_8C1N	[506-59-2]	Dimethylammonium chloride				
	V	(429–533)	95.6	444	A,I	[1987STE/MAL, 1967KIS]
	V	(533–569)	143.9	548	A,I	[1987STE/MAL, 1967KIS]
C_2H_8C1N	[557-66-4]	Ethylammonium chloride				
	V	(382–480)	34.3	397	A,I	[1987STE/MAL, 1967KIS]
$C_3H_8N_2$	[51283-80-8]	Dimethyl ammonium cyanide				
	V	(251–295)	49.0	280	A	[1987STE/MAL, 1973DIE/MAR]
$C_3H_{10}BrN$	[4905-83-3]	Propylammonium bromide				
	FUS		13.3	464.6	DSC	[1996DOM/HEA, 1990GEN/LUB]
	FUS		12.51	456		[1967TSA/GIL]
$C_4H_5N_3O_3$	[156204-43-2]	1-methylimidazolium nitrate				
	FUS		19.2	342.6	DSC	[2009EME/VER3]
$C_4H_{10}N_2$	[28871-28-5]	Trimethylammonium cyanide				
	SUB	(219–236)	45.0	227.5		[1987STE/MAL]
$C_4H_{11}NO_3$	[54300-24-2]	2-(hydroxyethyl)ammonium acetate				
	FUS		15.7	336	DSC	[2014PEN/UUS]
$C_4H_{12}BF_4N$	[661-36-9]	Tetramethylammonium tetrafluoroborate				
	TRS		0.5	154		
	TRS		1.7	601	DSC	[1987ZAB/FER]
$C_4H_{12}BrN$	[6274-12-0]	Diethylammonium bromide				
	TRS		2.2	283		
	TRS		1.6	329		
	TRS		2.3	342		
	FUS		10.4	481	DSC	[1997SHI/TAN]
$C_4H_{12}ClN$	[3858-78-4]	Butylammonium chloride				
	V	(489–508)	62.1	498	A,I	[1987STE/MAL, 1967KIS]
$C_4H_{12}ClN$	[75-57-0]	Tetramethylammonium chloride				
	TRS		9.91	536	DSC	[1996DOM/HEA, 1970MUR/BRE]
	TRS	(5–350)	0.18	75.76		
	TRS	(5–350)	0.28	184.45	AC	[1996DOM/HEA, 1962CHA/WES]
$C_4H_{12}ClN$	[660-68-4]	Diethylamine hydrochloride				
	V	(513–558)	177.6	528	A, I	[1987STE/MAL, 1967KIS]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_4H_{12}ClNO_4$	[18720-49-5]	*tert*-butylammonium perchlorate				
	TRS		2.3	327		
	TRS		4.73	394		
	FUS		7.04	414	DSC	[1996DOM/HEA, 1991ISH/IWA]
$C_4H_{12}N_2O_3$	[1941-24-8]	Tetramethylammonium nitrate				
	TRS		17.2	299.6	DSC	[2012VER/EME2]
	TRS		1.7	292		
	TRS		17.2	300		[1988MYL/SRI]
$C_5H_{14}ClN$	[142-65-4]	Pentylammonium chloride				
	TRS	(20–280)	1.18	221.5		
	TRS	(20–280)	0.13	246.5	AC	[1996DOM/HEA, 1933SOU/MIL]
$C_6H_4F_9N_3O_3S$	[1851329-64-0]	1,2,4-triazolium pefuorobutanesulfonate				
	TRS		9.10	350.0		
	TRS		1.93	360.4		
	TRS		20.9	454.1	DSC	[2015LUO/JEN]
$C_6H_9BrN_2O_2$	[671793-14-9]	1-carboxyl-3-methylimidazolium bromide				
	FUS		23.0	450	DSC	[2014ZHA/SAL]
$C_6H_9ClN_2O_2$	[700370-07-6]	1-methyl-3-carboxymethylimidazolium chloride				
	SUB	(403–463)	55.1 ± 1.7	433	TG-GS	[2011LIA/YAN]
$C_6H_{10}N_2O_2$	[205490-65-9]	1-methylimidazolium acetate				
	V		117.3 ± 0.5	298	C	[2012VIT/BER]
$C_6H_{11}BF_4N_2$	[143314-16-3]	1-ethyl-3-methylimidazolium tetrafluoroborate				
	V		128	515	MS	[2009DEY/LOV]
	V		149	298	MS	[2009DEY/LOV]
$C_6H_{11}BrN_2$	[65039-08-9]	1-ethyl-3-methylimidazolium bromide				
	FUS		19.3	340.2	DSC	[2015EFI/PFU]
	FUS	(5–370)	18.26	349.9	AC	[2007PAU/KAB]
$C_6H_{11}BrN_2O$	[97513-90-1]	1-hydroxy-3-methylimidazolium bromide				
	FUS		16.2	345	DSC	[2014ZHA/SAL]
$C_6H_{11}ClN_2$	[65039-09-0]	1-ethyl-3-methylimidazolium chloride				
	FUS		14.2	359.2	DSC	[2015EFI/PFU]
	FUS		15.35	360.7	DSC	[2013KIC/KEI]
	FUS		15.1	360.1		[2011KEI/KON]
	FUS		15.2	360.8		[2010SOL/KEI]
$C_6H_{11}F_6N_2P$	[155371-19-0]	1-ethyl-3-methylimidazolium hexafluorophosphate				
	FUS		17.86	332.8	DSC	[2003DOM/MAR]
$C_6H_{11}IN_2$	[35935-34-3]	1-ethyl-3-methylimidazoliumiodide				
	FUS		16.9	347.2	DSC	[2015EFI/PFU]
$C_6H_{16}BrN$	[7334-96-5]	Dipropylammonium bromide				
	TRS		5.9	293		
	FUS		11.4	538	DSC	[1997SHI/TAN]
$C_6H_{16}N_2O_2$	[3129-93-9]	Diisopropyl ammonium nitrite				
	SUB	(288–299)	39.0	293.5	A	[1987STE/MAL, 1965MAR]
$C_7H_9F_6N_3O_4S_2$	[174899-81-1]	1,3-dimethylimidazolium bis(trifluoromethylsulfonyl)imide				
	FUS		24.8	299.2	DSC	[2005TOK/HAY]
	V	(345–400)	119.9 ± 1.0	381	QCM	[2013VER/ZAI]
	V	(345–400)	128.2 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(543–623)	104.3 ± 1.6	590	TGA	[2013VER/ZAI]
	V	(543–623)	133.5 ± 1.6	298	TGA	[2013VER/ZAI]
$C_7H_{10}BrN$	[1906-79-2]	1-ethylpyridinium bromide				
	FUS	(78–410)	12.77	391.3	AC	[2010TON/LIU2]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_7H_{10}ClN$	[3287-99-8]	Phenylmethylammonium chloride				
	TRS		4.24	416	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_7H_{10}F_6NP$	[103173-73-5]	*N*-ethylpyridinium hexafluorophosphate				
	FUS		22.44	374.28	AC	[2014LIU/TAN]
$C_7H_{10}N_2O_3$	[49580-44-1]	Phenylmethylammonium nitrate				
	TRS		0.9	227	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_7H_{11}BrN_2O_2$	[637743-77-2]	1,2-dimethyl-3-carboyxlimidazolium bromide				
	FUS		13.6	421	DSC	[2014ZHA/SAL]
$C_7H_{11}C1N_2$	[65039-10-3]	1-allyl-3-methylimidazolium chloride				
	TRS		11.25	292.7		
	FUS		0.52	307.5	DSC	[2012MEL/ROD]
$C_7H_{11}N_3S$	[331717-63-6]	1-ethyl-3-methylimidazolium thiocyanate				
	V		133	490	MS	[2009DEY/LOV]
	V		151	298	MS	[2009DEY/LOV]
$C_7H_{13}BrN_2$	[85100-76-1]	1-propyl-3-methylimidazolium bromide				
	FUS	(5–370)	19.11	309.5	AC	[2014PAU/BLO]
	FUS (I)		13.5	314.7		
	FUS (II)		21.4	310.4	AC	[2007PAU/KAB]
$C_7H_{14}F_6N_2O_4S_2$	[173274-74-3]	trimethyl(ethyl)ammonium bis(trifluoromethylsulfonyl)imide				
	FUS		11.3	383	DSC	[2016FAG/DES]
$C_8H_{13}F_6N_2P$	[216300-12-8]	1-propyl-3-methylimidazolium hexafluorophosphate				
	FUS		14.26	311.8	DSC	[2014MAX/SAN]
$C_8H_{11}F_6N_3O_4S_2$	[174899-82-2]	1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	FUS	(50–300)	21.3	271.4	AC	[2009SHI/OHT]
	FUS		24.8	255.2	DSC	[2005TOK/HAY]
	V		117 ± 2	458	ME-MS	[2016DUN/MOT]
	V	(423–498)	121.7 ± 0.7	459	ME-MS	[2015CHI/MED]
	V	(423–498)	130 ± 3	298	ME-MS	[2015CHI/MED]
	V	(500–750)	108.2 ± 1.9	625	DFSC	[2014AHR/BRI]
	V	(500–750)	126	298	DFSC	[2014AHR/BRI]
	V	(500–750)	110.0 ± 1.2	625	DFSC	[2014AHR/BRI]
	V	(500–750)	128.3	298	DFSC	[2014AHR/BRI]
	V	(362–395)	118.6 ± 1 .0	378	QCM	[2013VER/ZAI]
	V	(362–395)	129.6 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(480–570)	110.5 ± 1.5	520	TGA	[2012VER/RAL]
	V	(480–570)	119.4 ± 1.5	298	TGA	[2012VER/RAL]
	V	(445–483)	114.6 ± 0.4	464	QCM-ME	[2011ROC/LIM, 2012VER/RAL]
	V	(445–483)	121.2 ± 0.4	298	QCM-ME	[2011ROC/LIM, 2012VER/RAL]
	V	(362–395)	118.6 ± 1.0	378	QCM-LE	[2011VER/ZAI2, 2012VER/RAL]
	V	(362–395)	126.6 ± 1.0	298	QCM-LE	[2011VER/ZAI2, 2012VER/RAL]
	V	(359–436)	122.0 ± 3.0	398	TPD-MS	[2010LOV/DEY, 2011VER/ZAI2, 2012VER/RAL]
	V	(359–436)	123.8 ± 3.0	298	TPD-MS	[2010LOV/DEY, 2011VER/ZAI2, 2012VER/RAL]
	V	(545–600)	109.3 ± 1.7	573	TPD-UV	[2010WAN/LUO, 2011VER/ZAI2, 2012VER/RAL]
	V	(545–600)	122.7 ± 1.7	298	TPD-UV	[2010WAN/LUO, 2011VER/ZAI2, 2012VER/RAL]
	V	(473–523)	120.6 ± 2.1	496	TGA	[2008LUO/BAK, 2011VER/ZAI2, 2012VER/RAL]
	V	(473–523)	128.5 ± 2.1	298	TGA	[2008LUO/BAK, 2011VER/ZAI2, 2012VER/RAL]
	V	(499–538)	114.7 ± 6.8	517	GS	[2007EME/VER2, 2011VER/ZAI2, 2012VER/RAL]
	V	(499–538)	123.4 ± 6.8	298	GS	[2007EME/VER2, 2011VER/ZAI2, 2012VER/RAL]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(300–550)	119.0 ± 2.0	430	TPD-MS	[2007ARM/HUR, 2011VER/ZAI2, 2012VER/RAL]
	V	(300–550)	125.1 ± 2.0	298	TPD-MS	[2007ARM/HUR, 2011VER/ZAI2, 2012VER/RAL]
	V		110.4 ± 2.4	578	C	[2007SAN/CAN, 2011VER/ZAI2, 2012VER/RAL]
	V		121.6 ± 2.4	298	C	[2007SAN/CAN, 2011VER/ZAI2, 2012VER/RAL]
	V	(442–484)	118.8 ± 2.7	463	ME	[2006ZAI/KAB, 2011VER/ZAI2, 2012VER/RAL]
	V	(442–484)	125.4 ± 2.7	298	ME	[2006ZAI/KAB, 2011VER/ZAI2, 2012VER/RAL]
$C_8H_{11}F_6N_3O_4S_2$	[1025765-95-0]	1,2,3-trimethylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(380–409)	128.0 ± 1.0	298	QCM	[2013ZAI/YER]
$C_8H_{11}N_5$	[370865-89-7]	1-ethyl-3-methylimidazolium dicyanimide				
	V	(453–472)	156.4 ± 3.3	298	GS	[2010VER/EME]
$C_8H_{12}BrN$	[873-71-2]	1-propylpyridinium bromide				
	FUS	(78–410)	10.97	342.8	AC	[2010TON/LIU2]
$C_8H_{12}BrN$	[53916-94-2]	2-phenylethylammonium bromide				
	TRS		6.68	341	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_8H_{12}C1N$	[156-28-5]	2-phenylethylammonium chloride				
	TRS		7.59	389		
	TRS		3.23	432	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_8H_{12}C1N_2O_3$	[120375-47-5]	2-phenylethylammonium nitrate				
	TRS		7.28	320		
	TRS		1.05	370	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_8H_{12}F_6NP$	[1242154-97-7]	*N*-propylpyridiniumhexafluorophosphate				
	FUS		6.83	370.65	AC	[2014LIU/TAN]
$C_8H_{13}F_6N_2O_5S$	[854102-71-9]	Ethyl(2-hydroxyethyl)dimethylammonium bis(trifluoromethylsulfonyl)imide				
	TRS		0.82	262.48		
	TRS		9.98	233.02		
	FUS		2.79	279.16	DSC	[2013MEL/BOG]
	TRS		0.84	262.5		
	TRS		10.02	232.8		
	FUS		2.83	279.16	DSC	[2008DOM/MAR]
$C_8H_{14}N_4$	[370865-77-3]	*N*-methyl-*N*-methylprrolidinium dicyanamide				
	TRS		8.86	270.5		
	TRS		0.70	364.2		
	FUS		4.34	390.2	DSC	[2015CHI/GUN]
$C_8H_{15}BF_4N_2$	[174501-65-6]	1-methyl-3-butylimidazolium tetrafluoroborate				
	V		133 ± 2	500	Mass Spec	[2012DEY/HES]
	V		152 ± 2	298	Mass Spec	[2012DEY/HES]
$C_8H_{15}BrN_2$	[85100-77-2]	1-butyl-3-methylimidazolium bromide				
	FUS	(5–370)	22.88	351.4	AC	[2007PAU/KAB]
	FUS		23.7	350.8	DSC	[2007NIS/WAN]
$C_8H_{15}C1N_2$	[79917-90-1]	1-butyl-3-methylimidazolium chloride				
	FUS		25.4	341.9	DSC	[2015NEM/KOF]
	FUS		25.5	342.6	DSC	[2013KIC/KEI]
	FUS		22.9	344.6	DSC	[2013DIO/PIN]
	FUS		21.5	339	DSC	[2007NIS/WAN]
	FUS		14.06	341.9	DSC	[2004DOM/BOG]
$C_8H_{15}F_6NO_4S_3$	[321746-49-0]	Triethylsulfonium bis(trifluoromethylsulfonyl)imide				
	TRS		9.41	241.1		
	FUS		6.98	262.8	DSC	[2009DOM/KRO]
$C_8H_{15}F_6N_2P$	[174501-64-5]	1-methyl-3-butylimidazolium hexafluorophosphate				

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		20.9	282.3	DSC	[2015NEM/KOF]
	FUS (I)		13.1	285.8		
	FUS (II)		22.6	285.3	DSC	[2013END/NIS]
	FUS	(80–390)	20.67	281.8	AC	[2010ZHA/CUI]
	FUS		13.3	284.3	C	[2010END/KAT]
	FUS		12	282	DSC	[2008JIN/OHA]
	FUS		19.9	280.0	DSC	[2006TRO/CER]
	FUS	(5–310)	19.6	283.5	AC	[2004KAB/BLO]
	TRS		10.67	258.0		
	FUS		9.21	276.4	DSC	[2003DOM/MAR]
	FUS		13.2	281	DSC	[2003FOX/AWA]
$C_8H_{15}IN_2$	[65039-05-6]	l-butyl-3-methylimidazolium iodide				
	FUS	(5–370)	18.99	291.9	AC	[2014PAU/BLO]
	FUS		19.0	291.9	AC	[2010KAB/PAU]
$C_8H_{15}N_3O_3$	[179075-88-8]	l-butyl-3-methylimidazolium nitrate				
	TRS	(5–370)	2.08	278.8		
	TRS	(5–370)	0.36	288.1		
	TRS	(5–370)	0.15	292.2		
	FUS	(5–370)	17.99	309.2	AC	[2008STR/KAB]
$C_8H_{17}BrN_2$	[202256-55-1]	l-ethyl-4-aza-l-azoniabicyclo[2.2.2]octane bromide				
	TRS		1.1	348.6		
	FUS		13.4	467.3	DSC	[2012LAU/RUT]
$C_8H_{17}F_3N_2O_4S$	[805247-89-6]	*O*-ethyl-*N*,*N*,*N*′,*N*′-tetramethylisouronium trifluoromethanesulfonate				
	V		110 ± 1	425	Mass Spec	[2012DEY/HES]
	V		122 ± 1	298	Mass Spec	[2012DEY/HES]
$C_8H_{18}BrN$	[608140-09-6]	l-propyl-1-methylpyrrolidinium bromide				
	TRS		2.92	465.1		
	FUS		10.85	476.7	DSC	[2014ZAW/KRO]
$C_8H_{18}F_6NP$	[327022-58-2]	l-propyl-1-methylpyrrolidinium hexafluorophosphate				
	TRS		2.81	346.6		
	TRS		2.31	359.5		
	FUS		3.41	382.5	DSC	[2014MAX/SAN]
$C_8H_{20}BF_4N$	[429-06-1]	Tetraethylammonium tetrafluoroborate				
	FUS		29.2	364.2	DSC	[2013BHA/GOH]
	TRS		11.7	336	DSC	[1987ZAB/FER]
$C_8H_{20}BrN$	[71-91-0]	Tetraethylammonium bromide				
	TRS		20.0	448.3		
	TRS		1.48	462.6	DSC	[1992XEN/CHE]
[Note: Authors of [1992XEN/CHE] state that the transition at 448.3 K is a transition to a plastic crystal.]						
	FUS		20.3	447	DSC	[1996DOM/HEA, 1974BUR/VER]
$C_8H_{20}BrN$	[10435-44-6]	Dibutylammonium bromide				
	TRS		3.1	228		
	TRS		2.1	254		
	FUS		11.3	563	DSC	[1997SHI/TAN]
$C_8H_{20}BrNO_3$	[82150-35-4]	Tetraethylammonium bromate				
	FUS		30.5	319.2	DSC	[2013BHA/GOH]
$C_8H_{20}ClN$	[6287-40-7]	Dibutylammonium chloride				
	V	(553–563)	116.7	558	A	[1987STE/MAL, 1999DYK/SVO, 1967KIS]
$C_8H_{20}F_6NP$		Tetraethylammonium hexafluorophosphate				
	FUS		36.3	355.2	DSC	[2013BHA/GOH]
$C_8H_{20}IN$	[68-05-3]	Tetraethylammonium iodide				
	TRS		20.87	471.3	DSC	[1992XEN/CHE]
[Note: Authors of [1992XEN/CHE] state that the transition at 471.3 K is a transition to a plastic crystal.]						

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		21.3	465		[1971LEV/KOH]
$C_8H_{20}INO_3$		Tetraethylammonium iodate				
	FUS		44.9	326.2	DSC	[2013BHA/GOH]
$C_8H_{20}N_2O_2$		Tetraethylammonium nitrite				
	FUS		27.7	331.2	DSC	[2013BHA/GOH]
$C_8H_{20}N_2O_3$	[1941-26-0]	Tetraethylammonium nitrate				
	FUS		26.4	388.2	DSC	[2013BHA/GOH]
	TRS		10.8	371.5	DSC	[2012VER/EME2]
$C_9H_{10}F_6N_2O_4S_2$	[712354-97-7]	1-ethylpyridinium bis(trifluoromethylsulfonyl)imide				
	V	(493–504)	120.1 ± 0.6	498	QCM, ME	[2013ROC/SAN]
	V		125.3 ± 1.0	400	QCM	[2012ZAI/YER]
	V		131.4	298	QCM	[2012ZAI/YER]
$C_9H_{13}F_6N_3O_4S_2$	[216299-72-8]	1-methyl-3-propylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(362–395)	121.4 ± 1.0	380	QCM	[2013VER/ZAI]
	V	(362–395)	129.6 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(480–570)	108.8 ± 2.6	546	TGA	[2013VER/ZAI]
	V	(480–570)	133.6 ± 2.6	298	TGA	[2013VER/ZAI]
$C_9H_{13}F_6N_3O_4S_2$		1-methyl-3-isopropylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(343–390)	123.3 ± 1.0	363	QCM	[2016ZAI/VAR]
	V	(343–390)	128.0 ± 1.4	298	QCM	[2016ZAI/VAR]
$C_9H_{13}F_6N_3O_4S_2$	[174899-88-8]	1,3-diethylimidazolium bis(trifluoromethylsulfonyl)imide				
	FUS		20.4	262.6	DSC	[2008DOM/REK]
	V	(455–480)	109.2 ± 0.5	468	ME	[2012ROC/COU]
	V	(455–480)	110.1 ± 0.5	460	ME	[2012ROC/COU]
	V	(455–480)	129.0 ± 1.0	298	ME	[2012ROC/COU]
$C_9H_{13}F_6N_3O_5S_2$	[178631-01-1]	3-(2-methoxyethyl)-1-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(331–392)	118.4 ± 1.0	365	QCM	[2013ZAI/YER2]
	V	(510–575)	109.9 ± 1.4	542	TGA	[2013ZAI/YER2]
	V		121.6 ± 1.0	298		[2013ZAI/YER2]
$C_9H_{14}BF_4N$	[203389-28-0]	*N*-butylpyridinium tetrafluoroborate				
		V	146	510	MS	[2009DEY/LOV]
		V	167	298	MS	[2009DEY/LOV]
$C_9H_{14}BrN$	[120375-53-3]	3-phenylpropylammonium bromide				
	TRS		10.8	357		
	TRS		0.11	402	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_9H_{14}ClN$	[30684-05-0]	3-phenylpropylammonium chloride				
	TRS		6.22	343		
	TRS		4.24	368	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_9H_{14}ClN$	[1124-64-7]	1-butylpyridinium chloride				
	FUS		20.7	393.3	DSC	[2012VER/ZAI]
$C_9H_{15}BrN_2O_2$	[1456904-69-0]	1,2-dimethyl-3-ethylacetateimidazolium bromide				
	FUS		24.5	423	DSC	[2014ZHA/SAL]
$C_9H_{15}BrN_2O_2$	[1309877-52-8]	1-carboxyl-3-butylimidazolium bromide				
	FUS		12.2	430	DSC	[2014ZHA/SAL]
$C_9H_{15}ClN_2O_2$	[1584745-11-8]	1,2-dimethyl-3-ethylacetateimidazolium chloride				
	FUS		23.0	434	DSC	[2014ZHA/SAL]
$C_9H_{15}F_3N_2O_3S$	[174899-66-2]	3-butyl-1-methylimidazolium,1,1,1-trifluoromethanesulfonate				
	TRS	(5–370)	0.02	120		
	FUS	(5–370)	19.43	291.0	AC	[2010PAU/KOH]
$C_9H_{16}N_2O_2$	[865627-64-1]	1-methyl-3-ethylimidazolium propanoate				
	V		111.1	438	TGA	[2014HON/LIU]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_9H_{16}N_2O_2$	[1005328-08-4]	1-propyl-3-methylimidazolium acetate				
	V	(418–438)	104.4	438	ITGA	[2014ZHA/WEI2]
	V	(418–438)	106.1	418	ITGA	[2014ZHA/WEI2]
	V	(418–438)	116.8	298	ITGA	[2014ZHA/WEI2]
$C_9H_{20}F_6NP$	[327022-58-2]	1-propyl-1-methylpiperidinium hexafluorophosphate				
	TRS		8.08	311.7		
	TRS		2.74	352.4		
	FUS		5.11	368.5	DSC	[2014MAX/SAN]
$C_9H_{20}BrN$	[93457-69-3]	1-butyl-1-methylpyrrolidinium bromide				
	FUS		13.12	487.7	DSC	[2014ZAW/KRO]
$C_9H_{20}N_2S$	[4587-19-3]	Tetraethylammonium thiocyanate				
	FUS		24.0	335.2	DSC	[2013BHA/GOH]
$C_9H_{21}NO_3$	[17351-61-0]	Tetraethylammonium carbonate				
	FUS		27.2	347.2	DSC	[2013BHA/GOH]
$C_{10}H_{11}N_5$	[666823-18-3]	1-ethyl-3-methylimidazolium tricyanomethanide				
	TRS		1.62	237		
	FUS		6.48	257.2	DSC	[2013DOM/KRO]
	V	(440–448)	123.0 ± 1.0	423	QCM-LE	[2011EME/ZAI]
	V	(440–448)	138.8 ± 5.0	298	QCM-LE	[2011EME/ZAI]
$C_{10}H_{11}F_{10}N_2O_2P$	[852616-00-3]	1-ethyl-3-methylimidazolium bis(pentafluoroethyl)phosphate				
	V		120 ± 2	400	Mass Spec	[2012DEY/HES]
	V		130 ± 2	298	Mass Spec	[2012DEY/HES]
$C_{10}H_{12}F_6N_2O_4S_2$	[1104525-90-7]	1-propylpyridinium bis(trifluoromethylsulfonyl)imide				
	V	(498–511)	124.1 ± 0.5	504	QCM, ME	[2013ROC/SAN]
	V		128.0 ± 1.0	398	QCM	[2012ZAI/YER]
	V		134.5	298	QCM	[2012ZAI/YER]
$C_{10}H_{12}F_6N_2O_4S_2$	[841251-37-4]	*N*-ethyl-3-methylpyridinium bis(trifluoromethylsulfonyl)imide				
	V	(400–430)	162 ± 35	419	UV/Vis	[2013OGU/AKA]
$C_{10}H_{13}F_6N_3O_4S_2$		l-cyclopropylmethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(350–398)	126.5 ± 1.0	374	QCM	[2016ZAI/VAR]
	V	(350–398)	131.9 ± 1.6	298	QCM	[2016ZAI/VAR]
$C_{10}H_{15}F_3N_2O_2$	[174899-94-6]	1-butyl-3-methylimidazolium trifluoroacetate				
	TRS		0.29	274		
	FUS		19.14	296.4	AC	[2008STR/PAU]
$C_{10}H_{15}F_6N_3O_4S_2$	[174899-83-3]	1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	FUS		25.0	269.6	DSC	[2016XUE/GUR]
	FUS	(15–300)	23.8	270.4	AC	[2012SHI/OHT, 2007SHI/OHT]
	FUS	(5–370)	23.8	270.2	AC	[2008BLO/PAU]
	FUS		21.0	271	DSC	[2008JIN/OHA]
	FUS		22.43	367.7	DSC	[2006TRO/CER]
	FUS		20.9	270	DSC	[2005TOK/HAY]
	V	(502–567)	111.3 ± 1 .6	534	ME,MS	[2014BRU/CIC]
	V	(453–507)	114.9 ± 1.2	489	ME,MS	[2014BRU/CIC]
	V	(398–458)	118.4 ± 1.5	427	ME,MS	[2014BRU/CIC]
	V	(400–430)	137 ± 11	418	UV/Vis	[2013OGU/AKA]
	V	(362–395)	124.4 ± 1.0	378	QCM	[2013VER/ZAI]
	V	(362–395)	132.4 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(513–572)	113.5 ± 1.5	542	TGA	[2013VER/ZAI]
	V	(513–572)	137.8 ± 1.5	298	TGA	[2013VER/ZAI]
	V	(362–395)	124.4 ± 2.5	378	QCM	[2011ZAI/VER]
	V	(262–395)	132.4	298	QCM	[2011ZAI/VER]
	V	(458–517)	120 ± 5	487	ME	[2005PAU/ZAI]
$C_{10}H_{15}F_6N_3O_4S_2$		1-isobutyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(345–393)	126.0 ± 1.0	369	QCM	[2016ZAI/VAR]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(345–393)	131.4 ± 1.6	298	QCM	[2016ZAI/VAR]
$C_1H_{15}F_6N_3O_4S_2$		1-*sec*-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(346–393)	123.0 ± 1.0	369	QCM	[2016ZAI/VAR]
	V	(346–393)	128.4 ± 1.6	298	QCM	[2016ZAI/VAR]
$C_{10}H_{15}F_6N_3O_4S_2$	[169051-76-7]	1-propyl-2,3-dimethylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(423–513)	123.6 ± 1.8	468	ME-MS	[2015CHI/MED]
	V	(423–513)	135 ± 4	298	ME-MS	[2015CHI/MED]
$C_{10}H_{15}F_6N_3O_5S_2$	[1103335-97-2]	3-(2-methoxyethyl)-1,2-dimethylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(358–406)	122.5 ± 1.0	381	QCM	[2013ZAI/YER2]
	V	(512–575)	102.5 ± 1.2	543	TGA	[2013ZAI/YER2]
	V		132.4 ± 1.0	298		[2013ZAI/YER2]
$C_{10}H_{15}N_5$	[448245-52-1]	1-butyl-3-methylimidazolium dicyanimide				
	V		157.2 ± 1.1	298	GS	[2007EME/VER2]
$C_{10}H_{16}F_6NP$	[955127-11-4]	*N*-pentylpyridinium hexafluorophosphate				
	FUS		5.9	328.35	AC	[2014LIU/TAN]
$C_{10}H_{16}BrN$	[120375-52-2]	4-phenylbutylammonium bromide				
	TRS		9.60	353		
	TRS		1.40	393	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{10}H_{16}ClN$	[30684-06-1]	4-phenylbutylammonium chloride				
	TRS		4.03	243		
	TRS		0.65	274		
	TRS		0.27	295	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{10}H_{16}ClN$	[125652-55-3]	1-butyl-3-methylpyridinium chloride				
	FUS		28	384.5	DSC	[2011PER/ROD]
$C_{10}H_{16}N_2O_3$	[120375-45-3]	4-phenylbutylammonium nitrate				
	TRS		l9.1	336	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{10}H_{17}F_6N_3O_4S_2$	[905437-18-5]	1-ethyl-4-aza-1-azoniabicyclo[2.2.2]octane bis(trifluoromethylsulfonyl)imide				
	TRS		16.78	308.7		
	FUS		8.21	349.5	DSC	[2012LAU/RUT]
$C_{10}H_{17}NO_4S$	[885456-20-2]	*N*-butylpyridinium methanesulfate				
	V		144 ± 2	510	Mass Spec	[2012DEY/HES]
	V		l64 ± 2	298	Mass Spec	[2012DEY/HES]
$C_{10}H_{18}N_2O_2$	[1374313-75-3]	1-methyl-3-propylimidazolium propanoate				
	V		115.8	443	TGA	[2014HON/LIU]
$C_{10}H_{18}N_2O_2$	[284049-75-8]	1-butyl-3-methylimidazolium acetate				
	V	(408–448)	l27.8 ± 4.2	428	ITGA	[2015WEI/BU]
	V	(408–448)	134.8	298	ITGA	[2015WEI/BU]
$C_{10}H_{20}N_2S$	[507477-22-7]	1-butyl-1-methylpyrroldinium thiocyanate				
	TRS		8.68	245.3		
	FUS		2.06	295.4	DSC	[2011DOM/KRO]
$C_{10}H_{22}BrN$	[833446-30-3]	1-pentyl-1-methylpyrrolidinium bromide				
	TRS		1.95	326.9		
	FUS		8.97	431.6	DSC	[2014ZAW/KRO]
$C_{10}H_{24}ClN$	[23307-02-0]	Dipentylammonium chloride				
	TRS	(25–350)	13.1	243.8	AC	[1996DOM/HEA, 1988VAN/WHI]
$C_{10}H_{24}ClN$	[143-09-9]	Decylammonium chloride				
	TRS	(80–380)	6.39	307.5		
	TRS	(80–380)	5.85	325.0		
	TRS	(80–380)	2.04	327.3	AC	[2011DAN/DI]
$C_{10}H_{24}F_6NP$	[1020810-59-6]	Dibutyl(dimethyl)ammonium hexafluorophosphate				
	FUS		12.9	436.7	DSC	[2008BUS/LAH]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{11}H_{13}BF_4N_2$	[500996-04-3]	1-benzyl-3-methylimidazolium tetrafluoroborate				
	FUS		19.1	346.2	DSC	[2016SER/RIB]
$C_{11}H_{13}F_6N_2P$	[433337-11-2]	1-benzyl-3-methylimidazolium hexafluorophosphate				
	FUS		24.9	399.7	DSC	[2016SER/RIB]
$C_{11}H_{14}F_6NPS$	[1391349-92-0]	*N*-butylbenzothiazolium hexafluorophosphate				
	FUS		18.6	394.9	DSC	2015JIA/CAO
$C_{11}H_{14}F_6N_2O_4S_2$	[187863-42-9]	1-butylpyridinium bis(trifluoromethylsulfonyl)imide				
	V		121.9 ± 0.8	507	QCM, ME	[2013ROC/SAN]
	V		131.1 ± 1.0	400	QCM	[2012ZAI/YER]
	V		138.1	298	QCM	[2012ZAI/YER]
$C_{11}H_{15}F_6N_3O_4S_2$		1-methyl-3-cyclopentylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(351–398)	127.4 ± 1.0	374	QCM	[2016ZAI/VAR]
	V	(351–398)	133.3 ± 1.8	298	QCM	[2016ZAI/VAR]
$C_{11}H_{17}F_6N_3O_4S_2$	[280779-53-5]	1-methyl-3-pentylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(352–404)	127.8 ± 1.0	382	QCM	[2013VER/ZAI]
	V	(352–404)	136.2 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(523–603)	110.5 ± 1.9	561	TGA	[2013VER/ZAI]
	V	(523–603)	136.8 ± 1.9	298	TGA	[2013VER/ZAI]
$C_{11}H_{17}F_6N_3O_4S_2$	[1138216-84-8]	1,3-dipropylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(453–490)	114.0 ± 0.3	472	ME	[2012ROC/COU]
	V	(453–490)	115.5 ± 0.3	460	ME	[2012ROC/COU]
	V	(453–490)	136.0 ± 0.9	298	ME	[2012ROC/COU]
$C_{11}H_{17}F_6N_3O_6S_2$	[945996-17-8]	3-[2-(2-methoxyethoxy)ethyl]-1-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(353–408)	126.6 ± 1.2	378	QCM	[2013ZAI/YER2]
	V	(512–575)	113.6 ± 1.6	544	TGA	[2013ZAI/YER2]
	V		132.9 ± 1.2	298		[2013ZAI/YER2]
$C_{11}H_{18}BrN$	[120375-51-1]	5-phenylpentylammonium bromide				
	TRS		17.6	345	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{11}H_{18}ClN$	[53429-15-5]	5-phenylpentylammonium chloride				
	TRS		19.5	359	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{11}H_{18}F_{12}N_4P_2$	[320749-62-0]	1,1′-(1,3-propanediyl) bis[3-methylimidazolium bis[hexafluorophosphate]]				
	FUS		38.26	416.8	DSC	[2011YAN/WAN]
$C_{11}H_{19}BrN_2O_2$	[1584745-12-9]	1-ethylacetate-3-butylimidazolium bromide				
	FUS		13.3	366	DSC	[2014ZHA/SAL]
$C_{11}H_{20}F_6N_2O_4S_2$	[223437-11-4]	1-butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide				
	V		136	470	MS	[2009DEY/LOV]
	V		152	298	MS	[2009DEY/LOV]
$C_{11}H_{20}N_2O_2$	[914497-10-2]	1-butyl-3-methylimidazolium propanoate				
	V	(423–463)	118.3 ± 2.5	445	TGA	[2014TON/YAN]
	V	(423–463)	126.8	298	TGA	[2014TON/YAN]
$C_{11}H_{20}N_4$	[370865-80-8]	1-butyl-1-methylpyrrolidinium dicyanamide				
	V		142	500	MS	[2009DEY/LOV]
	V		161	298	MS	[2009DEY/LOV]
$C_{11}H_{22}F_6NOP$		*N*-propyltropine hexafluorophosphate				
	FUS		9.66	425.3	DSC	[2015LU/SON]
$C_{11}H_{22}N_2S$	[1261240-27-0]	1-butyl-1-methylpiperidinium thiocyanate				
	TRS		15.27	274.2		
	FUS		3.02	304.3	DSC	[2011DOM/KRO3]
$C_{12}H_8F_3N_7$	[1698918-20-5]	1-(cyanomethyl)-3-methylimidazolium 4,5-dicyano-2-(trifluoromethyl)imidazolide				
	FUS		30.1	365.8	DSC	[2014OKU/RAM]
$C_{12}H_{11}N_5$	[878027-73-7]	1-butyl-3-methylimidazolium tricyanomethanide				

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(405–453)	129.8 ± 1.4	428	QCM-LE	[2011EME/ZAI]
	V	(405–453)	143.2 ± 5.0	298	QCM-LE	[2011EME/ZAI]
$C_{12}H_{13}F_6N_3O_4S_2$	[1448165-27-2]	1,2,3-trimethylbenzimimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(373–422)	139.7 ± 1.0	298	QCM	[2013ZAI/YER]
	V	(537–627)	139.7 ± 0.8	298	TGA	[2013ZAI/YER]
$C_{12}H_{16}F_6NPS$	[138824-71-2]	*N*-pentylbenzothiazolium hexafluorophosphate				
	FUS		30.2	412.3	DSC	[2015JIA/CAO]
$C_{12}H_{16}F_6N_2O_4S_2$	[890532-45-3]	1-pentylpyridinium bis(trifluoromethylsulfonyl)imide				
	V		134.2 ± 1.0	401	QCM	[2012ZAI/YER]
	V		141.7	298	QCM	[2012ZAI/YER]
$C_{12}H_{16}F_6N_2O_4S_2$	[475681-62-0]	1-butyl-4-methylpyridinium bis(trifluoromethylsulfonyl)imide				
	FUS		21.94	291.4	DSC	[2010DOM/KRO]
$C_{12}H_{19}F_6N_3O_4S_2$	[382150-50-7]	1-methyl-3-hexylimidazolium bis(trifluoromethylsulfonyl)imide				
	FUS		61.9	271.5	DSC	[2011HUG/SYE]
	FUS		63.34	271.1	AC	[2006SHI/OHT]
	FUS (I)		62.78	272.0		
	FUS (II)		62.95	272.0		
	FUS (III)		63.20	272.0	AC	[2006BLO/PAU, 2006ARC, 2011HUG/SYE]
	FUS		62.20	272.1	DSC	
	V	(362–405)	131.6 ± 1.0	383	QCM	[2013VER/ZAI]
	V	(362–405)	140.1 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(513–571)	118.0 ± 1.8	542	TGA	[2013VER/ZAI]
	V	(513–571)	142.3 ± 1.8	298	TGA	[2013VER/ZAI]
	V	(362–405)	131.6 ± 2.5	383	QCM	[2011ZAI/VER]
	V	(362–405)	140.1	298	QCM	[2011ZAI/VER]
$C_{12}H_{19}F_6N_3O_6S_2$	[1485443-96-6]	3-[2-(2-methoxyethoxy)ethyl]-1,2-dimethylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(368–418)	128.7 ± 1.0	391	QCM	[2013ZAI/YER2]
	V	(513–575)	109.5 ± 2.0	544	TGA	[2013ZAI/YER2]
	V		140.4 ± 1.0	298		[2013ZAI/YER2]
$C_{12}H_{20}BrN$	[120375-49-7]	6-phenylhexylammonium bromide				
	TRS		14.4	334	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{12}H_{20}C1N$	[120375-57-7]	6-phenylhexylammonium chloride				
	TRS		0.04	319		
	TRS		1.17	338		
	TRS		0.55	345	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{12}H_{20}ClN$	[916730-40-0]	1-hexyl-3-methylpyridinium chloride				
	FUS		20	355.1	DSC	[2011PER/ROD]
$C_{12}H_{20}F_6N2O_4S_2$	[223437-11-4]	1-butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide				
	TRS	(15–300)	0.20	140		
	FUS	(15–300)	21.9	265.7	AC	[2012SHI/OHT]
	FUS		11	255	DSC	[2008JIN/OHA]
$C_{12}H_{20}F_{12}N_4P_2$	[881682-25-3]	1,1′-(1,4-butanediyl) bis[3-methylimidazolium bis[hexafluorophosphate]]				
	FUS		28.24	384.7	DSC	[2011YAN/WAN2]
$C_{12}H_{20}N_2O_3$	[120375-43-1]	6-phenylhexylammonium nitrate				
	TRS		21.7	325	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{12}H_{22}F_6NOP$		*N*-butyltropine hexafluorophosphate				
	FUS		19.8	400.5	DSC	[2015LU/SON]
$C_{12}H_{22}N_2O_2$	[1374313-76-4]	1-pentyl-3-methylimidazolium propanoate				
	V	(423–463)	121.5 ± 3.7	445	TGA	[2014TON/YAN]
	V	(423–463)	130.3	298	TGA	[2014TON/YAN]
$C_{12}H_{22}N_2O_2$	[888320-05-6]	1-hexyl-3-methylimidazolium acetate				
	V	(408–448)	133.1 ± 4.2	428	ITGA	[2015WEI/BU]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(408–448)	140.7	298	ITGA	[2015WEI/BU]
$C_{12}H_{23}ClN$	[64697-40-1]	1-octyl-3-methylimidazolium chloride				
	V		151 ± 10	455	TPD,MS	[2014LOV/ARM]
	V		166 ± 10	298	TPD,MS	[2014LOV/ARM]
$C_{12}H_{23}F_6N_2P$	[304680-36-2]	1-octyl-3-methylimidazolium hexafluorophosphate				
	FUS		12.9	272.3	DSC	[2015NEM/KOF]
$C_{12}H_{23}IN$	[188589-28-8]	1-octyl-3-methylimidazolium iodide				
	V		149 ± 8	480	TPD,MS	[2014LOV/ARM]
	V		167 ± 8	298	TPD,MS	[2014LOV/ARM]
$C_{12}H_{28}BF4N$	[338-38-5]	Tetrapropylammonium tetrafluoroborate				
	TRS		1.5	289		
	TRS		16.3	392		
	FUS		19.2	511	DSC	[1987ZAB/FER]
	TRS		14.6	397		
	FUS		14.2	512	DSC	[1970COK/AMB]
$C_{12}H_{28}BrN$	[1941-30-6]	Tetrapropylammonium bromide				
	TRS		17.0	382.2		
	TRS		0.35	395.8	DSC	[1992XEN/CHE]
$C_{12}H_{28}BrN$	[26204-55-7]	Dodecylammonium bromide				
	TRS	(78–400)	8.58	329.3		
	TRS	(78–400)	7.60	337.8		
	TRS	(78–400)	9.65	347.4	AC	[2010LIU/DI]
$C_{12}H_{28}ClN$	[929-73-7]	Dodecylammonium chloride				
	TRS	(79–396)	25.72	330.8		
	TRS	(79–396)	5.05	345.1	AC	
	FUS		7.83	456.7	DSC	[2009KON/DI]
$C_{12}H_{28}ClN$	[2296-13-1]	Dihexylammonium chloride				
	TRS	(25–350)	0.91	115.3		
	TRS	(25–350)	15.95	279.4	AC	[1996DOM/HEA, 1988VAN/WHI]
$C_{12}H_{28}ClNO4$	[15780-02-6]	Tetrapropylammonium perchlorate				
	TRS		11.2	444.2		
	TRS		4.47	446.7		
	FUS		14.2	514.2	DSC	[1989NAK/KUW]
$C_{12}H_{28}IN$	[631-40-3]	Tetrapropylammonium iodide				
	TRS		1.44	225.4		
	TRS		15.0	418.9	DSC	[1992XEN/CHE]
[Note: The authors of Ref. [1992XEN/CHE] state that the transition at 418.9 K is a transition to a plastic crystal.]						
	TRS		1.35	218		[1996DOM/HEA, 1973JOH/MAR]
	TRS		2.93	225		
	FUS		13.81	418		[1971LEV/KOH]
	TRS		32.6	419	DSC	[1970COK/AMB]
$C_{12}H_{28}N_2O_3$	[1941-28-2]	Tetrapropylammonium nitrate				
	TRS		8.97	330.8		
	FUS		Not given		DSC	[1989NAK/KUW]
$C_{13}H_{14}F_4N_2O_3S$		1-benzyl-3-methylimidazoium 1,1,2,2-tetrafluoroethanesulfonate				
	FUS		23.6	315.4	DSC	[2016SER/RIB]
$C_{13}H_{18}N_2O_3S$	[328090-25-1]	3-ethyl-1-methylimidazolium tosylate				
	FUS		20.49	322.3	DSC	[2010DOM/KRO2]
$C_{13}H_{18}F_6NPS$	[1330158-81-0]	*N*-hexylbenzothiazolium hexafluorophosphate				
	FUS		23.5	358.8	DSC	[2015JIA/CAO]
$C_{13}H_{18}F_6N_2O_4S_2$	[460983-97-5]	1-hexylpyridinium bis(trifluoromethylsulfonyl)imide				
	V		137.3 ± 1.0	406	QCM	[2012ZAI/YER]
	V		145.9	298	QCM	[2012ZAI/YER]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V		139	440	MS	[2009DEY/LOV]
	V		152	298	MS	[2009DEY/LOV]
$C_{13}H_{19}F_6N_3O_4S_2$		1-methyl-3-cyclohexylmethylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(360–408)	134.1 ± 1.0	384	QCM	[2016ZAI/VAR]
	V	(360–408)	142.0 ± 2.4	298	QCM	[2016ZAI/VAR]
$C_{13}H_{21}F_6N_3O_4S_2$	[749921-07-1]	1,3-dibutylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(455–488)	116.8 ± 0.4	472	ME	[2012ROC/COU]
	V	(455–488)	118.4 ± 0.4	460	ME	[2012ROC/COU]
	V	(455–488)	140.8 ± 0.9	298	ME	[2012ROC/COU]
$C_{13}H_{21}F_6N_3O_4S_2$	[425382-14-5]	1-methyl-3-heptylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(364–406)	133.5 ± 1.0	385	QCM	[2013VER/ZAI]
	V	(364–406)	142.2 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(503–603)	114.3 ± 1.9	553	TGA	[2013VER/ZAI]
	V	(503–603)	139.9 ± 1.9	298	TGA	[2013VER/ZAI]
$C_{13}H_{21}F_6N_3O_7S_2$	[947407-82-1]	3-[2-[2-(2-methoxyethoxy)ethoxy]ethyl]-1-methylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(363–418)	133.6 ± 1.0	388	QCM	[2013ZAI/YER2]
	V	(519–582)	117.8 ± 1.8	551	TGA	[2013ZAI/YER2]
	V		142.4 ± 1.0	298		[2013ZAI/YER2]
$C_{13}H_{22}BrN$	[120375-50-0]	7-phenylheptylammonium bromide				
	TRS		9.3	332	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{13}H_{22}ClN$	[120375-56-6]	7-phenylheptylammonium chloride				
	TRS		10.1	310	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{13}H_{24}F_6N_2O_4S_2$	[380497-19-8]	1-hexyl-1-methylpyrroldinium bis(trifluoromethylsulfonyl)imide				
	V		141	460	MS	[2009DEY/LOV]
	V		156	298	MS	[2009DEY/LOV]
$C_{13}H_{24}N_2O_2$	[914497-11-3]	1-hexyl-3-methylimidazolium propanoate				
	V	(423–463)	127.2 ± 6.8	445	TGA	[2014TON/YAN]
	V	(423–463)	136.5	298	TGA	
$C_{13}H_{26}F_6NOP$		*N*-pentyltropine hexafluorophosphate				
	FUS		11.3	403.0	DSC	[2015LU/SON]
$C_{13}H_{30}BrN$	[2082-84-0]	Decyl(trimethyl)ammonium bromide				
	TRS		32.4	369.5	DSC	[1981IWA/OHN]
$C_{14}H_{17}F_6N_3O_4S_2$	[956592-35-1]	1-hexyl-4-cyanopyridinium bis(trifluoromethylsulfonyl)imide				
	FUS		18.83	280.2	DSC	[2013DOM/SKI]
$C_{14}H_{17}NO_3S$	[78105-28-9]	1,4-dimethylpyridinium tosylate				
	FUS		30.89	424.8	DSC	[2009DOM/KRO]
$C_{14}H_{20}F_6NPS$	[1667725-22-5]	*N*-heptylbenzothiazolium hexafluorophosphate				
	FUS		20.1	359.3	DSC	[2015JIA/CAO]
$C_{14}H_{23}F_6N_3O_4S_2$	[178631-04-4]	1-methyl-3-octylimidazolium bis(trifluoromethylsulfonyl)imide				
	FUS		57.7	249.8	DSC	[2011HUG/SYE]
	FUS		59.9	251.4	AC	[2007PAU/BLO]
	V	(372–402)	136.8 ± 1.0	387	QCM	[2013VER/ZAI]
	V	(372–402)	145.7 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(513–571)	122.6 ± 1.0	542	TGA	[2013VER/ZAI]
	V	(513–571)	147.0 ± 1.0	298	TGA	[2013VER/ZAI]
	V	(372–402)	136.8 ± 2.5	387	QCM	[2011ZAI/VER]
	V	(372–402)	145.7	298	QCM	[2011ZAI/VER]
$C_{14}H_{23}F_6N_3O_7S_2$	[1485443-99-9]	3-[2-[2-(2-methoxyethoxy)ethoxy]ethyl]-1,2-dimethylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(378–428)	134.4 ± 1.0	401	QCM	[2013ZAI/YER2]
	V		147.8 ± 1.0	298		[2013ZAI/YER2]
$C_{14}H_{23}N_5$	[905972-84-1]	1-octyl-3-methylimidazolium dicyanamide				
	V		141	520	MS	[2009DEY/LOV]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V		162	298	MS	[2009DEY/LOV]
$C_{14}H_{24}BrN$	[120396-93-2]	8-phenyloctylammonium bromide				
	TRS		0.69	356		
	TRS		12.1	379	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{14}H_{24}ClN$	[17734-26-8]	8-phenyloctylammonium chloride				
	TRS		7.02	332		
	TRS		2.85	347	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{14}H_{24}ClN$	[864461-36-9]	1-octyl-3-methylpyridinium chloride				
	FUS		15	353.2	DSC	[2011PER/ROD]
$C_{14}H_{24}N_2O_3$	[120375-41-9]	8-phenyloctylammonium nitrate				
	TRS		23.0	334	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{14}H_{26}F_6NOP$		*N*-hexyltropine hexafluorophosphate				
	FUS		15.2	362.3	DSC	[2015LU/SON]
$C_{15}H_{16}F_6N_2O_4S_2$	[1289382-58-6]	1-butylquinolinium bis(trifluoromethylsulfonyl)imide				
	FUS		44.14	329.1	DSC	[2010DOM/ZAW]
$C_{15}H_{16}F_6N_2O_4S_2$	[957763-47-2]	2-butylisoquinolinium bis(trifluoromethylsulfonyl)imide				
	FUS		46.1	321.0	DSC	[2011DOM/ZAW3]
$C_{15}H_{18}F_{12}N_6O_8S_4$	[844468-61-7]	3,3′-(1,3-propanediyl)bis[1-methylimidazolium] bis[(trifluoromethylsulfonyl)imide]				
	V		158	545	MS	[2009DEY/LOV]
	V		190	298	MS	[2009DEY/LOV]
$C_{15}H_{19}NO_3S$	[59229-09-3]	2,4,6-trimethylpyridinium tosylate				
	FUS		22.88	403.7	DSC	[2009DOM/KRO]
$C_{15}H_{20}F_{18}NP$	[851856-47-8]	1-butyl-1-methylpyrrolidinium tris(pentafluoroethyl)trifluorophosphate				
	V		138	450	MS	[2009DEY/LOV]
	V		152	298	MS	[2009DEY/LOV]
$C_{15}H_{21}F_6N_2O_3P$		*N*-(4-nitrobenzyl)tropine hexafluorophosphate				
	FUS		25.8	518.3	DSC	[2015LU/SON]
$C_{15}H_{22}F_6NOP$		*N*-benzyltropine hexafluorophosphate				
	FUS		22.5	427.0	DSC	[2015LU/SON]
$C_{15}H_{22}F_6NPS$	[1667725-23-6]	*N*-octylbenzothiazolium hexafluorophosphate				
	FUS		15.0	334.2	DSC	[2015JIA/CAO]
$C_{15}H_{22}N_2O_3S$	[410522-18-8]	1-butyl-3-methylimidazolium tosylate				
	FUS		16.35	330.2	DSC	[2010DOM/KRO3]
	TRS	(5–370)	0.19	152		
	FUS	(5–370)	19.9	342.5		
	FUS	(5–370)	21.6	343.9	AC	[2007STR/PAU]
	FUS	(315–470)	22.8		DSC	[2007STR/PAU]
$C_{15}H_{25}F_6N_2O_4S_2$	[1138216-85-9]	1,3-dipentylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(463–496)	123.6 ± 0.2	480	ME	[2012ROC/COU]
	V	(463–496)	126.5 ± 0.2	460	ME	[2012ROC/COU]
	V	(463–496)	150.6 ± 0.9	298	ME	[2012ROC/COU]
$C_{15}H_{26}BrN$	[120375-48-6]	9-phenylnonylammonium bromide				
	TRS		8.93	309	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{15}H_{26}ClN$	[120375-55-5]	9-phenylnonylammonium chloride				
	TRS		10.0	320		
	TRS		7.59	331	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{15}H_{28}F_6N_2O_4S_2$	[927021-43-0]	1-octyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide				
	V		145	470	MS	[2009DEY/LOV]
	V		161	298	MS	[2009DEY/LOV]
$C_{15}H_{32}F_{12}N_2P_2$	[1669342-29-3]	1,1′-(1,3-propanediyl)-bis(1-methylpiperdinium)dihexafluorophosphate				
	FUS		8.58	410.2	DSC	[2014HAD/VIL]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{15}H_{34}BrN$	[1119-94-4]	Dodecyl(trimethyl)ammonium bromide				
	TRS		42.3	370.4	DSC	[1981IWA/OHN]
$C_{15}H_{34}C1N$	[112-00-5]	Dodecyl(trimethyl)ammonium chloride				
	TRS		29.6	357.2	DSC	[1981IWA/OHN]
$C_{16}H_{19}F_{18}N_2P$	[713512-19-7]	1-methyl-3-hexylimidazolium tris(pentafluoroethyl)trifluorophospate				
	V		131 ± 2	430	Mass Spec	[2012DEY/HES]
	V		143 ± 2	298	Mass Spec	[2012DEY/HES]
$C_{16}H_{20}F_6NP$	[12260-70-7]	Dibenzyl(dimethyl)ammonium hexafluorophosphate				
	FUS		37.6	491.0	DSC	[2008BUS/LAH]
$C_{16}H_{21}F_6N_3O_4S_2$	[1447958-52-2]	1-octyl-3-cyanopyridinium bis(trifluoromethylsulfonyl)imide				
	FUS		17.71	287.9	DSC	[2013DOM/SKI]
$C_{16}H_{24}F_6NO_2P$		*N*-(3-methoxybenzyl)tropine hexafluorophosphate				
	FUS		29.8	439.3	DSC	[2015LU/SON]
$C_{16}H_{27}F_6N_3O_4S_2$	[433337-23-6]	1-methyl-3-decylimidazolium bis(trifluoromethylsulfonyl)imide				
	TRS	(5–370)	2.51	249		
	FUS	(5–370)	28.67	277.3	AC	[2016PAU/BLO]
	V	(380–410)	142.5 ± 1.0	395	QCM	[2013VER/ZAI]
	V	(380–410)	152.1 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(493–552)	125.2 ± 1.0	522	TGA	[2013VER/ZAI]
	V	(493–552)	147.5 ± 1.0	298	TGA	[2013VER/ZAI]
	V	(380–410)	142.5 ± 2.5	394	QCM	[2011ZAI/VER]
	V	(380–410)	152.1	298	QCM	[2011ZAI/VER]
$C_{16}H_{28}BrN$	[120396-92-1]	10-phenyldecylammonium bromide				
	TRS		14.2	323		
	TRS		16.0	369	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{16}H_{28}ClN$	[120375-54-4]	10-phenyldecylammonium chloride				
	TRS		17.7	357		
	TRS		7.2	368	DSC	[1996DOM/HEA, 1989VAN/WHI]
$C_{16}H_{28}ClN$	[29529-26-8]	1-decyl-3-methylpyridinium chloride				
	FUS		14	352.3	DSC	[2011PER/ROD]
$C_{16}H_{30}Br_2N_2$	[51523-43-4]	1,2-bis(methyldiallylammonium)ethane dibromide				
	TRS		3.01	371	DSC	[1996DOM/HEA, 1974BUR/VER]
$C_{16}H_{31}F_6N_2P$	[219947-93-0]	1-dodecyl-3-methylimidazolium hexafluorophosphate				
	FUS		27.2	326.2	DSC	[2015NEM/KOF]
	FUS		25.88	326.3	DSC	[2014MAX/SAN]
$C_{16}H_{32}N_2O_4S$	[445473-58-5]	1-methyl-3-methylimidazolium octylsulfate				
	V		161 ± 2	510	Mass Spec	[2012DEY/HES]
	V		181 ± 2	298	Mass Spec	[2012DEY/HES]
$C_{16}H_{34}F_{12}N_2P_2$	[741188-72-7]	1,1′-(1,4-butanediyl)-bis(1-methylpiperidinium)dihexafluorophosphate				
	FUS		6.10	376.5	DSC	[2014HAD/VIL]
$C_{16}H_{36}BF_4N$	[429-42-5]	Tetrabutylammonium tetrafluoroborate				
	TRS		7.9	335		
	FUS		12.1	429	DSC	[1987ZAB/FER]
	TRS		6.7	341		
	FUS		10.5	439	DSC	[1970COK/AMB]
$C_{16}H_{36}BrN$	[24447-58-3]	Dioctylammonium bromide				
	TRS		25	303	DSC	[2005STE/VOI]
$C_{16}H_{36}BrN$	[1643-19-2]	Tetrabutylammonium bromide				
	TRS		15.1	367.0		
	TRS		0.38	379.2		
	FUS		14.8	393.9	DSC	[1992XEN/CHE]
	TRS		0.07	293		

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	TRS		1.63	367		
	TRS		0.34	383		[1996DOM/HEA, 1974BUR/VER]
	FUS		16.15	395	DSC	
	TRS		14.2	372		
	FUS		15.5	395	DSC	[1970COK/AMB]
$C_{16}H_{36}C1N$	[1112-67-0]	Tetrabutylammonium chloride				
	FUS		20.5	314	DSC	[1970COK/AMB]
$C_{16}H_{36}C1N$	[2296-14-2]	Dioctylammonium chloride				
	TRS		37	294	DSC	[2005STE/VOI]
	TRS	(25–350)	33.61	297.7	AC	[1996DOM/HEA, 1988VAN/WHI]
$C_{16}H_{36}C1NO_4$	[10081-31-9]	Dioctylammonium perchlorate				
	TRS		37	296	DSC	[2005STE/VOI]
$C_{16}H_{36}C1NO_4$	[1923-70-2]	Tetrabutylammonium perchlorate				
	TRS		3.10	329.2		
	FUS		12.3	487.7	DSC	[1989NAK/KUW]
$C_{16}H_{36}F_6NP$	[3109-63-5]	Tetrabutylammonium hexafluorophosphate				
	TRS		1.78	300.4		
	TRS		5.80	356.1		
	FUS		13.02	520.9	DSC	[2014MAX/SAN]
	TRS		10.5	366		
	FUS		17.2	517	DSC	[1970COK/AMB]
$C_{16}H_{36}F_6P_2$	[111928-21-3]	Tetrabutylphosphonium hexafluorophosphate				
	TRS		1.84	265.0		
	FUS		13.18	497.5	DSC	[2014MAX/SAN]
$C_{16}H_{36}IN$	[24447-59-4]	Dioctylammonium iodide				
	TRS		21	271	DSC	[2005STE/VOI]
$C_{16}H_{36}IN$	[311-28-4]	Tetrabutylammonium iodide				
	TRS		29.4	394.0		
	FUS		8.96	420.6	DSC	[1992XEN/CHE]
	TRS		27.1	300.3		
	FUS		9.18	419.2	DSC	[1989NAK/KUW]
	TRS		28.0	392		
	FUS		9.2	418		[1971LEV/KOH]
	TRS		28.0	392		
	FUS		9.6	419	DSC	[1970COK/AMB]
$C_{16}H_{36}N_2O_3$	[1941-27-1]	Tetrabutylammonium nitrate				
	TRS		0.2	361.4		
	FUS		14.3	391.1	DSC	[2012VER/EME2]
	TRS		0.21	362.3		
	FUS		15.6	389.3	DSC	[1989NAK/KUW]
	TRS		0.2	366		
	FUS		14.6	392	DSC	[1970COK/AMB]
$C_{16}H_{36}N_2O_3$	[10081-30-8]	Dioctylammonium nitrate				
	TRS		53.5	318	DSC	[2005STE/VOI]
$C_{16}H_{38}Br_2N_2$	[1067-62-5]	1,4-bis(triethylammonium)butane dibromide				
	TRS		50.2	518	DSC	[1996DOM/HEA, 1974BUR/VER]
$C_{17}H_{20}F_6N_2O_4S_2$	[1263302-30-2]	1-hexylquinolinium bis(trifluoromethylsulfonyl)imide				
	FUS		63.54	317.2	DSC	[2011DOM/ZAW2]
$C_{17}H_{20}F_6N_2O_4S_2$	[957763-49-4]	2-hexylisoquinolinium bis(trifluoromethylsulfonyl)imide				
	TRS		2.45	193.8		
	FUS		58.64	327.2	DSC	[2011DOM/ZAW]
$C_{17}H_{23}NO_3S$	[1256080-48-4]	1-butyl-3-methylpyridinium tosylate				
	FUS		11.34	315.8	DSC	[2010LET/RAM]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{17}H_{29}F_6N_2O_4S_2$	[1394227-32-7]	1,3-dihexylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(463–496)	138.4 ± 0.3	480	ME	[2012ROC/COU]
	V	(463–496)	131.5 ± 0.3	460	ME	[2012ROC/COU]
	V	(463–496)	157.4 ± 0.9	298	ME	[2012ROC/COU]
$C_{17}H_{30}F_{12}N_2P_2$		1-(1-pyridinium-yl-hexyl)-6-methylpiperidinium dihexafluorophosphate				
	FUS		28.19	386.7	DSC	[2015YAN/WAN]
$C_{17}H_{36}N_2S$	[3674-54-2]	Tetrabutylammonium thiocyanate				
	TRS		10.5	322.4		
	FUS		8.4	398.0	DSC	[2015YER/ZAI]
	V	(417–437)	151.4 ± 0.4	425	QCM	[2015YER/ZAI]
	V	(417–437)	164.1 ± 1.3	298	QCM	[2015YER/ZAI]
$C_{17}H_{38}BrN$	[1119-97-7]	Tetradecyl(trimethyl)ammonium bromide				
	TRS		46.9	372.3	DSC	[1981IWA/OHN]
$C_{17}H_{38}ClN$	[4574-04-3]	Tetradecyl(trimethyl)ammonium chloride				
	TRS		37.4	364.5	DSC	[1981IWA/OHN]
$C_{17}H_{40}Br_2N_2$	[7128-82-7]	1,5-bis(triethylammonium)pentane dibromide				
	TRS		24.48	465	DSC	[1996DOM/HEA, 1974BUR/VER]
$C_{18}H_{24}BF_4N$	[1020810-53-0]	Dimethyldi(3-methylbenzyl)ammonium tetrafluoroborate				
	FUS		26.6	442.2	DSC	[2008BUS/LAH]
$C_{18}H_{24}BF_4N$	[1020810-56-3]	Dimethyldi(4-methylbenzyl)ammonium tetrafluoroborate				
	FUS		32.0	478.7	DSC	[2008BUS/LAH]
$C_{18}H_{24}F_6NP$	[1020810-70-1]	Dimethyldi(4-methylbenzyl)ammonium hexafluorophosphate				
	FUS		42.5	491.0	DSC	[2008BUS/LAH]
$C_{18}H_{31}F_6N_3O_4S_2$	[404001-48-5]	1-methyl-3-dodecylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(392–425)	147.0 ± 1.0	408	QCM	[2013VER/ZAI]
	V	(392–425)	158.0 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(503–562)	126.0 ± 1.1	533	TGA	[2013VER/ZAI]
	V	(503–562)	149.5 ± 1.1	298	TGA	[2013VER/ZAI]
	V	(392–425)	147.0 ± 2.5	408	QCM	[2011ZAI/VER]
	V	(392–425)	158.0	298	QCM	[2011ZAI/VER]
$C_{18}H_{32}ClN$	[33735-41-0]	1-dodecyl-3-methylpyridinium chloride				
	FUS		37	360.8	DSC	[2011PER/ROD]
$C_{18}H_{36}F_6N_2O_4S_2$	[210230-40-3]	Tetrabutylammonium bis(trifluorosulfonyl)imide				
	FUS		22.6	365	DSC	[2016FAG/DES]
$C_{18}H_{38}F_{12}N_2P_2$	[956157-19-0]	1,1′-(1,4-butanediyl)-bis(1-ethylpiperidinium)dihexafluorophosphate				
	FUS		6.10	396.3	DSC	[2014HAD/VIL]
$C_{18}H_{42}Br_2N_2$	[7072-43-7]	1,6-bis(triethylammonium)hexane dibromide				
	TRS		18.83	495	DSC	[1996DOM/HEA, 1974BUR/VER]
$C_{19}H_{24}F_6N_2O_4S_2$	[868671-34-5]	*N*-octylquinolinium bis(trifluoromethylsulfonyl)imide				
	FUS		62.91	321.5	DSC	[2012ZAW/DOM]
$C_{19}H_{27}NO_3S$	[1256080-49-5]	1-hexyl-3-methylpyridinium tosylate				
	FUS		10.09	329.3	DSC	[2011DOM/KRO2, 2009DOM/KRO]
$C_{19}H_{33}F_6N_3O_4S_2$	[1453194-49-4]	1,3-diheptylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(483–503)	130.8 ± 0.5	493	QCM	[2014ROC/COU]
	V	(483–503)	164.2 ± 1.1	298	QCM	[2014ROC/COU]
$C_{19}H_{42}ClN$	[112-02-7]	Hexadecyl(trimethyl)ammonium chloride				
	TRS		41.8	368.4	DSC	[1981IWA/OHN]
$C_{19}H_{42}BrN$	[7322-37-4]	*N*-butyl-*N*,*N*,*N*-isopentylammonium bromide				
	TRS		4.0	342		
	FUS		15.9	395	DSC	[1970COK/AMB]
$C_{19}H_{42}BrN$	[57-09-0]	Hexadecyl(trimethyl)ammonium bromide				

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	TRS		51.5	376.1	DSC	[1981IWA/OHN]
$C_{20}H_{35}F_6N_3O_4S_2$	[404001-49-6]	1-methyl-3-tetradecylimidazolium bis(trifluoromethylsulfonyl)imide				
	TRS	(5–370)	4.25	295.5		
	FUS	(5–370)	45.8	308.8	AC	[2016PAU/BLO]
	V	(498–528)	140.6	513	ME	[2016PAU/BLO]
	V	(400–432)	152.5 ± 1.0	416	QCM	[2013VER/ZAI]
	V	(400–432)	164.3 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(513–571)	132.7 ± 1.0	542	TGA	[2013VER/ZAI]
	V	(513–571)	157.1 ± 1.0	298	TGA	[2013VER/ZAI]
	V	(400–432)	152.5 ± 2.5	416	QCM	[2011ZAI/VER]
	V	(400–432)	164.3	298	QCM	[2011ZAI/VER]
$C_{20}H_{36}ClN$	[102-43-2]	1-tetradecyl-3-methylpyridinium chloride				
	FUS				DSC	[2011PER/ROD]
$C_{20}H_{44}BrN$	[24447-61-8]	Didecylammonium bromide				
	TRS		38	330	DSC	[2005STE/VOI]
$C_{20}H_{44}BrN$	[866-97-7]	Tetrapentylammonium bromide				
	FUS		36.6	374.0	DSC	[1992XEN/CHE]
	FUS		41.4	376	DSC	[1970COK/AMB]
$C_{20}H_{44}ClN$	[4965-17-7]	Tetrapentylammonium chloride				
	TRS		2.8	281		
	FUS		1.3	295	DSC	[1970COK/AMB]
$C_{20}H_{44}ClN$	[2486-84-2]	Didecylammonium chloride				
	TRS		40	321	DSC	[2005STE/VOI]
	TRS	(25–350)	50.59	321.5	AC	[1996DOM/HEA, 1988VAN/WHI]
[Note: Numerical value contains the enthalpy for the transition that occurred at 320 K.]						
$C_{20}H_{44}ClNO_3$	[619671-14-6]	Didecylammonium chlorate				
	TRS		59	328.7	DSC	[2005STE/VOI]
$C_{20}H_{44}ClNO_4$	[4328-09-0]	Tetrapentylammonium perchlorate				
	TRS		16.3	362.1		
	FUS		36.1	389.2	DSC	[1989NAK/KUW]
	TRS		36.8	364.2		
	FUS		18.0	391.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[68963-42-8]	*N*-butyl-*N*,*N*-dipentyl-*N*-hexylammonium perchlorate				
	FUS		26.4	355.7	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[68963-44-0]	*N*,*N*-dibutyl-*N*,*N*-dihexylammonium perchlorate				
	FUS		34.3	355.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[68963-45-1]	*N*,*N*,*N*-trihexyl-*N*-ethylammonium perchlorate				
	FUS		18.8	320.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[68963-47-3]	*N*,*N*,*N*-tripropyl-*N*-undecylammonium perchlorate				
	FUS		25.1	335.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[68963-48-4]	*N*,*N*-diethyl-*N*,*N*-dioctylammonium perchlorate				
	FUS		50.2	333.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[68963-49-5]	*N*,*NN*-triethyl*N*-tetradecylammonium perchlorate				
	TRS		12.6	338		
	FUS		50.2	425.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[68963-50-8]	*N*,*N*-dimethyl-*N*-ethyl-*N*-hexadecylammonium perchlorate				
	TRS		5.4	352.7		
	TRS		18.4	359.2		
	FUS		19.2	429.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}ClNO_4$	[2452-81-5]	Tetraisopentylammonium perchlorate				
	TRS		6.60	371.2		
	FUS		22.4	386.2	DSC	[1989NAK/KUW]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{20}H_{44}ClNO_4$	[59785-31-8]	Tributyloctylammonium perchlorate				
	FUS		28.9	338.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}IN$	[2498-20-6]	Tetrapentylammonium iodide				
	TRS		16.7	404.6		
	FUS		38.7	412.1	DSC	[1992XEN/CHE]
	TRS		15.2	394.2		
	FUS		38.2	407.2	DSC	[1989NAK/KUW]
	TRS		13.8	403		
	FUS		37.7	410		[1971LEV/KOH]
	TRS		17.2	405		
	FUS		39.3	412	DSC	[1970COK/AMB]
$C_{20}H_{44}IN$	[5424-26-0]	Tetraisopentylammonium iodide				
	TRS		23.9	391.2		
	FUS		16.0	420.7	DSC	[1989NAK/KUW]
	TRS		28.9	345		
	TRS		5.9	352		
	FUS		15.9	422	DSC	[1970COK/AMB]
$C_{20}H_{44}IN$	[68963-51-9]	*N*-methyl-*N*,*N*-dipropyl-*N*-tridecylammonium iodide				
	FUS		37.7	345.2	DSC	[1978GOR/RAO]
$C_{20}H_{44}N_2O_3$	[682-02-0]	Tetrapentylammonium nitrate				
	TRS		11.5	355.7		
	FUS		29.4	383.7	DSC	[1989NAK/KUW]
	TRS		12.6	366		
	FUS		26.5	387	DSC	[1970COK/AMB]
$C_{20}H_{44}N_2O_3$	[22377-07-7]	Didecylammonium nitrate				
	TRS		64	333	DSC	[2005STE/VOI]
$C_{20}H_{46}Br_2N_2$	[51523-40-1]	1,8-bis(triethylammonium)octane dibromide				
	TRS		12.13	438	DSC	[1996DOM/HEA, 1974BUR/VER]
$C_{21}H_{37}F_6N_3O_4S_2$	[220749-78-0]	1,3-dioctylimidazolium bis(trifluorosulfonyl)imide				
	V	(483–505)	126.1 ± 0.6	494	QCM	[2014ROC/COU]
	V	(483–505)	161.6 ± 1.2	298	QCM	[2014ROC/COU]
$C_{21}H_{44}N_2S$	[3475-60-3]	Tetrapentylammonium thiocyanate				
	TRS	22.6	315			
	FUS		19.7	322.7	DSC	[1970COK/AMB]
	V	(422–454)	159.0	437	QCM	[2015YER/ZAI]
$C_{21}H_{42}F_6N_3O_4S_2$	[1031250-01-7]	Hexadecyl(trimethyl)ammonium bis(trifluorosulfonyl)imide				
	TRS		29.4	319		
	FUS		25.6	335	DSC	[2016FAG/DES]
$C_{22}H_{46}BrN$	[1120-02-1]	Octadecyl(trimethyl)ammonium bromide				
	TRS		64.9	378.3	DSC	[1981IWA/OHN]
$C_{22}H_{46}ClN$	[112-03-8]	Octadecyl(trimethyl)ammonium chloride				
	TRS		42.7	374.7	DSC	[1981IWA/OHN]
$C_{22}H_{46}IN$	[4292-25-5]	Octadecyl(trimethyl)ammonium iodide				
	TRS		46.9	393.9	DSC	[1981IWA/OHN]
$C_{22}H_{39}F_6N_3O_4S_2$	[404001-50-9]	1-methyl-3-hexadecylimidazolium bis(trifluoromethylsulfonyl)imide				
	TRS	(5–370)	5.34	305.5		
	FUS	(5–370)	51.28	319.25	AC	[2016PAU/BLO]
	V	(508–533)	147.1	520	ME	[2016PAU/BLO]
	V	(405–445)	156.3 ± 1.0	425	QCM	[2013VER/ZAI]
	V	(405–445)	169.0 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(513–571)	136.4 ± 1.4	542	TGA	[2013VER/ZAI]
	V	(513–571)	160.8 ± 1.4	298	TGA	[2013VER/ZAI]
	V	(405–445)	156.3 ± 2.5	425	QCM	[2011ZAI/VER]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	V	(405–445)	169.0	298	QCM	[2011ZAI/VER]
$C_{22}H_{40}C1N$	[14586-40-4]	1-hexadecyl-3-methylpyridinium chloride				
	FUS		40	383.0	DSC	[2011PER/ROD]
$C_{22}H_{48}N_2O_3$	[937368-81-5]	Didecyl(dimethyl)ammonium nitrate				
	FUS		9.76	304.8	DSC	[2013MEL/BOG]
	FUS		9.88	304.8	DSC	[2007DOM/LUG]
$C_{22}H_{50}Br_2N_2$	[51523-41-2]	1,10-bis(triethylammonium)decanedibromide				
	TRS		0.84	444	DSC	[1996DOM/HEA, 1974BUR/VER]
$C_{23}H_{32}F_6FeNO_4S_2$	[1440426-03-8]	1-propyl-2,3,4,5,6,7,8,9-octamethylferrocenium bis(trifluoromethylsulfonyl)imide				
	FUS		36.5	NA		[2015BER/MOC]
$C_{23}H_{41}F_6N_3O_4S_2$	[1453194-50-7]	1,3-dinonylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(493–523)	128.7 ± 1.2	508	QCM	[2014ROC/COU]
	V	(493–523)	169.0 ± 1.6	298	QCM	[2014ROC/COU]
$C_{24}H_{34}F_6FeNO_4S_2$	[1209012-06-5]	1-butyl-2,3,4,5,6,7,8,9-octamethylferrocenium bis(trifluoromethylsulfonyl)imide				
	FUS		26.5	NA		[2015BER/MOC]
$C_{24}H_{43}F_6N_3O_4S_2$	[404001-51-0]	1-methyl-3-octadecylimidazolium bis(trifluoromethylsulfonyl)imide				
	FUS	(14–350)	71.5	327.1	AC	[2009SHI/OHT]
[Note: The authors of [2009SHI/OHT] report that value contains contribution from a solid-to-solid transition.]						
	V	(410–452)	162.4 ± 1.0	430	QCM	[2013VER/ZAI]
	V	(410–452)	175.6 ± 1.0	298	QCM	[2013VER/ZAI]
	V	(546–621)	138.5 ± 1 .4	582	TGA	[2013VER/ZAI]
	V	(546–621)	166.8 ± 1 .4	298	TGA	[2013VER/ZAI]
	V	(410–452)	162.4 ± 2.5	430	QCM	[2011ZAI/VER]
	V	(410–452)	175.6	298	QCM	[2011ZAI/VER]
$C_{24}H_{44}ClN$	[119250-87-2]	1-octadecyl-3-methylpyridinium chloride				
	FUS		28	385.4	DSC	[2011PER/ROD]
$C_{24}H_{52}BF_4N$	[15553-50-1]	Tetrahexylammonium tetrafluoroborate				
	TRS		19.7	334		
	FUS		19.2	367	DSC	[1970COK/AMB]
$C_{24}H_{52}BrN$	[24447-63-0]	Didodecylammonium bromide				
	TRS		49	346	DSC	[2005STE/VOI]
$C_{24}H_{52}BrN$	[4328-13-6]	Tetrahexylammonium bromide				
	TRS		1.2	148		
	TRS		0.2	167		
	TRS		3.43	196		
	TRS		6.71	305		
	TRS		11.97	315		
	FUS		15.97	374.9	DSC	[1992XEN/CHE]
	TRS		6.7	305		
	TRS		12.1	315		
	FUS		15.9	377	DSC	[1970COK/AMB]
$C_{24}H_{52}ClN$	[2486-85-3]	Didodecylammonium chloride				
	TRS		48	338	DSC	[2005STE/VOI]
$C_{24}H_{52}ClNO_3$	[619671-16-8]	Didodecylammonium chlorate				
	TRS		70	334.7	DSC	[2005STE/VOI]
$C_{24}H_{52}ClNO_4$	[869093-50-5]	Didodecylammonium perchlorate				
	TRS		72	335	DSC	[2005STE/VOI]
$C_{24}H_{52}ClNO_4$	[4656-81-9]	Tetrahexylammonium perchlorate				
	TRS		23.3	331.7		
	TRS		5.88	354.7		
	TRS		2.02	366.2		
	FUS		16.8	377.2	DSC	[1989NAK/KUW]
	TRS	(300–387)	22.99	333.6		

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	TRS	(300–387)	5.84	355.9		
	TRS	(300–387)	2.66	367.5		
	FUS	(300–387)	16.35	379.2	AC	[1996DOM/HEA, 1973AND/GOR]
	TRS		23.0	335		
	TRS		5.85	358		
	TRS		2.51	369		
	FUS		18.4	383	DSC	[1970COK/AMB]
$C_{24}H_{52}IN$	[2138-24-1]	Tetrahexylammonium iodide				
	TRS		28.7	345.1		
	TRS		5.71	352.3		
	FUS		16.62	378.7	DSC	[1992XEN/CHE]
	TRS		28.8	340.7		
	TRS		5.76	349.2		
	FUS		17.7	375.7	DSC	[1989NAK/KUW]
	TRS		24.3	344		
	TRS		5.86	352		
	FUS		17.15	378		[1971LEV/KOH]
$C_{24}H_{52}IN$	[16912-19-9]	Didodecylammonium iodide				
	TRS		38.5	338	DSC	[2005STE/VOI]
$C_{24}H_{52}N_2O_3$	[682-03-1]	Tetrahexylammonium nitrate				
	TRS		24.8	317.2		
	FUS		17.0	335.2	DSC	[1989NAK/KUW]
	TRS		22.2	323		
	FUS		17.6	345	DSC	[1970COK/AMB]
$C_{24}H_{52}N_2O_3$	[22377-08-8]	Didodecylammonium nitrate				
	TRS		77	339	DSC	[2005STE/VOI]
$C_{25}H_{45}F_6N_3O_4S_2$	[1453194-51-8]	1,3-didecylimidazolium bis(trifluoromethylsulfonyl)imide				
	V	(491–513)	125.4 ± 0.4	502	QCM	[2014ROC/COU]
	V	(491–513)	166.8 ± 1.1	298	QCM	[2014ROC/COU]
$C_{25}H_{54}BrN$	[21396-56-5]	Docosyl(trimethyl)ammonium bromide				
	TRS		78.7	382.6	DSC	[1981IWA/OHN]
$C_{25}H_{54}BrN$	[4328-15-8]	*N*-heptyl-*N*,*N*,*N*-trihexylammonium bromide				
	TRS		29.2	335		
	TRS		7.5	356		
	FUS		7.5	381	DSC	[1970COK/AMB]
$C_{25}H_{54}ClNO_4$	[5536-16-3]	*N*-heptyl-*N*,*N*,*N*-trihexylammonium perchlorate				
	TRS		16.3	362		
	FUS		24.3	376	DSC	[1970COK/AMB]
$C_{25}H_{54}IN$	[4328-14-7]	*N*-heptyl-*N*,*N*,*N*-trihexylammonium iodide				
	TRS		21.3	365		
	FUS		20.5	371	DSC	[1970COK/AMB]
$C_{26}H_{56}N_2O_3$	[5187-77-9]	*N*-heptyl-*N*,*N*,*N*-trihexylammonium nitrate				
	FUS		33.5	345	DSC	[1970COK/AMB]
$C_{26}H_{56}ClNO_4$	[4312-63-4]	*N*,*N*-dihexyl-*N*,*N*-diheptylammonium perchlorate				
	TRS		14.2	365		
	FUS		25.9	378	DSC	[1970COK/AMB]
$C_{26}H_{56}IN$	[4312-62-3]	*N*,*N*-dihexyl-*N*,*N*-diheptylammonium iodide				
	TRS		13.0	362		
	FUS		26.8	373	DSC	[1970COK/AMB]
$C_{27}H_{58}BrN$	[24298-17-7]	*N*-propyl-*N*,*N*,*N*-trioctylammonium bromide				
	FUS		44.4	351	DSC	[1970COK/AMB]
$C_{28}H_{60}BrN$	[4368-51-8]	Tetraheptylammonium bromide				
	TRS		4.1	336.4		

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	FUS		34.5	360.1	DSC	[2000ABD/WEI]
	TRS		5.4	343		
	FUS		36.0	369	DSC	[1970COK/AMB]
$C_{28}H_{60}ClNO_4$	[4312-65-6]	Tetraheptylammonium perchlorate				
	TRS		4.6	356		
	TRS		4.6	365		
	TRS		4.2	388		
	FUS		31.8	399	DSC	[1970COK/AMB]
$C_{28}H_{60}IN$	[3535-83-9]	Tetraheptylammonium iodide				
	TRS		9.20	358		
	TRS		2.51	392		
	FUS		36.40	396		[1971LEV/KOH]
	TRS		9.60	356		
	TRS		3.10	391		
	FUS		37.20	396	DSC	[1970COK/AMB]
$C_{32}H_{68}BF_4P$	[374683-55-3]	Trihexyl(tetradecyl)phosphonium tetrafluoroborate				
	V		180 ± 3	490	Mass Spec	[2012DEY/HES]
	V		198 ± 3	298	Mass Spec	[2012DEY/HES]
$C_{32}H_{68}C1N$	[3125-07-3]	Tetraoctylammonium chloride				
	FUS		22.6	291.7	DSC	[1989NAK/KUW]
$C_{32}H_{68}C1NO_4$	[25423-85-2]	Tetraoctylammonium perchlorate				
	TRS		4.68	343.2		
	FUS		46.5	407.2	DSC	[1989NAK/KUW]
$C_{32}H_{68}IN$	[16829-91-7]	Tetraoctylammonium iodide				
	TRS		3.54	354.7		
	FUS		48.7	401.2	DSC	[1989NAK/KUW]
$C_{32}H_{68}N_2O_3$	[33734-52-0]	Tetraoctylammonium nitrate				
	TRS		2.33	374.2		
	FUS		41.0	383.7	DSC	[1989NAK/KUW]
$C_{32}H_{70}Br_2N_2$	[443150-07-0]	*N*-dodecyl-*N*,*N*,*N*′,*N*′-tetramethyl-*N*′-tetradecyl-1,2-ethanediaminium dibromide				
	TRS		53.8	365		
	TRS		3.9	431		
	FUS		5.7	444	DSC	[2003SIK/SMI]
$C_{36}H_{48}BN$	[15556-39-5]	Tetrapropylammonium tetraphenylborate				
	TRS		22.6	468		
	FUS		12.1	480	DSC	[1970COK/AMB]
$C_{36}H_{76}BrN$	[103229-03-4]	Dioctadecylammonium bromide				
	TRS		81	371	DSC	[2005STE/VOI]
$C_{36}H_{76}CIN$	[6944-28-1]	Dioctadecylammonium chloride				
	TRS		97	364.4	DSC	[2005STE/VOI]
$C_{36}H_{76}CINO_4$	[869093-57-2]	Dioctadecylammonium perchlorate				
	TRS		115	361.3	DSC	[2005STE/VOI]
$C_{36}H_{76}IN$	[869093-54-9]	Dioctadecylammonium iodide				
	TRS		73	366	DSC	[2005STE/VOI]
$C_{36}H_{76}N_2O_3$	[869093-52-7]	Dioctadecylammonium nitrate				
	TRS		109	366.7	DSC	[2005STE/VOI]
$C_{36}H_{78}Br_2N_2$	[636562-64-6]	*N*-dodecyl-*N*,*N*,*N*′,*N*-tetramethyl-*N*′-tetradecyl-1,6-hexanediaminium dibromide				
	TRS		31.3	362		
	TRS		20.2	381		
	TRS		10.1	440		
	FUS		95	507	DSC	[2003SIK/SMI]
$C_{40}H_{56}BN$	[15522-59-5]	Tetrabutylammonium tetraphenylborate				

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
	TRS		6.7	458		
	FUS		38.5	502	DSC	[1970COK/AMB]
$C_{40}H_{84}BrN$	[14937-42-9]	Tetradecylammonium bromide				
	TRS		1.4	327.4		
	TRS		56.0	344.5		
	FUS		29.1	352.9	DSC	[2000ABD/WEI]
$C_{40}H_{84}BrP$	[49745-72-4]	Tetradecylphosphonium bromide				
	FUS		76.1	324.2	DSC	[2000ABD/WEI]
$C_{40}H_{86}Br_2N_2$	[636562-65-7]	*N*-dodecyl-*N*,*N*,*N*′,*N*′-tetramethyl-*N*′-tetradecyl-1,10-decanediaminium dibromide				
	TRS		65.4	360		
	FUS		15.5	423	DSC	[2003SIK/SMI]
$C_{44}H_{64}BN$	[59652-94-7]	Tetrapentylammonium tetraphenylborate				
	FUS		16.2	476.7	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-08-7]	*N*,*N*-dimethyl-*N*,*N*-dinonylammonium tetraphenylborate				
	FUS		41.0	356.2	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-09-8]	*N*-hexyl-*N*,*N*-dimethyl-*N*-dodecylammonium tetraphenylborate				
	FUS		27.6	352.2	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-21-4]	*N*-hexyl-*N*,*N*-dipropyl-*N*-octylammonium tetraphenylborate				
	FUS		34.3	385.2	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-23-6]	*N*-methyl-*N*,*N*-diheptyl-*N*-pentylammonium tetraphenylborate				
	FUS		26.4	378.7	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-25-8]	*N*-methyl-*N*-octyl-*N*-hexyl-*N*-pentylammonium tetraphenylborate				
	FUS		38.9	365.2	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-27-0]	*N*-methyl-*N*,*N*-dipentyl-*N*-nonylammonium tetraphenylborate				
	FUS		31.0	355.2	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-29-2]	*N*-methyl-*N*-butyl-*N*-hexyl-*N*-nonylammonium tetraphenylborate				
	FUS		20.9	337.2	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-31-6]	*N*-ethyl-*N*-butyl-*N*-propyl-*N*-undecylammonium tetraphenylborate				
	FUS		38.9	374.2	DSC	[1978GOR/RAO]
$C_{44}H_{64}BN$	[68796-33-8]	*N*-methyl-*N*-ethyl-*N*-octyl-*N*-nonylammonium tetraphenylborate				
	FUS		36.4	366.2	DSC	[1978GOR/RAO]
$C_{48}H_{100}BrN$	[14866-34-3]	Tetradodecylammonium bromide				
	TRS		32.0	343.5		
	FUS		66.7	359.9	DSC	[2000ABD/WEI]
$C_{48}H_{100}ClN$	[82944-72-7]	Tetradodecylammonium chloride				
	FUS		105.0	345.1	DSC	[2000ABD/WEI]
$C_{48}H_{100}IN$	[40797-39-5]	Tetradodecylammonium iodide				
	TRS		1.9	336.8		
	TRS		26.4	346.9		
	TRS		2.6	357.3		
	FUS		42.6	384.3	DSC	[2000ABD/WEI]
$C_{56}H_{116}BrN$	[139653-49-9]	Tetratetradecylammonium bromide				
	TRS		41.0	355.3		
	FUS		89.1	364.8	DSC	[2000ABD/WEI]
$C_{56}H_{132}BrN$	[139653-55-7]	Tetrahexadecylammonium bromide				
	TRS		72.6	365.6		
	FUS		100.6	372.9	DSC	[2000ABD/WEI]
$C_{72}H_{148}BrN$	[63462-99-7]	Tetraoctadecylammonium bromide				
	TRS		16.0	324.8		
	FUS		164.4	371.9	DSC	[2000ABD/WEI]

TABLE 18. Phase change enthalpies of organic salts and ionic liquids—Continued

Molecular formula	CAS Registry Number / Enthalpy	Compound / Temperature range	$\Delta_{trans}H_m$ (kJ/mol)	T_m (K)	Method	Reference
$C_{72}H_{148}BrP$	[58237-06-2]	Tetraoctadecylpho sphonium bromide				
	FUS		201.6	368.0	DSC	[2000ABD/WEI]
$C_{72}H_{148}ClNO_4$	[139653-59-1]	Tetraoctadecylammonium perchlorate				
	TRS		0.4	340.6		
	TRS		1.7	349.7		
	TRS		84.8	378.4		
	FUS		8.2	379.2	DSC	[2000ABD/WEI]
$C_{72}H_{148}ClO_4P$	[258888-10-7]	Tetraoctadecylphosphonium perchlorate				
	TRS		1.3	330.3		
	TRS		1.6	337.7		
	FUS		119.6	364.6	DSC	[2000ABD/WEI]
$C_{72}H_{148}IN$	[183552-31-0]	Tetraoctadecylammonium iodide				
	TRS		11.7	355.3		
	FUS		115.6	387.0	DSC	[2000ABD/WEI]
$C_{72}H_{148}IP$	[245071-84-5]	Tetraoctadecylphosphonium iodide				
	FUS		143.2	97.8	DSC	[2000ABD/WEI]

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