IA-1004

Activity Coefficients
of Various Electrolytes

Molal and Molar
Concentrations

Compiled and Calculated

by
M. Gazith

Israel Atomic Energy Commission
Soreq Research Establishment
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ABSTRACT

Molal and molar concentrations were calculated by a numerical method for round values up to very high concentrations for 33 electrolytes, acids, bases and salts. The concentration values are tabulated together with molal activity coefficients, at 25°C, fitted graphically for each concentration. Introductory notes and 10 references.

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Notes

1. Notation used is m for molality, M for molecular weight, c for molar concentration, γ for mean molal, and y for mean molar activity coefficients.
2. Molar concentration was calculated from molal concentration, using the equation $m = \frac{c}{d - 0.001cM}$; and since $c = \frac{10pd}{M}$, where p is the weight percentage of the solute in the solution, then $m = \frac{10p}{M(1 - 0.01p)}$, and $p = \frac{mM}{10 + 0.01mM}$. The density data corresponding to the p values obtained were calculated by numerical interpolation of density data given in the literature. This method was found to be in excellent agreement with a graphical method based on $\frac{m}{c}$ ratios, but more reliable and much faster.
3. Molality data were calculated back from molarity data by numerical interpolation which was also found to be better than a graphical method.
4. Intermediate activity coefficient data were found by graphical and numerical interpolation, the latter when the change in γ was nearly linear.
5. The mean activity of the 1:1 electrolytes is $a = m\gamma = \frac{cy}{d_0}$. At 25° $d_0 = 0.9970$, hence y may be calculated from the data in the tables by the equation: $y = 0.9970 \gamma \frac{m}{c}$.

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HF (M = 20.01)

Ref. Int. Crit. Tables III, 54 (1928); Robinson-Stokes, p. 379

m	c (20°)	γ (25°)
0.001		0.544
.002		.446
.003		.371
.004		.327
.005		.300
.010		.224
.020		.168
.030		.136
.040		.117
.050		.106
.1000	0.0997	.077
.2000	.1992	.059
.3000	.2984	.044
.4000	.3973	.036
.5000	.4960	.031
.6000	.5945	.028
.7000	.6927	.027
.8000	.7907	.026
.9000	.8885	.025
1.000	.9860	.024

HF (M = 20.01) (Contd.)

Ref. Int. Crit. Tables III, 54 (1928); Robinson-Stokes, p. 379

m	c (20°)	m	c (20°)
1.000	0.986	23.00	17.41
1.015	1.000	24.00	17.97
2.000	1.948	24.06	18.00
2.062	2.000	25.00	18.51
3.000	2.885	25.91	19.00
3.126	3.000	26.00	19.05
4.000	3.799	27.00	19.57
4.226	4.000	27.86	20.00
5.000	4.690	28.00	20.07
5.357	5.000	29.00	20.57
6.000	5.558	29.89	21.00
6.522	6.000	30.00	21.05
7.000	6.405	31.00	21.53
7.720	7.000	32.00	21.99
8.000	7.232	32.02	22.00
8.953	8.000	33.00	22.45
9.000	8.038	34.00	22.89
10.00	8.822	34.25	23.00
10.23	9.000	35.00	23.32
11.00	9.587	36.00	23.75
11.55	10.00	36.60	24.00
12.00	10.33	37.00	24.16
12.92	11.00	38.00	24.57
13.00	11.06	39.00	24.97
14.00	11.77	39.07	25.00
14.34	12.00	40.00	25.36
15.00	12.46	41.00	25.75
15.80	13.00	41.68	26.00
16.00	13.13	42.00	26.12
17.00	13.79	43.00	26.49
17.33	14.00	44.00	26.85
18.00	14.43	44.43	27.00
18.91	15.00	45.00	27.20
19.00	15.06	46.00	27.55
20.00	15.67	47.00	27.89
20.56	16.00	47.34	28.00
21.00	16.26	48.00	28.22
22.00	16.84	49.00	28.55
22.73	17.00	50.00	28.87

No activity coefficient data available for this concentration range.

HCl (M = 36.47)

Ref. Int. Crit. Tables III, 54 (1928); Robinson-Stokes,
p.481; Conway, p.75; Harned-Owen, p.716

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.0001		(0.9891)	1.500	1.454	0.896
.0002		(.9842)	1.549	1.500	.906
.0005		(.9752)	1.600	1.548	.916
.0010		.966	1.655	1.600	.928
.0020		.952	1.700	1.642	.938
.0050		.929	1.7625	1.700	.952
.0100		.905	1.800	1.735	.960
.0200		.876	1.870	1.800	.978
.0500		.830	1.900	1.828	.985
.1000	0.0995	.796	1.978	1.900	1.004
.1005	.1000	.796	2.000	1.920	1.009
.200	.199	.767	2.085	2.000	1.033
.201	.200	.767	2.500	2.377	1.147
.300	.297	.756	2.637	2.500	1.193
.303	.300	.756	3.000	2.826	1.316
.400	.396	.755	3.198	3.000	1.395
.404	.400	.755	3.500	3.266	1.518
.500	.494	.757	3.772	3.500	1.652
.506	.500	.757	4.000	3.698	1.762
.600	.592	.763	4.358	4.000	1.962
.609	.600	.764	4.500	4.121	2.04
.700	.689	.772	4.956	4.500	2.35
.712	.700	.773	5.000	4.536	2.38
.800	.786	.783	5.500	4.944	2.77
.815	.800	.785	5.5705	5.000	2.83
.900	.882	.795	6.000	5.343	3.22
.918	.900	.797	6.200	5.500	3.46
1.000	.979	.809	6.500	5.735	3.80
1.022	1.000	.812	6.844	6.000	4.30
1.100	1.0745	.825	7.000	6.120	4.37
1.127	1.100	.828	7.500	6.497	5.13
1.200	1.170	.840	7.504	6.500	5.15
1.232	1.200	.846	8.000	6.868	5.90
1.300	1.265	.858	8.182	7.000	6.23
1.337	1.300	.865	8.500	7.232	6.90
1.400	1.360	.876	8.863	7.500	7.65
1.443	1.400	.885	9.000	7.588	7.94

HCl (M = 36.47) (Contd.)

m	c (25°)	r (25°)
9.500	7.937	9.20
9.591	8.000	9.42
10.00	8.281	10.44
10.31	8.500	10.92
11.00	8.947	13.51
11.08	9.000	13.81
11.86	9.500	16.72
12.00	9.588	17.25
12.67	10.00	20.3
13.00	10.21	21.8
14.00	10.80	27.3
14.35	11.00	29.7
15.00	11.37	34.1
16.00	11.92	42.4
16.145	12.00	(43.9)
17.00	12.45	(52.4)
18.00	12.97	(64.3)
18.07	13.00	(65.3)
19.00	13.46	(78.3)

HBr (M = 80.92)

Ref. Int. Crit. Tables III, 55 (1928); Robinson-Stokes, p. 481;

Landolt-Börnstein II, Eg II b, 1118 (1931)

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.001		0.966	1.673	1.600	1.053
.002		.952	1.700	1.625	1.060
.005		.930	1.782	1.700	1.085
.010		.906	1.800	1.717	1.094
.020		.879	1.892	1.800	1.124
.050		.838	1.900	1.808	1.130
.1000	0.0995	.805	2.000	1.898	1.168
.1005	.1000	.805	2.002	1.900	1.168
.200	.198	.782	2.114	2.000	1.218
.202	.200	.782	2.500	2.344	1.389
.300	.297	.777	2.679	2.500	1.486
.303	.300	.777	3.000	2.780	1.674
.400	.395	.781	3.259	3.000	1.92
.405	.400	.781	3.500	3.205	2.18
.500	.492	.789	3.855	3.500	2.60
.508	.500	.790	4.000	3.620	2.76
.600	.589	.801	4.468	4.000	3.40
.611	.600	.803	4.500	4.026	3.46
.700	.686	.815	5.000	4.423	4.24
.715	.700	.817	5.099	4.500	4.40
.800	.782	.832	5.500	4.812	4.68
.819	.800	.835	5.748	5.000	5.60
.900	.878	.850	6.000	5.192	6.14
.927	.900	.855	6.417	5.500	6.94
1.000	.973	.871	6.500	5.562	7.10
1.029	1.000	.877	7.000	5.926	8.23
1.100	1.067	.894	7.103	6.000	8.50
1.135	1.100	.902	7.500	6.283	9.63
1.200	1.161	.914	7.813	6.500	10.6
1.241	1.200	.928	8.000	6.629	11.2
1.300	1.255	.943	8.500	6.968	13.2
1.348	1.300	.950	8.547	7.000	13.4
1.400	1.348	.969	9.000	7.302	15.8
1.456	1.400	.985	9.304	7.500	17.6
1.500	1.441	.998	9.500	7.627	19.0
1.564	1.500	1.016	10.00	7.942	23.0
1.600	1.533	1.029	10.09	8.000	24.0

HBr (M = 80.92) (Contd.)

m	c (25°)	γ (25°)
10.90	8.500	32.5
11.00	8.559	33.4
11.75	9.000	44.0
12.00	9.144	47.7
12.63	9.500	59.0
13.00	9.708	66.7
13.54	10.00	80.0
14.00	10.25	91.2
15.00	10.76	
15.49	11.00	
16.00	11.25	
17.00	11.72	
17.61	12.00	
18.00	12.17	
19.00	12.61	
19.94	13.00	
20.00	13.02	
21.00	13.42	
22.00	13.80	
22.54	14.00	
23.00	14.17	
24.00	14.52	
25.00	14.86	
25.42	15.00	
26.00	15.19	
27.00	15.50	
28.00	15.80	
28.68	16.00	
29.00	16.09	
30.00	16.38	

HI (M = 127.93)

Ref. Int. Crit. Tables III, 55 (1928); Robinson-Stokes,
p.481, 491; Landolt-Börnstein II, Eg III c, 2144 (1931)

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.001		0.966	1.600	1.507	1.175
.002		.953	1.700	1.595	1.217
.005		.931	1.705	1.600	1.220
.010		.908	1.800	1.683	1.260
.020		.882	1.819	1.700	1.270
.050		.845	1.900	1.771	1.308
.1000	0.0993	.818	1.933	1.800	1.325
.1007	.1000	.818	2.000	1.858	1.356
.200	.198	.807	2.049	1.900	1.385
.202	.200	.807	2.166	2.000	1.450
.300	.296	.811	2.500	2.285	1.641
.304	.300	.811	2.760	2.500	1.830
.400	.393	.823	3.000	2.699	2.015
.407	.400	.824	3.374	3.000	2.44
.500	.490	.839	3.500	3.101	2.57
.511	.500	.841	4.000	3.489	3.14
.600	.585	.860	4.014	3.500	3.15
.615	.600	.863	4.500	3.865	3.80
.700	.680	.883	4.685	4.000	3.90
.721	.700	.888	5.000	4.229	4.50
.800	.775	.908	5.386	4.500	5.15
.827	.800	.915	5.500	4.580	5.30
.900	.867	.935	6.000	4.921	6.35
.934	.900	.944	6.121	5.000	6.88
1.000	.962	.963	6.500	5.247	7.80
1.041	1.000	.975	6.893	5.500	9.28
1.100	1.054	.995	7.000	5.569	9.71
1.150	1.100	1.010	7.500	5.877	12.40
1.200	1.146	1.027	7.705	6.000	13.90
1.259	1.200	1.047	8.000	6.176	16.10
1.300	1.237	1.063	8.500	6.470	22.7
1.370	1.300	1.076	8.554	6.500	23.5
1.400	1.327	1.098	9.000	6.752	30.5
1.480	1.400	1.127	9.459	7.000	41.0
1.500	1.417	1.136	9.500	7.022	42.5
1.593	1.500	1.170	10.00	7.291	57.9

Ref. Int. Crit. Tables III, 58 (1928); Davis and de Bruin

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.050		0.828	2.500	2.318	0.850
.100	0.0994	.790	2.714	2.500	.874
.1006	.100	.790	3.000	2.743	.913
.200	.198	.754	3.311	3.000	.957
.202	.200	.754	3.500	3.156	.984
.300	.2965	.735	3.930	3.500	1.048
.304	.300	.735	4.000	3.556	1.062
.400	.394	.725	4.500	3.945	1.146
.406	.400	.725	4.573	4.000	1.157
.500	.491	.720	5.000	4.323	1.228
.509	.500	.720	5.240	4.500	1.266
.600	.588	.717	5.500	4.691	1.308
.613	.600	.717	5.933	5.000	1.378
.700	.684	.717	6.000	5.048	1.390
.717	.700	.717	6.500	5.395	1.466
.800	.779	.718	6.655	5.500	1.490
.822	.800	.719	7.000	5.733	1.545
.900	.874	.720	7.406	6.000	1.607
.928	.900	.721	7.500	6.062	1.622
1.000	.968	.724	8.000	6.381	1.698
1.034	1.000	.725	8.191	6.500	1.726
1.100	1.062	.729	8.500	6.692	1.772
1.141	1.100	.730	9.000	6.992	1.844
1.200	1.155	.734	9.014	7.000	1.846
1.248	1.200	.737	9.500	7.283	1.913
1.300	1.248	.740	9.885	7.500	1.962
1.357	1.300	.744	10.00	7.565	1.978
1.400	1.340	.746	10.81	8.000	2.076
1.466	1.400	.751	11.00	8.105	2.100
1.500	1.431	.754	11.77	8.500	2.189
1.575	1.500	.759	12.00	8.616	2.232
1.600	1.523	.761	12.79	9.000	2.300
1.686	1.600	.768	13.00	9.100	2.322
1.700	1.613	.769	13.87	9.500	2.412
1.797	1.700	.777	14.00	9.558	2.424
1.800	1.703	.777	15.00	9.992	2.518
1.900	1.792	.786	15.02	10.00	2.52
1.909	1.800	.787	16.00	10.40	2.60
2.000	1.881	.795	17.00	10.79	2.68
2.021	1.900	.797	17.58	11.00	2.72
2.136	2.000	.809	18.00	11.15	2.75

HNO₃ (M = 63.02) (Contd.)

m	c (25°)	γ (25°)
19.00	11.50	2.825
20.00	11.83	2.90
20.53	12.00	2.93
21.00	12.15	2.96
22.00	12.45	3.02
23.00	12.73	3.07
24.00	13.00	3.12
25.00	13.26	3.17
26.00	13.50	3.22
27.00	13.74	3.27
28.00	13.96	3.31
28.17	14.00	3.315
29.00	14.18	3.35
30.00	14.38	3.39

Ref. Int. Crit. Tables III, 54 (1928); HBCP,
2053 (1962-3) Robinson-Stokes, p.491

m	c (25°)	γ(25°)	m	c (25°)	γ (25°)
0.1000	0.0992	0.803	2.083	1.900	1.085
.1008	.1000	.803	2.206	2.000	1.125
.200	.197	.778	2.500	2.243	1.227
.203	.200	.778	2.824	2.500	1.370
.300	.295	.768	3.000	2.639	1.448
.305	.300	.768	3.476	3.000	1.720
.400	.392	.766	3.500	3.019	1.726
.409	.400	.766	4.000	3.382	2.08
.500	.487	.769	4.165	3.500	2.22
.513	.500	.770	4.500	3.735	2.53
.600	.582	.776	4.887	4.000	3.00
.619	.600	.778	5.000	4.077	3.11
.700	.676	.785	5.500	4.408	3.85
.725	.700	.787	5.643	4.500	4.05
.800	.770	.795	6.000	4.729	4.76
.833	.800	.799	6.437	5.000	5.90
.900	.862	.808	6.500	5.039	6.05
.941	.900	.814	7.000	5.341	7.44
1.000	.954	.823	7.273	5.500	8.60
1.051	1.000	.832	7.500	5.632	9.65
1.100	1.045	.841	8.000	5.914	11.83
1.161	1.100	.852	8.157	6.000	13.00
1.200	1.135	.858	8.500	6.188	15.50
1.272	1.200	.874	9.000	6.454	19.11
1.300	1.225	.880	9.091	6.500	20.25
1.385	1.300	.898	9.500	6.710	25.0
1.400	1.313	.900	10.00	6.957	30.9
1.499	1.400	.924	10.09	7.000	31.9
1.500	1.401	.924	11.00	7.439	50.1
1.600	1.488	.947	11.14	7.500	54.0
1.613	1.500	.950	12.00	7.888	80.8
1.700	1.575	.973	12.26	8.000	87.0
1.729	1.600	.980	13.00	8.319	129.5
1.800	1.661	.998	13.44	8.500	159.0
1.846	1.700	1.012	14.00	8.726	205
1.900	1.746	1.027	14.72	9.000	287
1.964	1.800	1.045	15.00	9.108	322
2.000	1.831	1.055	16.00	9.474	500

HClO₄ (M = 100.47) (Contd.)

m	c (25°)	γ (25°)
16.08	9.500	(521)
17.00	9.819	(764)
17.56	10.00	(976)
18.00	10.14	(1142)
19.00	10.45	
20.00	10.74	
20.93	11.00	
21.00	11.02	
22.00	11.28	
23.00	11.53	
24.00	11.77	
25.00	11.99	
25.03	12.00	
26.00	12.21	
27.00	12.40	
28.00	12.59	
29.00	12.77	
30.00	12.95

Ref. Int. Crit. Tables III, 56 (1928); Landolt-Börnstein II,

Eg III c, 2147 (1936); Robinson-Stokes, p.462; Conway, p.91

m	c (25°)	(25°)	m	c (25°)	(25°)
0.0005		0.885	1.481	1.400	0.1266
.0007		.857	1.500	1.417	.1266
.001		.830	1.593	1.500	.1266
.002		.757	1.600	1.506	.1266
.003		.709	1.700	1.594	.1269
.005		.639	1.706	1.600	.1269
.007		.591	1.800	1.682	.1270
.010		.544	1.821	1.700	.1271
.020		.453	1.900	1.769	.1273
.030		.401	1.936	1.800	.1275
.050		.340	2.000	1.855	.1276
.070		.301	2.052	1.900	.1280
.100	0.0994	.2655	2.169	2.000	.1290
.1006	.1000	.2650	2.500	2.277	.1331
.200	.198	.2090	2.775	2.500	.1374
.202	.200	.2085	3.000	2.683	.1422
.300	.296	.1826	3.406	3.000	.1520
.304	.300	.1820	3.500	3.073	.1547
.400	.393	.1675	4.000	3.448	.1700
.407	.400	.1670	4.072	3.500	.1727
.500	.490	.1557	4.500	3.809	.1875
.511	.500	.1550	4.775	4.000	.1990
.600	.586	.1478	5.000	4.156	.2081
.615	.600	.1468	5.500	4.490	.2312
.700	.681	.1417	5.516	4.500	.2323
.720	.700	.1410	6.000	4.811	.2567
.800	.775	.1375	6.306	5.000	.2740
.826	.800	.1365	6.500	5.120	.2852
.900	.869	.1342	7.000	5.418	.3166
.933	.900	.1335	7.144	5.500	.326
1.000	.962	.1316	7.500	5.704	.350
1.041	1.000	.1310	8.000	5.981	.386
1.100	1.055	.1300	8.035	6.000	.389
1.149	1.100	.1290	8.500	6.249	.426
1.200	1.146	.1285	8.986	6.500	.466
1.259	1.200	.1280	9.000	6.507	.467
1.300	1.237	.1278	9.500	6.758	.512
1.369	1.300	.1272	10.00	7.000	.559
1.400	1.328	.1270	11.00	7.460	.661

H_2SO_4 (M = 98.08) (Contd.)

m	c (25°)	(25°)
11.09	7.500	0.671
12.00	7.892	.770
12.27	8.000	.802
13.00	8.298	.888
13.53	8.500	.956
14.00	8.679	1.017
14.89	9.000	1.139
15.00	9.038	1.154
16.00	9.377	1.300
16.39	9.500	1.359
17.00	9.696	1.450
18.00	9.998	1.608
18.01	10.00	1.610
19.00	10.28	1.771
20.00	10.55	1.940
21.00	10.81	2.114
21.78	11.00	2.259
22.00	11.05	2.300
23.00	11.29	2.495

LiCl (M = 42.40)

Ref. Int. Crit. Tables III, 77 (1928); Robinson-Stokes, p.491

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.050		(0.825)	3.198	3.000	1.217
.100	0.0995	.790	3.500	3.265	1.317
.1005	.100	.789	3.773	3.500	1.417
.200	.199	.757	4.000	3.696	1.510
.201	.200	.757	4.361	4.000	1.675
.300	.297	.744	4.500	4.117	1.741
.303	.300	.744	4.963	4.500	2.00
.400	.396	.740	5.000	4.531	2.02
.404	.400	.740	5.500	4.936	2.34
.500	.494	.739	5.580	5.000	2.40
.506	.500	.739	6.000	5.334	2.72
.600	.592	.743	6.213	5.500	2.91
.608	.600	.744	6.500	5.724	3.18
.700	.689	.748	6.850	6.000	3.56
.711	.700	.749	7.000	6.107	3.71
.800	.786	.755	7.500	6.482	4.34
.814	.800	.757	7.525	6.500	4.38
.900	.883	.764	8.000	6.851	5.10
.918	.900	.766	8.204	7.000	5.43
1.000	.979	.774	8.500	7.213	5.95
1.022	1.000	.776	8.903	7.500	6.75
1.100	1.075	.784	9.000	7.568	6.96
1.126	1.100	.787	9.500	7.917	8.13
1.200	1.170	.796	9.621	8.000	8.48
1.231	1.200	.800	10.00	8.260	9.40
1.300	1.266	.809	10.36	8.500	10.39
1.336	1.300	.814	11.00	8.929	12.55
1.400	1.360	.823	11.11	9.000	12.93
1.442	1.400	.829	11.89	9.500	15.97
1.500	1.455	.838	12.00	9.574	16.41
1.548	1.500	.845	12.69	10.00	19.4
1.600	1.549	.853	13.00	10.20	20.9
1.655	1.600	.861	14.00	10.80	26.2
1.700	1.642	.869	14.35	11.00	28.2
1.762	1.700	.879	15.00	11.38	31.9
1.800	1.736	.885	16.00	11.95	37.9
1.869	1.800	.898	16.09	12.00	38.5
1.900	1.829	.903	17.00	12.50	43.8
1.977	1.900	.917	17.94	13.00	49.5
2.000	1.921	.921	18.00	13.03	49.9
2.087	2.000	.938	19.00	13.54	56.4
2.500	2.378	1.026	19.92	14.00	62.0
2.636	2.500	1.058	20.00	14.04	62.4
3.000	2.826	1.156			

LiBr (M = 86.86)

Ref. Int. Crit. Tables III, 77 (1928); Robinson-Stokes, p.491;

Conway, p.75

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.050		(0.825)	3.000	2.775	1.341
.100	0.0995	.796	3.265	3.000	1.464
.1005	.100	.796	3.500	3.198	1.584
.200	.198	.766	3.866	3.500	1.807
.202	.200	.766	4.000	3.611	1.897
.300	.297	.756	4.484	4.000	2.267
.303	.300	.756	4.500	4.013	2.280
.400	.395	.752	5.000	4.406	2.74
.405	.400	.752	5.121	4.500	2.86
.500	.492	.753	5.500	4.792	3.27
.508	.500	.753	5.778	5.000	3.62
.600	.589	.758	6.000	5.166	3.92
.611	.600	.759	6.455	5.500	4.62
.700	.686	.767	6.500	5.533	4.73
.715	.700	.768	7.000	5.892	5.76
.800	.782	.777	7.154	6.000	6.15
.819	.800	.779	7.500	6.241	7.08
.900	.878	.789	7.877	6.500	8.20
.924	.900	.792	8.000	6.585	8.61
1.000	.973	.803	8.500	6.922	10.60
1.029	1.000	.807	8.619	7.000	11.13
1.100	1.067	.820	9.000	7.250	12.92
1.135	1.100	.826	9.392	7.500	15.25
1.200	1.161	.837	9.500	7.569	15.98
1.241	1.200	.844	10.00	7.889	19.92
1.300	1.255	.855	10.18	8.000	21.8
1.348	1.300	.864	11.00	8.500	31.0
1.400	1.348	.874	11.85	9.000	43.8
1.456	1.400	.886	12.00	9.089	46.3
1.500	1.441	.895	12.72	9.500	62.6
1.564	1.500	.909	13.00	9.659	70.6
1.600	1.533	.917	13.63	10.00	90.8
1.673	1.600	.934	14.00	10.20	104.7
1.700	1.625	.940	15.00	10.73	146.0
1.783	1.700	.960	15.52	11.00	171.5
1.800	1.716	.964	16.00	11.24	198
1.893	1.800	.988	17.00	11.73	260
1.900	1.807	.990	17.57	12.00	299
2.000	1.897	1.015	18.00	12.21	331
2.003	1.900	1.016	19.00	12.67	411
2.116	2.000	1.046	19.74	13.00	467
2.500	2.342	1.161	20.00	13.12	485
2.682	2.500	1.221	21.00	13.54	555

Ref. Int. Crit. Tables III, 78 (1928); Robinson-Stokes, p.491;

Kangro-Groeneveld

m	c (25°)	γ(25°)	m	c (25°)	γ (25°)
0.1000	0.0994	0.788	3.312	3.000	1.040
.1006	.1000	.788	3.500	3.156	1.071
.200	.198	.752	3.930	3.500	1.141
.202	.200	.752	4.000	3.556	1.152
.300	.297	.736	4.500	3.946	1.250
.304	.300	.736	4.568	4.000	1.263
.400	.394	.728	5.000	4.325	1.348
.406	.400	.728	5.237	4.500	1.394
.500	.491	.726	5.500	4.694	1.445
.509	.500	.726	5.925	5.000	1.528
.600	.588	.727	6.000	5.052	1.543
.613	.600	.727	6.500	5.402	1.657
.700	.684	.729	6.647	5.500	1.690
.717	.700	.730	7.000	5.740	1.770
.800	.779	.732	7.391	6.000	1.859
.822	.800	.733	7.500	6.072	1.884
.900	.874	.736	8.000	6.398	1.998
.927	.900	.737	8.160	6.500	2.038
1.000	.969	.740	8.500	6.716	2.123
1.034	1.000	.743	8.958	7.000	2.238
1.100	1.062	.750	9.000	7.026	2.249
1.140	1.100	.755	9.500	7.328	2.374
1.200	1.155	.761	9.792	7.500	2.448
1.248	1.200	.767	10.00	7.622	2.500
1.300	1.248	.772	10.66	8.000	2.675
1.356	1.300	.778	11.00	8.193	2.766
1.400	1.340	.783	11.55	8.500	2.912
1.465	1.400	.790	12.00	8.748	3.031
1.500	1.432	.795	12.46	9.000	3.154
1.575	1.500	.803	13.00	9.296	3.298
1.600	1.523	.806	13.37	9.500	3.397
1.685	1.600	.815	14.00	9.843	3.564
1.700	1.613	.817	14.29	10.00	3.637
1.796	1.700	.828	15.00	10.38	3.815
1.800	1.703	.829	16.00	10.91	4.066
1.900	1.793	.840	16.17	11.00	4.107
1.908	1.800	.841	17.00	11.45	4.309
2.000	1.882	.852	17.99	12.00	4.549
2.021	1.900	.854	18.00	12.01	4.551
2.135	2.000	.869	19.00	12.57	4.757
2.500	2.319	.916	19.75	13.00	4.911
2.714	2.500	.947	20.00	13.14	4.963
3.000	2.743	.989

Ref. Robinson-Stokes, p.491

m	γ (25°)
0.1	0.812
.2	.794
.3	.792
.4	.798
.5	.808
.6	.820
.7	.834
.8	.852
.9	.869
1.0	.887
1.2	.931
1.4	.979
1.6	1.034
1.8	1.093
2.0	1.158
2.5	1.350
3.0	1.582
3.5	1.866
4.0	2.18
No density data available	

NaOH (M = 40.01)

Ref. Int. Crit. Tables III, 79 (1928); Robinson-Stokes, p.492

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.0500	0.0500	0.818	2.500	2.493	0.741
.1000	.0998	.764	2.508	2.500	.741
.1002	.1000	.764	3.000	2.985	.782
.2000	.1996	.725	3.015	3.000	.783
.2004	.2000	.725	3.500	3.474	.833
.3000	.2995	.706	3.527	3.500	.836
.3005	.3000	.706	4.000	3.960	.901
.4000	.3995	.694	4.042	4.000	.908
.4005	.4000	.694	4.500	4.440	.982
.5000	.4995	.688	4.563	4.500	.994
.5005	.5000	.688	5.000	4.916	1.074
.6000	.5995	.683	5.089	5.000	1.092
.6005	.6000	.683	5.500	5.388	1.178
.7000	.6995	.680	5.627	5.500	1.208
.7006	.7000	.680	6.000	5.852	1.296
.8000	.7995	.677	6.162	6.000	1.346
.8006	.8000	.677	6.500	6.311	1.448
.9000	.8994	.676	6.708	6.500	1.510
.9006	.9000	.676	7.000	6.764	1.599
1.000	.9994	.677	7.264	7.000	1.705
1.001	1.000	.677	7.500	7.211	1.80
1.100	1.099	.678	7.827	7.500	1.95
1.101	1.100	.678	8.000	7.652	2.00
1.200	1.199	.679	8.400	8.000	2.23
1.201	1.200	.679	8.500	8.087	2.29
1.300	1.299	.682	8.982	8.500	2.53
1.301	1.300	.682	9.000	8.516	2.54
1.400	1.399	.684	9.500	8.937	2.90
1.401	1.400	.684	9.576	9.000	2.53
1.500	1.499	.687	10.00	9.353	3.22
1.501	1.500	.687	10.18	9.500	3.36
1.600	1.598	.690	10.80	10.00	3.84
1.602	1.600	.690	11.00	10.17	4.09
1.700	1.698	.694	12.00	10.96	5.18
1.702	1.700	.694	12.06	11.00	5.26
1.800	1.798	.698	13.00	11.70	6.48
1.802	1.800	.698	13.40	12.00	6.70
1.900	1.897	.702	14.00	12.43	8.02
1.903	1.900	.702	14.80	13.00	9.37
2.000	1.997	.707	15.00	13.14	9.71
2.003	2.000	.707	16.00	13.82	11.55

NaOH (M = 40.01) (Contd.)

m	c (25°)	γ (25°)
16.27	14.00	12.06
17.00	14.48	13.43
17.82	15.00	15.02
18.00	15.12	15.37
19.00	15.73	17.33
19.46	16.00	18.23
20.00	16.32	19.28
21.00	16.89	(21.23)
21.19	17.00	(21.6)
22.00	17.45	(23.2)
23.00	17.99	(25.1)
23.01	18.00	(25.1)
24.00	18.51	(27.1)
24.96	19.00	(29.0)
25.00	19.02	(29.0)

NaF (M = 42.00)

Ref. Int. Crit. Tables III, 79 (1928) Robinson-Stokes, p. 492

m	c (18°)	$\gamma(25^\circ)$
0.1000	0.0999	0.765
.1001	.1000	.765
.2000	.1998	.710
.2002	.2000	.710
.3000	.2998	.676
.3002	.3000	.676
.4000	.3997	.651
.4003	.4000	.651
.5000	.4997	.632
.5003	.5000	.632
.6000	.5997	.616
.6003	.6000	.616
.7000	.6997	.603
.7003	.7000	.603
.8000	.7996	.592
.8004	.8000	.592
.9000	.8994	.582
.9006	.9000	.582
1.0000	.9993	.573
1.0007	1.0000	.573
1.1000	1.0991	.564
1.1009	1.1000	.564
1.2000	1.1989	.556

NaCl (M = 58.45)

Ref. Int. Crit. Tables III, 79 (1928); Robinson-Stokes,
p. 492; Conway, p. 63

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.001		0.9651	1.337	1.300	0.655
.002		.9519	1.400	1.360	.655
.005		.9273	1.442	1.400	.655
.010		.9022	1.500	1.454	.656
.020		.8707	1.549	1.500	.656
.050		.8192	1.600	1.548	.657
.1000	0.0995	.778	1.655	1.600	.658
.1005	.100	.778	1.700	1.642	.660
.200	.199	.735	1.762	1.700	.661
.201	.200	.735	1.800	1.735	.662
.300	.298	.710	1.870	1.800	.664
.303	.300	.710	1.900	1.828	.665
.400	.396	.693	1.978	1.900	.667
.404	.400	.692	2.000	1.920	.668
.500	.494	.681	2.087	2.000	.668
.506	.500	.681	2.500	2.376	.688
.600	.592	.673	2.639	2.500	.695
.609	.600	.672	3.000	2.822	.714
.700	.689	.667	3.203	3.000	.727
.711	.700	.666	3.500	3.259	.746
.800	.786	.662	3.782	3.500	.767
.814	.800	.662	4.000	3.686	.783
.900	.883	.659	4.376	4.000	.815
.918	.900	.659	4.500	4.104	.826
1.000	.979	.657	4.985	4.500	.873
1.022	1.000	.657	5.000	4.513	.874
1.100	1.075	.655	5.500	4.913	.928
1.126	1.100	.655	5.611	5.000	.941
1.200	1.170	.654	6.000	5.304	.986
1.231	1.200	.654	6.255	5.500	1.018
1.300	1.265	.654	6.500	5.688	1.049

NaBr (M = 102.91)

Ref. Int. Crit. Tables III, 80 (1928); Robinson-Stokes, p.492

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.1000	0.0995	0.782	1.500	1.440	0.702
.1005	.1000	.781	1.565	1.500	.705
.200	.198	.741	1.600	1.533	.706
.202	.200	.741	1.674	1.600	.710
.300	.297	.719	1.700	1.624	.712
.303	.300	.718	1.783	1.700	.717
.400	.395	.704	1.800	1.715	.718
.405	.400	.704	1.893	1.800	.724
.500	.492	.697	1.900	1.806	.725
.508	.500	.697	2.000	1.896	.731
.600	.589	.692	2.004	1.900	.731
.611	.600	.692	2.117	2.000	.740
.700	.686	.689	2.500	2.340	.768
.715	.700	.689	2.685	2.500	.784
.800	.782	.687	3.000	2.772	.812
.819	.800	.687	3.271	3.000	.841
.900	.878	.687	3.500	3.193	.865
.924	.900	.687	3.875	3.500	.913
1.000	.973	.687	4.000	3.602	.929
1.029	1.000	.688	4.496	4.000	1.003
1.100	1.067	.690	4.500	4.003	1.003
1.135	1.100	.690	5.000	4.391	1.09
1.200	1.161	.692	5.144	4.500	1.11
1.241	1.200	.693	5.500	4.770	1.18
1.300	1.255	.696	5.811	5.000	1.25
1.349	1.300	.697	6.000	5.140	1.29
1.400	1.348	.699	6.500	5.497	1.40
1.456	1.400	.701			

NaI (M = 149.92)

Ref. Int. Crit. Tables III, 80 (1928); Landolt-Börnstein II,

Eg III c, 2152 (1936); Miller-Sheridan

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.001		0.996	1.800	1.684	0.801
.002		.955	1.819	1.700	.802
.050		.935	1.900	1.771	.810
.010		.917	1.934	1.800	.813
.020		.895	2.000	1.857	.820
.050		.840	2.049	1.900	.827
.1000	0.0994	.785	2.168	2.000	.845
.1006	.1000	.785	2.500	2.282	.915
.200	.198	.749	2.766	2.500	.975
.300	.296	.737	3.000	2.692	1.034
.400	.393	.729	3.390	3.000	1.145
.407	.400	.728	3.500	3.087	1.180
.500	.490	.723	4.000	3.470	1.345
.511	.500	.723	4.041	3.500	1.360
.600	.586	.722	4.500	3.837	1.523
.615	.600	.722	4.727	4.000	1.605
.700	.681	.723	5.000	4.196	1.72
.720	.700	.724	5.444	4.500	1.93
.800	.775	.726	5.500	4.538	1.96
.826	.800	.727	6.000	4.875	2.23
.900	.869	.731	6.194	5.000	2.29
.933	.900	.733	6.500	5.196	2.55
1.000	.962	.737	6.983	5.500	2.83
1.041	1.000	.740	7.000	5.511	2.84
1.100	1.054	.744	7.500	5.816	3.27
1.149	1.100	.747	7.817	6.000	3.52
1.200	1.146	.751	8.000	6.106	3.68
1.259	1.200	.756	8.500	6.394	4.17
1.300	1.238	.759	8.690	6.500	4.37
1.369	1.300	.765	9.000	6.673	4.70
1.400	1.328	.767	9.500	6.940	5.29
1.480	1.400	.774	9.617	7.000	5.42
1.500	1.418	.775	10.00	7.196	5.93
1.592	1.500	.782	10.60	7.500	6.80
1.600	1.507	.783	11.00	7.703	7.40
1.700	1.596	.792	11.63	8.000	8.40
1.705	1.600	.792	12.00	8.171	9.00

Ref. HBCP, 2122 (1962-3); Robinson-Stokes, p.492; Miller-Sheridan

m	c (18°)	γ (25°)	m	c (18°)	γ (25°)
0.1000	0.0994	0.775	2.088	1.900	0.609
.1006	.1000	.775	2.213	2.000	.609
.200	.198	.729	2.500	2.234	.609
.202	.200	.729	2.842	2.500	.610
.300	.296	.701	3.000	2.623	.611
.304	.300	.700	3.500	2.996	.617
.400	.392	.683	3.506	3.000	.617
.408	.400	.682	4.000	3.353	.626
.500	.488	.668	4.215	3.500	.631
.512	.500	.667	4.500	3.695	.637
.600	.583	.656	4.967	4.000	.648
.618	.600	.654	5.000	4.021	.649
.700	.678	.648	5.500	4.334	.662
.724	.700	.646	5.777	4.500	.670
.800	.771	.641	6.000	4.634	.677
.831	.800	.639	6.500	4.921	.690
.900	.863	.635	6.644	5.000	.690
.940	.900	.633	7.000	5.196	.706
1.000	.955	.629	7.500	5.458	.720
1.049	1.000	.627	7.582	5.500	.720
1.100	1.046	.626	8.000	5.713	.736
1.160	1.100	.624	8.500	5.957	.750
1.200	1.136	.622	8.592	6.000	.757
1.272	1.200	.620	9.000	6.191	.770
1.300	1.225	.619	9.500	6.416	.790
1.385	1.300	.617	9.693	6.500	.800
1.400	1.313	.616	10.00	6.633	.810
1.499	1.400	.615	10.89	7.000	.846
1.500	1.401	.615	11.00	7.044	.850
1.600	1.488	.613	12.00	7.425	.890
1.614	1.500	.613	12.21	7.500	.900
1.700	1.574	.612	13.00	7.780	.933
1.731	1.600	.612	13.66	8.000	.960
1.800	1.659	.611	14.00	8.112	.975
1.849	1.700	.610	15.00	8.422	1.02
1.900	1.743	.610	15.27	8.500	1.03
1.968	1.800	.609	16.00	8.713	1.06
2.000	1.827	.609			

NaCNS (M = 81.08)

Ref. Int. Crit. Tables III, 85 (1928); Robinson-Stokes,
p. 493; Miller-Sheridan

m	c (18°)	γ (25°)	m	c (18°)	γ (25°)
0.1000	0.0995	0.787	2.500	2.266	0.770
.1005	.1000	.787	2.791	2.500	.790
.200	.198	.750	3.000	2.668	.804
.202	.200	.749	3.430	3.000	.847
.300	.296	.731	3.500	3.054	.854
.304	.300	.730	4.000	3.426	.897
.400	.393	.720	4.103	3.500	.910
.407	.400	.719	4.500	3.784	.955
.500	.490	.715	4.813	4.000	.995
.511	.500	.714	5.000	4.129	1.02
.600	.585	.712	5.500	4.460	1.09
.615	.600	.712	5.564	4.500	1.10
.700	.680	.710	6.000	4.775	1.16
.721	.700	.710	6.371	5.000	1.21
.800	.774	.710	6.500	5.079	1.23
.828	.800	.710	7.000	5.375	1.31
.900	.868	.711	7.218	5.500	1.34
.935	.900	.711	7.500	5.662	1.39
1.000	.961	.712	8.000	5.938	1.49
1.043	1.000	.713	8.114	6.000	1.51
1.100	1.052	.714	8.500	6.209	1.59
1.152	1.100	.715	9.000	6.474	1.69
1.200	1.144	.716	9.051	6.500	1.70
1.262	1.200	.718	9.500	6.730	1.79
1.300	1.234	.720	10.00	6.977	1.90
1.373	1.300	.722	10.05	7.000	1.91
1.400	1.324	.723	11.00	7.463	2.10
1.485	1.400	.726	11.08	7.500	2.11
1.500	1.413	.727	12.00	7.921	2.30
1.598	1.500	.730	12.18	8.000	2.32
1.600	1.502	.730	13.00	8.364	2.46
1.700	1.589	.734	13.32	8.500	2.51
1.713	1.600	.734	14.00	8.789	2.63
1.800	1.676	.737	14.53	9.000	2.72
1.828	1.700	.738	15.00	9.190	2.80
1.900	1.762	.741	15.78	9.500	2.90
1.944	1.800	.742	16.00	9.587	2.93
2.000	1.848	.744	17.00	9.965	3.06
2.061	1.900	.748	17.10	10.00	3.08
2.182	2.000	.757	18.00	10.32	3.20

NH₄Cl (M = 53.50)

Ref. Int. Crit. Tables III, 60 (1928); Robinson-Stokes, p.495

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.1000	0.0993	0.770	1.483	1.400	0.582
.1007	.1000	.769	1.500	1.416	.581
.200	.198	.718	1.595	1.500	.578
.202	.200	.717	1.600	1.505	.578
.300	.296	.687	1.700	1.593	.576
.304	.300	.686	1.708	1.600	.576
.400	.393	.665	1.800	1.680	.574
.407	.400	.664	1.822	1.700	.574
.500	.489	.649	1.900	1.767	.572
.511	.500	.647	1.938	1.800	.571
.600	.585	.636	2.000	1.854	.570
.616	.600	.634	2.054	1.900	.569
.700	.680	.625	2.173	2.000	.568
.721	.700	.623	2.500	2.276	.564
.800	.774	.617	2.775	2.500	.562
.827	.800	.615	3.000	2.683	.561
.900	.868	.609	3.404	3.000	.560
.934	.900	.607	3.500	3.076	.560
1.000	.961	.603	4.000	3.454	.560
1.042	1.000	.601	4.062	3.500	.560
1.100	1.053	.598	4.500	3.820	.561
1.151	1.100	.595	4.755	4.000	.561
1.200	1.145	.592	5.000	4.173	.562
1.261	1.200	.590	5.479	4.500	.563
1.300	1.236	.588	5.500	4.514	.563
1.371	1.300	.585	6.000	4.844	.564
1.400	1.326	.584

Ref. Int. Crit. Tables III, 59 (1928); Robinson-Stokes, p.495

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.1000	0.0992	0.740	2.500	2.221	0.391
.1008	.1000	.740	2.861	2.500	.374
.2000	.1985	.677	3.000	2.607	.368
.203	.200	.676	3.500	2.977	.348
.300	.295	.636	3.532	3.000	.347
.305	.300	.634	4.000	3.331	.331
.400	.391	.606	4.250	3.500	.323
.409	.400	.603	4.500	3.670	.316
.500	.487	.582	5.000	3.995	.302
.514	.500	.579	5.008	4.000	.302
.600	.581	.562	5.500	4.307	.290
.620	.600	.558	5.821	4.500	.283
.700	.675	.545	6.000	4.607	.279
.727	.700	.541	6.500	4.895	.270
.800	.768	.530	6.689	5.000	.266
.835	.800	.524	7.000	5.173	.2605
.900	.860	.516	7.500	5.440	.2527
.944	.900	.510	7.618	5.500	.2510
1.000	.951	.504	8.000	5.697	.245
1.054	1.000	.498	8.500	5.944	.2383
1.100	1.041	.493	8.617	6.000	.2368
1.166	1.100	.487	9.000	6.183	.2318
1.200	1.131	.483	9.500	6.414	.266
1.278	1.200	.475	9.694	6.500	.224
1.300	1.219	.473	10.00	6.636	.2205
1.392	1.300	.465	10.81	7.000	.2125
1.400	1.307	.464	11.00	7.059	.2104
1.500	1.394	.455	12.00	7.454	.2016
1.507	1.400	.454	12.12	7.500	.2007
1.600	1.480	.447	13.00	7.823	.1935
1.623	1.500	.446	13.51	8.000	.1900
1.700	1.566	.440	14.00	8.171	.1865
1.741	1.600	.437	15.00	8.497	.1795
1.800	1.650	.433	15.01	8.500	.1795
1.859	1.700	.429	16.00	8.804	.1735
1.900	1.734	.426	16.67	9.000	.170
1.979	1.800	.421	17.00	9.095	.168
2.000	1.817	.419	18.00	9.368	.1625
2.101	1.900	.413	18.51	9.500	.160
2.226	2.000	.404	19.00	9.627	.1575
			20.00	9.873	.1535

KOH (M = 56.10)

Ref. Int. Crit. Tables III, 86 (1928); Robinson-Stokes,
p. 494; Kangro-Groeneveld

m	c (15°)	γ (25°)	m	c (15°)	γ (25°)
0.1000	0.0999	0.776	3.500	3.374	1.181
.1001	.1000	.776	3.638	3.500	1.220
.2000	.1996	.739	4.000	3.829	1.314
.2004	.2000	.739	4.193	4.000	1.385
.3000	.2993	.721	4.500	4.272	1.49
.3008	.3000	.721	4.758	4.500	1.59
.4000	.3988	.713	5.000	4.715	1.67
.4012	.4000	.713	5.331	5.000	1.81
.5000	.4981	.712	5.500	5.146	1.90
.5019	.5000	.712	5.918	5.500	2.10
.6000	.5974	.712	6.000	5.569	2.14
.6027	.6000	.712	6.500	5.984	2.47
.7000	.6964	.715	6.520	6.000	2.48
.7037	.7000	.715	7.000	6.391	2.80
.8000	.7952	.721	7.136	6.500	2.93
.8048	.8000	.721	7.500	6.791	3.24
.9000	.8939	.728	7.767	7.000	3.45
.9062	.9000	.728	8.000	7.183	3.66
1.000	.9924	.735	8.413	7.500	4.10
1.008	1.000	.736	8.500	7.567	4.20
1.100	1.091	.745	9.000	7.944	4.72
1.110	1.100	.746	9.076	8.000	4.85
1.200	1.189	.754	9.500	8.314	5.40
1.212	1.200	.755	9.758	8.500	5.75
1.300	1.287	.766	10.00	8.675	6.05
1.314	1.300	.768	10.46	9.000	6.90
1.400	1.384	.778	11.00	9.378	7.87
1.416	1.400	.780	11.18	9.500	8.25
1.500	1.482	.791	11.92	10.00	10.0
1.519	1.500	.794	12.00	10.05	10.2
1.600	1.579	.804	13.00	10.70	12.8
1.622	1.600	.807	13.48	11.00	14.1
1.700	1.676	.818	14.00	11.32	15.4
1.725	1.700	.822	15.00	11.92	19.1
1.800	1.772	.832	15.13	12.00	19.6
1.829	1.800	.837	16.00	12.50	23.9
1.900	1.869	.848	16.90	13.00	28.5
1.933	1.900	.853	17.00	13.05	29.0
2.000	1.965	.863	18.00	13.59	34.43
2.037	2.000	.869	18.80	14.00	39.7
2.500	2.442	.947	19.00	14.10	41.0
2.562	2.500	.960	20.00	14.60	47.6
3.000	2.911	1.051	20.85	15.00	54.2
3.096	3.000	1.078	21.00	15.07	55.4

KCl (M = 74.55)

Ref. Int. Crit. Tables III, 87 (1928); Conway, p.86;

Robinson-Stokes, p.494

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.001		0.9650	1.200	1.156	0.593
.002		.9516	1.247	1.200	.591
.005		.9270	1.300	1.249	.590
.010		.9015	1.355	1.300	.588
.020		.8694	1.400	1.341	.586
.050		.8164	1.464	1.400	.584
.1000	0.0994	.770	1.500	1.433	.583
.1006	.1000	.769	1.574	1.500	.581
.200	.198	.718	1.600	1.524	.580
.202	.200	.717	1.684	1.600	.578
.300	.297	.688	1.700	1.614	.578
.303	.300	.687	1.795	1.700	.576
.400	.394	.666	1.800	1.704	.576
.406	.400	.665	1.900	1.794	.575
.500	.492	.649	1.907	1.800	.575
.509	.500	.648	2.000	1.883	.573
.600	.588	.637	2.020	1.900	.573
.612	.600	.636	2.134	2.000	.572
.700	.684	.626	2.500	2.319	.569
.716	.700	.625	2.714	2.500	.569
.800	.780	.618	3.000	2.742	.569
.821	.800	.616	3.314	3.000	.571
.900	.875	.610	3.500	3.152	.572
.927	.900	.609	3.936	3.500	.576
1.000	.969	.604	4.000	3.551	.577
1.033	1.000	.602	4.500	3.937	.583
1.100	1.063	.599	4.584	4.000	.586
1.140	1.100	.597	5.000	4.312	.591

KBr (M = 119.01)

Ref. Int. Crit. Tables III, 87 (1928); Robinson-Stokes, p.494

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.1000	0.0994	0.772	1.479	1.400	0.600
.1006	1.000	.770	1.500	1.419	.600
.200	.198	.722	1.591	1.500	.598
.202	.200	.721	1.600	1.508	.598
.300	.296	.693	1.700	1.597	.597
.304	.300	.692	1.703	1.600	.597
.400	.393	.673	1.800	1.685	.595
.407	.400	.672	1.817	1.700	.595
.500	.490	.657	1.900	1.773	.594
.510	.500	.656	1.932	1.800	.594
.600	.586	.646	2.000	1.859	.593
.615	.600	.645	2.047	1.900	.593
.700	.681	.636	2.166	2.000	.593
.720	.700	.635	2.500	2.284	.593
.800	.776	.629	2.764	2.500	.594
.826	.800	.627	3.000	2.694	.595
.900	.870	.622	3.387	3.000	.599
.933	.900	.620	3.500	3.089	.600
1.000	.963	.617	4.000	3.473	.608
1.040	1.000	.615	4.037	3.500	.609
1.100	1.055	.612	4.500	3.840	.616
1.148	1.100	.610	4.723	4.000	.621
1.200	1.147	.608	5.000	4.198	.626
1.258	1.200	.606	5.439	4.500	.635
1.300	1.239	.605	5.500	4.542	.636
1.368	1.300	.603	6.000	4.878	.646
1.400	1.329	.602			

KCNS (M = 97.18)

Ref. Int. Crit. Tables III, 91 (1928); Robinson-Stokes, p.494

m	c (18°)	γ (25°)	m	c (18°)	γ (25°)
0.1000	0.0994	0.769	1.400	1.306	0.577
.1007	.1000	.769	1.500	1.393	.573
.200	.198	.716	1.508	1.400	.573
.202	.200	.715	1.600	1.479	.569
.300	.295	.685	1.625	1.500	.568
.305	.300	.684	1.700	1.564	.565
.400	.392	.663	1.743	1.600	.564
.409	.400	.662	1.800	1.648	.562
.500	.487	.646	1.862	1.700	.560
.514	.500	.644	1.900	1.731	.559
.600	.582	.633	1.983	1.800	.557
.619	.600	.631	2.000	1.814	.556
.700	.676	.623	2.105	1.900	.554
.726	.700	.620	2.232	2.000	.551
.800	.768	.614	2.500	2.215	.546
.835	.800	.611	2.872	2.500	.540
.900	.860	.606	3.000	2.598	.538
.944	.900	.603	3.500	2.963	.533
1.000	.951	.599	3.553	3.000	.532
1.054	1.000	.596	4.000	3.312	.529
1.100	1.041	.593	4.282	3.500	.527
1.166	1.100	.589	4.500	3.646	.526
1.200	1.130	.587	5.000	3.964	.524
1.279	1.200	.583	5.059	4.000	.524
1.300	1.219	.582	5.500	4.268	.522
1.393	1.300	.577			

KCNS (M = 97.18) (Contd.)

m	c (25°)	γ (25°)
4.500	3.644	0.526
5.000	3.960	.524
5.066	4.000	.524
5.500	4.261	.522
5.911	4.500	.521
6.000	4.552	.520
6.500	4.829	(.518)
6.821	5.000	(.517)
7.000	5.095	(.516)
7.500	5.352	(.514)
7.802	5.500	(.513)
8.000	5.597	(.512)
8.500	5.834	
8.864	6.000	
9.000	6.062	
9.500	6.281	
10.00	6.493	
10.02	6.500	
11.00	6.893	
11.29	7.000	
12.00	7.266	
12.67	7.500	
13.00	7.613	
14.00	7.938	
14.20	8.000	
15.00	8.242	
15.90	8.500	
16.00	8.528	
17.00	8.797	
17.01	9.000	
18.00	9.050	
19.00	9.288	
19.93	9.500	
20.00	9.515	
21.00	9.728	
22.00	9.930	
22.36	10.00	
23.00	10.12	
24.00	10.30	

RbCl (M = 120.94)

Ref. Int. Crit. Tables III, 93 (1928); Robinson-Stokes, p. 495

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.1000	0.0994	0.764	1.600	1.512	0.556
.1006	.1000	.764	1.699	1.600	.554
.200	.198	.709	1.700	1.601	.554
.202	.200	.708	1.800	1.690	.551
.300	.296	.675	1.812	1.700	.551
.304	.300	.674	1.900	1.777	.548
.400	.394	.652	1.926	1.800	.548
.407	.400	.651	2.000	1.865	.546
.500	.490	.634	2.041	1.900	.545
.510	.500	.633	2.158	2.000	.544
.600	.587	.620	2.500	2.292	.539
.614	.600	.618	2.752	2.500	.538
.700	.682	.608	3.000	2.704	.536
.719	.700	.606	3.371	3.000	.536
.800	.777	.599	3.500	3.103	.536
.825	.800	.597	4.000	3.489	.538
.900	.871	.590	4.015	3.500	.538
.931	.900	.588	4.500	3.860	.541
1.000	.964	.583	4.694	4.000	.543
1.038	1.000	.581	5.000	4.221	.546
1.100	1.057	.577	5.404	4.500	.549
1.146	1.100	.575	5.500	4.566	.550
1.200	1.150	.572	6.000	4.905	.554
1.255	1.200	.569	6.147	5.000	.556
1.300	1.241	.567	6.500	5.229	.560
1.365	1.300	.565	6.930	5.500	.565
1.400	1.332	.563	7.000	5.544	.566
1.475	1.400	.560	7.500	5.851	.575
1.500	1.422	.559	7.754	6.000	.579
1.587	1.500	.556	8.000	6.145	.583

CsCl (M = 168.37)

Ref. Int. Crit. Tables III, 94 (1928); Robinson-Stokes,
p. 495; Conway, p. 78

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.1000	0.0993	0.756	1.836	1.700	0.500
.1007	.1000	.756	1.900	1.755	.499
.200	.198	.694	1.953	1.800	.497
.202	.200	.694	2.000	1.840	.496
.300	.296	.656	2.071	1.900	.494
.305	.300	.655	2.193	2.000	.492
.400	.393	.628	2.500	2.254	.485
.408	.400	.626	2.808	2.500	.481
.500	.489	.606	3.000	2.653	.479
.512	.500	.604	3.453	3.000	.476
.600	.584	.589	3.500	3.036	.475
.617	.600	.586	4.000	3.402	.474
.700	.679	.575	4.138	3.500	.474
.723	.700	.572	4.500	3.757	.474
.800	.772	.563	4.858	4.000	.475
.830	.800	.560	5.000	4.096	.475
.900	.865	.553	5.500	4.425	.477
.937	.900	.550	5.620	4.500	.478
1.000	.958	.544	6.000	4.738	.480
1.046	1.000	.540	6.428	5.000	.483
1.100	1.049	.536	6.500	5.045	.483
1.156	1.100	.532	7.000	5.336	.486
1.200	1.140	.529	7.291	5.500	.489
1.267	1.200	.525	7.500	5.618	.491
1.300	1.230	.524	8.000	5.893	.496
1.378	1.300	.519	8.204	6.000	.498
1.400	1.319	.518	8.500	6.155	.500
1.491	1.400	.514	9.000	6.406	.503
1.500	1.408	.514	9.187	6.500	.504
1.600	1.496	.509	9.500	6.657	.506
1.605	1.500	.509	10.00	6.896	.508
1.700	1.583	.505	10.23	7.000	.509
1.720	1.600	.504	11.00	7.342	.512
1.800	1.669	.501			

CaCl₂ (M = 110.99)

Ref. Int. Crit. Tables III, 72 (1928) Robinson-Stokes, p.478-481

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.0010		0.8893	1.456	1.400	0.603
.0016		.8640	1.500	1.441	.615
.0020		.8519	1.564	1.500	.634
.0050		.7888	1.600	1.533	.644
.0064		.7667	1.674	1.600	.670
.0100		.7314	1.700	1.624	.678
.0144		.6947	1.784	1.700	.707
.0200		.6681	1.800	1.714	.712
.0256		.6397	1.895	1.800	.750
.0400		.5974	1.900	1.805	.752
.0500		.5825	2.000	1.894	.792
.0576		.5642	2.066	1.900	.823
.0784		.5377	2.120	2.000	.850
.1000	0.0995	.518	2.500	2.334	1.063
.1005	.1000	.518	2.695	2.500	1.220
.200	.199	.472	3.000	2.759	1.483
.201	.200	.472	3.293	3.000	1.900
.300	.297	.455	3.500	3.170	2.078
.303	.300	.455	3.917	3.500	2.830
.400	.395	.448	4.000	3.566	2.934
.405	.400	.448	4.500	3.949	4.17
.500	.493	.448	4.569	4.000	4.42
.507	.500	.448	5.000	4.317	5.89
.600	.590	.453	5.257	4.500	7.10
.610	.600	.454	5.500	4.673	8.18
.700	.687	.460	5.978	5.000	11.00
.714	.700	.461	6.000	5.015	11.11
.800	.783	.470	6.500	5.347	14.53
.818	.800	.472	6.740	5.500	16.10
.900	.879	.484	7.000	5.666	18.28
0.922	.900	.487	7.500	5.973	22.13
1.000	.974	.500	7.546	6.000	22.49
1.028	1.000	.505	8.000	6.271	26.02
1.100	1.068	.520	8.400	6.500	29.28
1.134	1.100	.526	8.500	6.558	30.1
1.200	1.162	.539	9.000	6.833	34.2
1.240	1.200	.548	9.310	7.000	36.9
1.300	1.256	.563	9.500	7.102	38.5
1.348	1.300	.575	10.00	7.361	43.0
1.400	1.349	.587

Ref. Int. Crit. Tables III, 73 (1928); Robinson-Stokes, p.497

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.1000	0.0993	0.488	1.400	1.308	0.337
.1007	.1000	.487	1.500	1.394	.338
.200	.198	.429	1.507	1.400	.338
.203	.200	.428	1.600	1.480	.339
.300	.296	.397	1.624	1.500	.339
.304	.300	.396	1.700	1.564	.340
.400	.392	.378	1.742	1.600	.341
.408	.400	.377	1.800	1.648	.342
.500	.488	.365	1.863	1.700	.343
.513	.500	.364	1.900	1.731	.345
.600	.582	.356	1.984	1.800	.347
.619	.600	.355	2.000	1.813	.347
.700	.676	.349	2.108	1.900	.350
.725	.700	.348	2.236	2.000	.354
.800	.769	.344	2.500	2.209	.362
.833	.800	.343	2.885	2.500	.377
.900	.861	.340	3.000	2.587	.382
.942	.900	.339	3.500	2.937	.407
1.000	.952	.338	3.593	3.000	.413
1.053	1.000	.338	4.000	3.271	.438
1.100	1.043	.337	4.362	3.500	.463
1.164	1.100	.337	4.500	3.587	.472
1.200	1.132	.337	5.000	3.885	.510
1.277	1.200	.337	5.202	4.000	.526
1.300	1.220	.337	5.500	4.169	.551
1.391	1.300	.337	6.000	4.436	.596

Ref. Int. Crit. Tables III, 64 (1928) Robinson-Stokes,
p. 499; Harned-Owen, p. 742

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.005		0.789	2.500	2.311	.287
.010		.731	2.730	2.500	.288
.020		.667	3.000	2.723	.289
.050		.628	3.349	3.000	.295
.1000	0.0996	.518	3.500	3.120	.297
.1004	.1000	.518	4.000	3.500	.309
.200	.199	.465	4.500	3.870	.330
.201	.200	.464	4.683	4.000	.340
.300	.298	.435	5.000	4.225	.356
.302	.300	.434	5.398	4.500	.379
.400	.396	.413	5.500	4.570	.385
.404	.400	.412	6.000	4.900	.420
.500	.494	.396	6.154	5.000	(.433)
.506	.500	.395	6.500	5.225	(.461)
.600	.591	.382	6.944	5.500	(.502)
.609	.600	.381	7.000	5.535	(.507)
.700	.688	.371	7.500	5.835	(.559)
.713	.700	.369	7.781	6.000	(.591)
.800	.784	.359	8.000	6.129	(.616)
.817	.800	.358	8.500	6.410	
.900	.879	.350	8.666	6.500	
.922	.900	.348	9.000	6.680	
1.000	.974	.341	9.500	6.946	
1.028	1.000	.339	9.607	7.000	
1.100	1.068	.333	10.00	7.200	
1.135	1.100	.330	10.63	7.500	
1.200	1.161	.325	11.00	7.680	
1.242	1.200	.322	11.70	8.000	
1.300	1.254	.318	12.00	8.136	
1.351	1.300	.314	12.86	8.500	
1.400	1.345	.311	13.00	8.560	
1.460	1.400	.308	14.00	8.957	
1.500	1.437	.306	14.11	9.000	
1.570	1.500	.303	15.00	9.334	
1.600	1.527	.302	15.47	9.500	
1.681	1.600	.299	16.00	9.685	
1.700	1.617	.299	16.96	10.00	
1.793	1.700	.296	17.00	10.01	
1.800	1.706	.296	18.00	10.33	
1.900	1.795	.293	19.00	10.63	
1.906	1.800	.293	20.00	10.91	
2.000	1.883	.291	20.35	11.00	
2.019	1.900	.291	21.00	11.17	
2.137	2.000	.290	22.00	11.42

Ref. Int. Crit. Tables III, 65 (1928); Robinson-Stokes, p.500

m	c (18°)	γ (25°)	m	c (18°)	γ (25°)
0.1000	0.0995	0.530	1.484	1.400	0.646
.1005	.1000	.530	1.500	1.414	.650
.200	.198	.487	1.598	1.500	.677
.202	.200	.486	1.600	1.502	.677
.300	.296	.472	1.700	1.589	.710
.304	.300	.472	1.713	1.600	.714
.400	.394	.467	1.800	1.675	.741
.406	.400	.467	1.829	1.700	.750
.500	.490	.471	1.900	1.761	.777
.510	.500	.472	1.946	1.800	.793
.600	.586	.478	2.000	1.846	.814
.615	.600	.480	2.065	1.900	.843
.700	.681	.487	2.187	2.000	.898
.720	.700	.490	2.500	2.258	1.045
.800	.775	.499	2.809	2.500	1.237
.826	.800	.503	3.000	2.650	1.358
.900	.869	.516	3.470	3.000	1.740
.934	.900	.522	3.500	3.022	1.766
1.000	.962	.533	4.000	3.379	2.30
1.042	1.000	.541	4.179	3.500	2.54
1.100	1.054	.553	4.500	3.717	2.98
1.151	1.100	.563	4.941	4.000	3.76
1.200	1.145	.572	5.000	4.038	3.86
1.261	1.200	.588	5.500	4.343	5.07
1.300	1.235	.598	5.771	4.500	5.77
1.372	1.300	.616	6.000	4.633	6.38
1.400	1.325	.623

Ref. Lange, p. 1158; Robinson-Stokes, p. 1158

m	c (18°)
0.1000	0.0994
.1006	.1000
.200	.198
.202	.200
.300	.295
.305	.300
.400	.392
.409	.400
.500	.487
.514	.500
.600	.581
.620	.600
.700	.675
.727	.700
.800	.767
.836	.800
.900	.858
.946	.900
1.000	.949
1.058	1.000
1.100	1.038
1.171	1.100
1.200	1.126

m	c (18°)
1.285	1.200
1.300	1.213
1.400	1.299
1.401	1.300
1.500	1.384
1.519	1.400
1.600	1.468
1.638	1.500
1.700	1.551
1.760	1.600
1.800	1.633
1.883	1.700
1.900	1.714
2.000	1.794
2.008	1.800
2.100	1.873
2.135	1.900
2.200	1.951
2.264	2.000
2.300	2.028
2.396	2.100
2.400	2.103
2.500	2.178

No activity coefficient data available.

Ref. Int. Crit. Tables III, 70 (1928); Robinson-Stokes, p.500

m	c (25°)	γ (25°)	m	c (25°)	γ (25°)
0.100	0.0984	0.543	1.400	1.245	0.855
.102	.100	.542	1.470	1.300	.885
.200	.194	.512	1.500	1.324	.900
.206	.200	.512	1.597	1.400	.943
.300	.289	.510	1.600	1.402	.943
.312	.300	.511	1.700	1.479	1.013
.400	.382	.518	1.728	1.500	1.033
.419	.400	.521	1.800	1.554	1.083
.500	.475	.534	1.863	1.600	1.125
.528	.500	.540	1.900	1.627	1.150
.600	.566	.555	2.000	1.699	1.218
.638	.600	.564	2.001	1.700	1.218
.700	.656	.578	2.145	1.800	1.330
.750	.700	.594	2.293	1.900	1.445
.800	.745	.608	2.448	2.000	1.564
.864	.800	.629	2.500	2.033	1.602
.900	.831	.641	3.000	2.328	2.00
.980	.900	.672	3.327	2.500	2.24
1.000	.917	.679	3.500	2.591	2.37
1.099	1.000	.720	4.000	2.825	2.64
1.100	1.001	.720	4.415	3.000	2.81
1.200	1.083	.761	4.500	3.036	2.85
1.220	1.100	.772	5.000	3.225	3.01
1.300	1.165	.810	5.500	3.395	3.20
1.344	1.200	.830

Ref. Harned-Owen, p.740; Conway, p.83

m	γ (25°)
0.1	0.626
.2	.634
.3	.669
.4	.723
.5	.790
.6	.871
.7	.969
.8	1.087
.9	1.226
1.0	1.390
1.2	1.804
1.4	2.38
1.6	3.17
1.8	4.29
2.0	5.91
2.5	13.37
3.0	30.9
3.5	70.4
4.0	160.2
4.5	358
5.0	750
5.5	1510
No density data available	