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NBS Special Publication 708

Standard Reference Data Publications 1964-1984

Joan C. Sauerwein and Geraldine R. Dalton

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Foreword

The National Standard Reference Data System was established in 1963 for the purpose of promoting the critical evaluation and dissemination of numerical data of the physical sciences. The program is coordinated by the Office of Standard Reference Data of the National Bureau of Standards but involves the efforts of many groups in universities, government laboratories, and private industry. The primary aim of the program is to provide compilations of critically evaluated physical and chemical property data. These tables are published in the Journal of Physical and Chemical Reference Data, in the NSRDS-NBS series of the National Bureau of Standards, and through other appropriate channels. Other outputs of the program include bibliographies, computer programs for handling data, and databases in magnetic tape format.

This listing includes all publications which have appeared since establishment of this program in 1964. Indexes to authors, properties, and material classes are given, as well as information on ordering publications.

**David R. Lide, Director
Office of Standard Reference Data**

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The National Bureau of Standards' Office of Standard Reference Data manages a network of data centers that prepare evaluated data bases of physical and chemical properties of substances. Data bases are available in printed form, on magnetic tapes and through on-line computer networks. This document provides a comprehensive list of the products available from the National Standard Reference Data System (NSRDS) for the years 1964-1984, including indexes qualified by author, material, and property terms. Ordering information and current prices can be found at the end of this document.

Key words: bibliographies; chemical properties; evaluated data; indexes; materials properties; physical properties; publication list.

1. Introduction

The National Standard Reference Data System (NSRDS), established in 1963, coordinates on a national scale the compilation and dissemination of reference data in the physical sciences. Under the Standard Reference Data Act (Public Law 90-396) the National Bureau of Standards (NBS) of the U.S. Department of Commerce has the primary responsibility in the Federal Government for providing reliable scientific and technical data. The Office of Standard Reference Data at NBS coordinates a complex of data evaluation centers, located in university, industrial, and other Government laboratories as well as within NBS.

These centers compile and critically evaluate numerical physical and chemical property data retrieved from the world's scientific literature.

This publications list includes NSRDS data compilations, critical reviews, and other publications which are available from various sources. Indexes by author, property, and materials class are included. Prices and ordering instructions for publications listed are given in this document and further information may be obtained from:

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See: Transition probabilities for atoms and molecules
Photon cross section

Activation energies of chemical reactions

See: Rate constants of chemical reactions

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Band gap

See: Energy bands of solids

Band spectra

See: Electronic molecular spectra

Binding energy

See: Atomic energy levels and spectra
Bond dissociation energy

Boiling point

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Bulk modulus

See: Elastic constants

Cell constants

See: Lattice constants

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Combustion, heat of

See: Thermodynamic properties
Heat of combustion

Compressibility factor

See: Equation of state

Compton scattering cross section

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Conductance

See: Electrical conductance

Conductivity, electrical

See: Electrical resistivity

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See: Thermal conductivity

Consolute point

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See: Thermal conductivity

Dipole moment

See: Electric dipole moment of molecules

Dissociation energy

See: Bond dissociation energy

Effective mass

See: Semiconductor properties

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Energy levels

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Bond dissociation energy
Electron affinity

Energy, dissociation

See: Bond dissociation energy
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See: Electrical conductance

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F-values

See: Transition probabilities for atoms and molecules

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See: Heat of formation
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See: Vibrational frequencies of molecules

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See: Diffusion coefficient

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See: Thermodynamic properties

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See: Rotational spectra

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Oscillator strengths

See: Transition probabilities for atoms and molecules

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See: Nuclear moments

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See: Vibrational spectra (infrared, Raman)

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See: Electrical resistivity

Rotational constants

See: Molecular energy levels and constants

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Specific conductance

See: Electrical conductance

Specific gravity

See: Density

Specific heat

See: Heat capacity

Thermodynamic properties

Spectra

See: Atomic energy levels and spectra

Rotational spectra

Vibrational spectra (infrared, Raman)

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Transport properties

See: Diffusion coefficient

Thermal conductivity

Viscosity

Vapor pressure (see also Equation of state)

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