Designation: D7265 – 12

Standard Specification for Hydrogen Thermophysical Property Tables[1]

This standard is issued under the fixed designation D7265; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 The thermophysical property tables for normal hydrogen are for use in the calculation of the pressure-volume-temperature (PVT), thermodynamic, and transport properties of hydrogen for process design and operations, particularly as they relate to hydrogen fuel cell applications. Tables are provided for gaseous hydrogen at temperatures between 50 K and 500 K at pressures to 50 MPa. These tables were developed by the National Institute of Standards and Technology from a Standard Reference Database product REFPROP, version 9.0.

2. Applicability

2.1 These tables apply directly only to pure gaseous hydrogen. However, it is expected that they may find substantial use in mathematical models and tables for the thermophysical properties of mixtures containing hydrogen.

3. Tables

3.1 The tabulated thermophysical properties are:

ρ, molar density ($mol \cdot L^{-1}$)

V, molar volume ($L^{-1} \cdot mol$)

H, molar enthalpy ($J \cdot mol^{-1}$)

S, molar entropy ($J \cdot K^{-1} \cdot mol^{-1}$)

C_v, constant volume molar heat capacity ($J \cdot K^{-1} \cdot mol^{-1}$)

C_p, constant pressure molar heat capacity ($J \cdot K^{-1} \cdot mol^{-1}$)

c, speed of sound ($m \cdot s^{-1}$)

η, viscosity (μPa·s)

λ, thermal conductivity ($mW \cdot m^{-1} \cdot K^{-1}$)

3.2 These tables were produced by equations from a computer package, "NIST Standard Reference Database 23; Reference Fluid Thermodynamic and Transport Properties Database (REFPROP): Version 9.0." A wide selection of units (SI units, engineering units, chemical units) is available with this program.

4. Additional Information

4.1 A comprehensive equation of state for normal hydrogen is not available at this time. The properties in the table were calculated from individual equations for normal hydrogen.

5. Keywords

5.1 hydrogen fuel cell; hydrogen gas tables; thermodynamic properties of hydrogen

[1] This specification is under the jurisdiction of ASTM Committee D03 on Gaseous Fuels and is the direct responsibility of Subcommittee D03.08 on Thermophysical Properties.

Current edition approved Nov. 1, 2012. Published December 2012. Originally approved in 2006. Last previous edition approved in 2006 as D7265 - 06. DOI: 10.1520/D7265-12.

TABLE 1 Hydrogen Thermophysical Property Tables

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
				0.1 MPa					
50	0.24247	4.1243	1549.8	64.230	12.543	21.131	584.8	38.40	2.4717
55	0.21997	4.5461	1655.4	66.243	12.579	21.113	613.4	41.52	2.6729
60	0.20134	4.9668	1761.0	68.081	12.643	21.137	640.4	44.60	2.8655
65	0.18565	5.3866	1866.8	69.775	12.740	21.204	665.8	47.68	3.0502
70	0.17224	5.8057	1973.1	71.350	12.871	21.312	689.7	50.78	3.2281
75	0.16066	6.2244	2080.0	72.825	13.037	21.460	712.3	53.61	3.3999
80	0.15054	6.6426	2187.7	74.216	13.235	21.643	733.6	56.47	3.5663
85	0.14163	7.0605	2296.5	75.534	13.462	21.858	753.8	59.35	3.7280
90	0.13372	7.4781	2406.4	76.791	13.712	22.098	773.0	62.17	3.8855
95	0.12665	7.8955	2517.5	77.992	13.981	22.359	791.3	65.26	4.0392
100	0.12030	8.3127	2630.0	79.146	14.264	22.635	808.9	68.33	4.1896
105	0.11455	8.7298	2743.9	80.257	14.556	22.921	825.8	71.65	4.3368
110	0.10933	9.1467	2859.2	81.330	14.852	23.212	842.1	74.97	4.4813
115	0.10456	9.5635	2976.0	82.369	15.150	23.506	858.0	78.22	4.6232
120	0.10020	9.9802	3094.2	83.375	15.446	23.798	873.5	81.48	4.7629
125	0.09618	10.3970	3214.0	84.352	15.738	24.086	888.6	84.78	4.9004
130	0.09248	10.8130	3335.1	85.303	16.023	24.368	903.4	88.09	5.0359
135	0.08905	11.2300	3457.6	86.228	16.300	24.643	917.9	91.36	5.1696
140	0.08587	11.6460	3581.5	87.129	16.568	24.908	932.2	94.62	5.3015
145	0.08290	12.0630	3706.7	88.007	16.825	25.164	946.3	97.79	5.4318
150	0.08014	12.4790	3833.1	88.864	17.073	25.410	960.1	100.96	5.5606
155	0.07755	12.8950	3960.8	89.701	17.309	25.645	973.8	104.24	5.6880
160	0.07512	13.3110	4089.6	90.519	17.535	25.869	987.3	107.51	5.8140
165	0.07285	13.7280	4219.4	91.318	17.750	26.082	1000.6	110.74	5.9387
170	0.07070	14.1440	4350.4	92.100	17.954	26.285	1013.8	113.98	6.0622
175	0.06868	14.5600	4482.3	92.865	18.147	26.477	1026.9	117.11	6.1845
180	0.06677	14.9760	4615.1	93.613	18.330	26.659	1039.8	120.25	6.3056
185	0.06497	15.3920	4748.8	94.346	18.503	26.831	1052.6	123.34	6.4257
190	0.06326	15.8080	4883.4	95.064	18.666	26.994	1065.3	126.44	6.5447
195	0.06164	16.2240	5018.8	95.767	18.821	27.147	1077.8	129.44	6.6627
200	0.06010	16.6400	5154.9	96.456	18.966	27.292	1090.2	132.44	6.7798
205	0.05863	17.0560	5291.7	97.132	19.103	27.428	1102.6	135.39	6.8958
210	0.05723	17.4720	5429.1	97.794	19.231	27.556	1114.8	138.34	7.0110
215	0.05590	17.8880	5567.2	98.444	19.352	27.676	1126.9	141.20	7.1253
220	0.05463	18.3040	5705.9	99.082	19.465	27.789	1138.9	144.07	7.2387
225	0.05342	18.7200	5845.1	99.707	19.572	27.895	1150.8	146.88	7.3513
230	0.05226	19.1360	5984.8	100.320	19.672	27.994	1162.6	149.70	7.4631
235	0.05115	19.5520	6125.0	100.920	19.765	28.087	1174.4	152.46	7.5741
240	0.05008	19.9680	6265.7	101.520	19.852	28.174	1186.0	155.24	7.6843
245	0.04906	20.3840	6406.7	102.100	19.934	28.255	1197.6	157.91	7.7938
250	0.04808	20.8000	6548.2	102.670	20.010	28.331	1209.0	160.59	7.9025
255	0.04714	21.2150	6690.0	103.230	20.081	28.402	1220.4	163.21	8.0105
260	0.04623	21.6310	6832.2	103.780	20.148	28.468	1231.7	165.84	8.1178
265	0.04536	22.0470	6974.7	104.330	20.209	28.529	1242.9	168.43	8.2245
270	0.04452	22.4630	7117.5	104.860	20.267	28.587	1254.1	171.01	8.3305
275	0.04371	22.8790	7260.6	105.390	20.320	28.640	1265.1	173.50	8.4358
280	0.04293	23.2950	7403.9	105.900	20.370	28.689	1276.1	175.99	8.5405
285	0.04218	23.7110	7547.5	106.410	20.416	28.735	1287.0	178.48	8.6445
290	0.04145	24.1260	7691.2	106.910	20.459	28.777	1297.9	180.97	8.7480
295	0.04075	24.5420	7835.2	107.400	20.498	28.817	1308.6	183.37	8.8508
300	0.04007	24.9580	7979.4	107.890	20.534	28.853	1319.3	185.76	8.9531
305	0.03941	25.3740	8123.8	108.360	20.568	28.886	1329.9	188.16	9.0548
310	0.03878	25.7900	8268.3	108.830	20.599	28.917	1340.5	190.56	9.1559
315	0.03816	26.2050	8412.9	109.300	20.628	28.946	1351.0	192.86	9.2565
320	0.03756	26.6210	8557.7	109.750	20.654	28.972	1361.4	195.17	9.3566
325	0.03699	27.0370	8702.6	110.200	20.679	28.996	1371.8	197.72	9.4561
330	0.03643	27.4530	8847.7	110.650	20.701	29.018	1382.0	200.28	9.5551
335	0.03588	27.8690	8992.8	111.080	20.722	29.039	1392.3	202.79	9.6536
340	0.03536	28.2840	9138.1	111.510	20.740	29.058	1402.4	205.30	9.7515
345	0.03484	28.7000	9283.4	111.940	20.758	29.075	1412.5	207.81	9.8490
350	0.03435	29.1160	9428.8	112.360	20.773	29.090	1422.6	210.32	9.9461
355	0.03386	29.5320	9574.3	112.770	20.788	29.105	1432.5	212.79	10.0430
360	0.03339	29.9480	9719.9	113.180	20.801	29.118	1442.4	215.26	10.1390
365	0.03293	30.3630	9865.5	113.580	20.813	29.130	1452.3	217.58	10.2340
370	0.03249	30.7790	10011.0	113.970	20.824	29.141	1462.1	219.90	10.3300
375	0.03206	31.1950	10157.0	114.360	20.834	29.151	1471.8	222.32	10.4240
380	0.03164	31.6110	10303.0	114.750	20.843	29.160	1481.5	224.74	10.5190
385	0.03122	32.0260	10448.0	115.130	20.852	29.168	1491.1	227.07	10.6130
390	0.03082	32.4420	10594.0	115.510	20.859	29.175	1500.7	229.40	10.7060
395	0.03043	32.8580	10740.0	115.880	20.866	29.182	1510.2	231.72	10.7990
400	0.03005	33.2740	10886.0	116.250	20.873	29.189	1519.6	234.06	10.8920
405	0.02968	33.6900	11032.0	116.610	20.878	29.194	1529.0	236.14	10.9840
410	0.02932	34.1050	11178.0	116.970	20.884	29.200	1538.4	238.22	11.0760

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
415	0.02897	34.5210	11324.0	117.320	20.889	29.205	1547.7	240.56	11.1680
420	0.02862	34.9370	11470.0	117.670	20.893	29.209	1556.9	242.89	11.2590
425	0.02829	35.3530	11616.0	118.020	20.897	29.213	1566.1	245.23	11.3500
430	0.02796	35.7680	11762.0	118.360	20.901	29.217	1575.2	247.57	11.4400
435	0.02764	36.1840	11908.0	118.700	20.905	29.221	1584.3	249.91	11.5300
440	0.02732	36.6000	12054.0	119.030	20.908	29.224	1593.4	252.26	11.6200
445	0.02702	37.0160	12201.0	119.360	20.912	29.227	1602.3	254.60	11.7090
450	0.02672	37.4310	12347.0	119.690	20.915	29.230	1611.3	256.95	11.7980
455	0.02642	37.8470	12493.0	120.010	20.917	29.233	1620.2	259.30	11.8870
460	0.02614	38.2630	12639.0	120.330	20.920	29.236	1629.0	261.65	11.9750
465	0.02585	38.6790	12785.0	120.650	20.923	29.238	1637.8	264.00	12.0630
470	0.02558	39.0940	12931.0	120.960	20.926	29.241	1646.5	266.35	12.1510
475	0.02531	39.5100	13078.0	121.270	20.928	29.244	1655.2	268.71	12.2390
480	0.02505	39.9260	13224.0	121.580	20.931	29.246	1663.9	271.06	12.3260
485	0.02479	40.3420	13370.0	121.880	20.933	29.249	1672.5	273.42	12.4130
490	0.02454	40.7570	13516.0	122.180	20.936	29.251	1681.1	275.78	12.4990
495	0.02429	41.1730	13663.0	122.480	20.939	29.254	1689.6	278.14	12.5860
500	0.02405	41.5890	13809.0	122.770	20.941	29.256	1698.0	280.50	12.6720
				0.2 MPa					
50	0.48886	2.0456	1539.6	58.330	12.577	21.451	583.6	38.74	2.4854
55	0.44256	2.2596	1646.6	60.370	12.606	21.366	612.8	41.83	2.6855
60	0.40446	2.4724	1753.4	62.228	12.665	21.343	640.1	44.89	2.8770
65	0.37252	2.6844	1860.2	63.937	12.758	21.374	665.8	47.94	3.0609
70	0.34534	2.8957	1967.2	65.524	12.886	21.456	689.9	51.02	3.2381
75	0.32191	3.1065	2074.8	67.008	13.050	21.582	712.6	53.85	3.4093
80	0.30149	3.3168	2183.1	68.406	13.246	21.749	734.1	56.72	3.5752
85	0.28354	3.5269	2292.3	69.731	13.472	21.950	754.4	59.62	3.7364
90	0.26762	3.7366	2402.7	70.992	13.721	22.179	773.6	62.43	3.8935
95	0.25341	3.9462	2514.2	72.197	13.989	22.430	792.0	65.50	4.0468
100	0.24064	4.1555	2627.0	73.355	14.271	22.698	809.6	68.57	4.1968
105	0.22911	4.3647	2741.2	74.469	14.562	22.978	826.6	71.88	4.3437
110	0.21864	4.5738	2856.8	75.544	14.858	23.264	843.0	75.19	4.4878
115	0.20909	4.7827	2973.8	76.585	15.156	23.552	858.9	78.43	4.6295
120	0.20034	4.9916	3092.3	77.593	15.451	23.840	874.4	81.67	4.7689
125	0.19230	5.2003	3212.2	78.572	15.742	24.125	889.5	84.97	4.9061
130	0.18488	5.4090	3333.5	79.524	16.027	24.404	904.3	88.28	5.0414
135	0.17801	5.6176	3456.2	80.450	16.304	24.675	918.9	91.53	5.1749
140	0.17164	5.8261	3580.3	81.352	16.572	24.938	933.2	94.79	5.3066
145	0.16571	6.0346	3705.6	82.232	16.829	25.192	947.2	97.96	5.4368
150	0.16018	6.2431	3832.2	83.090	17.076	25.436	961.1	101.12	5.5654
155	0.15500	6.4515	3959.9	83.928	17.313	25.669	974.8	104.39	5.6926
160	0.15015	6.6598	4088.8	84.746	17.538	25.891	988.3	107.67	5.8185
165	0.14560	6.8682	4218.8	85.546	17.753	26.103	1001.6	110.89	5.9431
170	0.14131	7.0764	4349.9	86.329	17.957	26.304	1014.8	114.12	6.0664
175	0.13727	7.2847	4481.9	87.094	18.150	26.496	1027.8	117.25	6.1886
180	0.13346	7.4929	4614.8	87.843	18.333	26.676	1040.7	120.39	6.3096
185	0.12985	7.7012	4748.6	88.576	18.506	26.848	1053.5	123.48	6.4296
190	0.12643	7.9093	4883.3	89.294	18.669	27.009	1066.2	126.57	6.5485
195	0.12319	8.1175	5018.7	89.998	18.823	27.162	1078.7	129.56	6.6664
200	0.12011	8.3257	5154.9	90.687	18.968	27.305	1091.2	132.56	6.7833
205	0.11718	8.5338	5291.7	91.363	19.105	27.441	1103.5	135.51	6.8993
210	0.11439	8.7419	5429.3	92.026	19.234	27.568	1115.7	138.47	7.0144
215	0.11173	8.9500	5567.4	92.676	19.354	27.688	1127.8	141.32	7.1286
220	0.10919	9.1581	5706.1	93.314	19.468	27.800	1139.8	144.18	7.2420
225	0.10677	9.3662	5845.4	93.940	19.574	27.905	1151.7	146.99	7.3545
230	0.10445	9.5743	5985.2	94.554	19.674	28.004	1163.6	149.81	7.4662
235	0.10223	9.7823	6125.4	95.158	19.767	28.097	1175.3	152.57	7.5771
240	0.10010	9.9904	6266.1	95.750	19.854	28.183	1186.9	155.34	7.6873
245	0.09806	10.1980	6407.2	96.332	19.936	28.264	1198.5	158.02	7.7967
250	0.09610	10.4060	6548.7	96.904	20.012	28.339	1209.9	160.69	7.9054
255	0.09421	10.6140	6690.6	97.466	20.083	28.410	1221.3	163.32	8.0133
260	0.09240	10.8220	6832.8	98.018	20.150	28.476	1232.6	165.95	8.1206
265	0.09066	11.0300	6975.4	98.561	20.211	28.537	1243.8	168.53	8.2272
270	0.08898	11.2380	7118.2	99.095	20.269	28.594	1254.9	171.11	8.3331
275	0.08736	11.4460	7261.3	99.620	20.322	28.646	1266.0	173.60	8.4384
280	0.08580	11.6540	7404.7	100.140	20.372	28.696	1277.0	176.08	8.5430
285	0.08430	11.8620	7548.3	100.650	20.418	28.741	1287.9	178.57	8.6470
290	0.08285	12.0700	7692.1	101.150	20.460	28.783	1298.7	181.06	8.7505
295	0.08144	12.2780	7836.1	101.640	20.500	28.822	1309.5	183.46	8.8533
300	0.08009	12.4860	7980.3	102.120	20.536	28.858	1320.2	185.85	8.9555
305	0.07878	12.6940	8124.7	102.600	20.570	28.892	1330.8	188.25	9.0571
310	0.07751	12.9020	8269.2	103.070	20.601	28.922	1341.3	190.65	9.1582
315	0.07628	13.1100	8413.9	103.530	20.630	28.951	1351.8	192.95	9.2588
320	0.07509	13.3180	8558.7	103.990	20.656	28.977	1362.2	195.26	9.3588

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
325	0.07393	13.5260	8703.6	104.440	20.680	29.001	1372.6	197.81	9.4583
330	0.07281	13.7340	8848.7	104.880	20.703	29.023	1382.9	200.36	9.5572
335	0.07173	13.9420	8993.9	105.320	20.723	29.043	1393.1	202.87	9.6557
340	0.07067	14.1500	9139.1	105.750	20.742	29.062	1403.2	205.38	9.7537
345	0.06965	14.3580	9284.5	106.170	20.759	29.079	1413.3	207.89	9.8511
350	0.06866	14.5660	9429.9	106.590	20.775	29.094	1423.4	210.40	9.9481
355	0.06769	14.7740	9575.4	107.000	20.789	29.108	1433.3	212.87	10.0450
360	0.06675	14.9820	9721.0	107.410	20.802	29.121	1443.2	215.34	10.1410
365	0.06584	15.1890	9866.6	107.810	20.814	29.133	1453.1	217.65	10.2360
370	0.06495	15.3970	10012.0	108.210	20.825	29.144	1462.9	219.97	10.3310
375	0.06408	15.6050	10158.0	108.600	20.835	29.154	1472.6	222.40	10.4260
380	0.06324	15.8130	10304.0	108.990	20.845	29.163	1482.3	224.82	10.5210
385	0.06242	16.0210	10450.0	109.370	20.853	29.171	1491.9	227.14	10.6140
390	0.06162	16.2290	10596.0	109.740	20.861	29.178	1501.4	229.47	10.7080
395	0.06084	16.4370	10741.0	110.120	20.868	29.185	1510.9	231.80	10.8010
400	0.06008	16.6450	10887.0	110.480	20.874	29.191	1520.4	234.13	10.8940
405	0.05934	16.8530	11033.0	110.850	20.880	29.197	1529.8	236.21	10.9860
410	0.05862	17.0610	11179.0	111.200	20.885	29.202	1539.1	238.29	11.0780
415	0.05791	17.2680	11325.0	111.560	20.890	29.207	1548.4	240.63	11.1690
420	0.05722	17.4760	11471.0	111.910	20.894	29.212	1557.6	242.97	11.2600
425	0.05655	17.6840	11618.0	112.250	20.899	29.216	1566.8	245.30	11.3510
430	0.05589	17.8920	11764.0	112.600	20.902	29.219	1576.0	247.64	11.4420
435	0.05525	18.1000	11910.0	112.930	20.906	29.223	1585.0	249.98	11.5320
440	0.05462	18.3080	12056.0	113.270	20.909	29.226	1594.1	252.33	11.6210
445	0.05401	18.5160	12202.0	113.600	20.913	29.229	1603.1	254.67	11.7110
450	0.05341	18.7240	12348.0	113.920	20.916	29.232	1612.0	257.02	11.8000
455	0.05282	18.9320	12494.0	114.250	20.919	29.235	1620.9	259.37	11.8890
460	0.05225	19.1400	12640.0	114.570	20.921	29.238	1629.7	261.71	11.9770
465	0.05169	19.3470	12787.0	114.880	20.924	29.240	1638.5	264.07	12.0650
470	0.05114	19.5550	12933.0	115.200	20.927	29.243	1647.2	266.42	12.1530
475	0.05060	19.7630	13079.0	115.510	20.929	29.245	1655.9	268.77	12.2400
480	0.05007	19.9710	13225.0	115.810	20.932	29.248	1664.6	271.13	12.3270
485	0.04956	20.1790	13372.0	116.110	20.934	29.250	1673.2	273.49	12.4140
490	0.04905	20.3870	13518.0	116.410	20.937	29.253	1681.7	275.84	12.5010
495	0.04856	20.5950	13664.0	116.710	20.940	29.255	1690.2	278.20	12.5870
500	0.04807	20.8030	13810.0	117.010	20.942	29.258	1698.7	280.57	12.6730
					0.5 MPa				
50	1.25300	0.7981	1508.6	50.290	12.677	22.483	580.4	39.86	2.5283
55	1.12660	0.8876	1620.1	52.417	12.685	22.169	611.0	42.82	2.7243
60	1.02480	0.9758	1730.5	54.337	12.729	21.985	639.5	45.78	2.9126
65	0.94060	1.0632	1840.1	56.093	12.811	21.901	666.0	48.75	3.0938
70	0.86974	1.1498	1949.6	57.715	12.931	21.895	690.7	51.76	3.2687
75	0.80916	1.2358	2059.2	59.228	13.088	21.955	713.9	54.59	3.4379
80	0.75671	1.3215	2169.2	60.648	13.279	22.069	735.7	57.48	3.6021
85	0.71082	1.4068	2280.0	61.990	13.500	22.227	756.2	60.43	3.7618
90	0.67030	1.4919	2391.6	63.266	13.746	22.422	775.7	63.21	3.9175
95	0.63424	1.5767	2504.2	64.484	14.012	22.645	794.3	66.23	4.0696
100	0.60193	1.6613	2618.1	65.652	14.292	22.890	812.0	69.26	4.2185
105	0.57281	1.7458	2733.2	66.775	14.581	23.149	829.1	72.53	4.3643
110	0.54641	1.8301	2849.6	67.858	14.876	23.418	845.6	75.81	4.5075
115	0.52237	1.9143	2967.3	68.905	15.172	23.692	861.6	79.02	4.6483
120	0.50039	1.9985	3086.5	69.919	15.466	23.967	877.1	82.25	4.7869
125	0.48020	2.0825	3207.0	70.903	15.757	24.241	892.3	85.52	4.9234
130	0.46159	2.1664	3328.9	71.859	16.040	24.510	907.1	88.81	5.0580
135	0.44438	2.2503	3452.1	72.789	16.317	24.773	921.7	92.04	5.1909
140	0.42842	2.3341	3576.6	73.695	16.584	25.029	936.0	95.29	5.3220
145	0.41358	2.4179	3702.4	74.577	16.841	25.276	950.1	98.44	5.4517
150	0.39974	2.5016	3829.4	75.438	17.087	25.513	963.9	101.59	5.5798
155	0.38680	2.5853	3957.5	76.279	17.323	25.741	977.6	104.84	5.7065
160	0.37468	2.6689	4086.7	77.099	17.548	25.958	991.1	108.10	5.8320
165	0.36330	2.7525	4217.1	77.901	17.763	26.166	1004.5	111.32	5.9561
170	0.35260	2.8361	4348.4	78.685	17.966	26.363	1017.7	114.53	6.0791
175	0.34251	2.9197	4480.7	79.452	18.159	26.551	1030.7	117.66	6.2009
180	0.33298	3.0032	4613.9	80.203	18.342	26.728	1043.6	120.78	6.3216
185	0.32397	3.0867	4747.9	80.937	18.514	26.896	1056.4	123.86	6.4412
190	0.31544	3.1701	4882.8	81.657	18.677	27.055	1069.0	126.94	6.5598
195	0.30735	3.2536	5018.5	82.362	18.831	27.205	1081.6	129.93	6.6774
200	0.29967	3.3370	5154.9	83.052	18.976	27.346	1094.0	132.92	6.7941
205	0.29236	3.4204	5291.9	83.729	19.112	27.480	1106.3	135.86	6.9098
210	0.28540	3.5038	5429.7	84.393	19.241	27.605	1118.5	138.81	7.0247
215	0.27877	3.5872	5568.0	85.044	19.361	27.723	1130.6	141.66	7.1387
220	0.27244	3.6706	5706.9	85.682	19.475	27.833	1142.6	144.51	7.2518
225	0.26639	3.7539	5846.3	86.309	19.581	27.937	1154.5	147.32	7.3641
230	0.26060	3.8373	5986.2	86.924	19.680	28.034	1166.3	150.13	7.4756

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
235	0.25506	3.9206	6126.6	87.528	19.773	28.125	1178.0	152.89	7.5863
240	0.24975	4.0040	6267.5	88.121	19.861	28.211	1189.6	155.65	7.6963
245	0.24466	4.0873	6408.7	88.704	19.942	28.290	1201.2	158.32	7.8055
250	0.23977	4.1706	6550.4	89.276	20.018	28.364	1212.6	160.99	7.9140
255	0.23508	4.2539	6692.4	89.838	20.089	28.434	1224.0	163.61	8.0218
260	0.23056	4.3372	6834.7	90.391	20.155	28.499	1235.3	166.23	8.1289
265	0.22622	4.4205	6977.3	90.934	20.217	28.559	1246.5	168.81	8.2353
270	0.22204	4.5037	7120.3	91.469	20.274	28.615	1257.6	171.39	8.3411
275	0.21801	4.5870	7263.5	91.994	20.328	28.667	1268.6	173.87	8.4462
280	0.21412	4.6703	7406.9	92.511	20.377	28.715	1279.6	176.35	8.5507
285	0.21037	4.7535	7550.6	93.020	20.423	28.760	1290.5	178.84	8.6546
290	0.20675	4.8368	7694.5	93.520	20.465	28.801	1301.3	181.33	8.7579
295	0.20325	4.9200	7838.6	94.013	20.505	28.840	1312.0	183.72	8.8606
300	0.19987	5.0033	7982.9	94.498	20.541	28.875	1322.7	186.11	8.9627
305	0.19660	5.0865	8127.4	94.976	20.575	28.908	1333.3	188.50	9.0642
310	0.19343	5.1697	8272.0	95.446	20.606	28.938	1343.8	190.90	9.1652
315	0.19037	5.2530	8416.7	95.909	20.634	28.966	1354.3	193.20	9.2656
320	0.18740	5.3362	8561.6	96.366	20.661	28.991	1364.7	195.50	9.3655
325	0.18452	5.4194	8706.7	96.815	20.685	29.015	1375.0	198.05	9.4649
330	0.18173	5.5026	8851.8	97.258	20.707	29.036	1385.3	200.60	9.5638
335	0.17902	5.5859	8997.0	97.695	20.727	29.056	1395.5	203.10	9.6621
340	0.17640	5.6691	9142.3	98.126	20.746	29.074	1405.6	205.61	9.7600
345	0.17384	5.7523	9287.8	98.550	20.763	29.091	1415.7	208.12	9.8574
350	0.17137	5.8355	9433.2	98.969	20.779	29.106	1425.7	210.63	9.9543
355	0.16896	5.9187	9578.8	99.382	20.793	29.120	1435.7	213.09	10.0510
360	0.16661	6.0019	9724.4	99.789	20.807	29.132	1445.6	215.56	10.1470
365	0.16434	6.0851	9870.1	100.190	20.819	29.144	1455.4	217.87	10.2420
370	0.16212	6.1683	10016.0	100.590	20.829	29.154	1465.2	220.19	10.3370
375	0.15996	6.2515	10162.0	100.980	20.839	29.164	1474.9	222.61	10.4320
380	0.15786	6.3347	10308.0	101.370	20.848	29.172	1484.6	225.03	10.5260
385	0.15581	6.4179	10453.0	101.750	20.857	29.180	1494.2	227.35	10.6200
390	0.15382	6.5011	10599.0	102.120	20.864	29.187	1503.7	229.68	10.7130
395	0.15188	6.5842	10745.0	102.500	20.871	29.194	1513.2	232.00	10.8060
400	0.14998	6.6674	10891.0	102.860	20.878	29.200	1522.6	234.33	10.8990
405	0.14813	6.7506	11037.0	103.230	20.883	29.205	1532.0	236.41	10.9910
410	0.14633	6.8338	11183.0	103.580	20.889	29.210	1541.4	238.49	11.0830
415	0.14457	6.9170	11329.0	103.940	20.893	29.215	1550.6	240.83	11.1740
420	0.14285	7.0002	11475.0	104.290	20.898	29.219	1559.9	243.16	11.2660
425	0.14118	7.0833	11622.0	104.630	20.902	29.223	1569.0	245.50	11.3560
430	0.13954	7.1665	11768.0	104.980	20.906	29.226	1578.1	247.84	11.4470
435	0.13794	7.2497	11914.0	105.310	20.909	29.230	1587.2	250.18	11.5370
440	0.13637	7.3329	12060.0	105.650	20.913	29.233	1596.2	252.52	11.6260
445	0.13484	7.4160	12206.0	105.980	20.916	29.236	1605.2	254.86	11.7160
450	0.13335	7.4992	12352.0	106.300	20.919	29.238	1614.1	257.20	11.8050
455	0.13188	7.5824	12499.0	106.630	20.922	29.241	1623.0	259.55	11.8930
460	0.13045	7.6655	12645.0	106.950	20.925	29.244	1631.8	261.90	11.9820
465	0.12905	7.7487	12791.0	107.260	20.927	29.246	1640.6	264.25	12.0700
470	0.12768	7.8319	12937.0	107.580	20.930	29.248	1649.3	266.60	12.1570
475	0.12634	7.9150	13083.0	107.890	20.932	29.251	1658.0	268.95	12.2450
480	0.12503	7.9982	13230.0	108.190	20.935	29.253	1666.6	271.31	12.3320
485	0.12374	8.0814	13376.0	108.500	20.938	29.256	1675.2	273.66	12.4190
490	0.12248	8.1645	13522.0	108.800	20.940	29.258	1683.8	276.02	12.5050
495	0.12125	8.2477	13669.0	109.090	20.943	29.260	1692.3	278.38	12.5910
500	0.12004	8.3308	13815.0	109.390	20.945	29.263	1700.7	280.74	12.6770
					1.0 MPa				
50	2.61740	0.3821	1454.7	43.785	12.837	24.482	576.1	42.10	2.6078
55	2.32380	0.4303	1574.9	46.076	12.810	23.649	609.2	44.74	2.7944
60	2.09580	0.4772	1691.7	48.110	12.830	23.135	639.3	47.46	2.9756
65	1.91220	0.5230	1806.6	49.949	12.895	22.823	667.0	50.26	3.1512
70	1.76050	0.5680	1920.2	51.633	13.002	22.654	692.6	53.12	3.3215
75	1.63250	0.6126	2033.3	53.193	13.149	22.591	716.5	55.91	3.4869
80	1.52290	0.6566	2146.3	54.652	13.332	22.611	738.8	58.79	3.6479
85	1.42780	0.7004	2259.5	56.025	13.547	22.695	759.8	61.80	3.8048
90	1.34440	0.7438	2373.3	57.326	13.788	22.830	779.6	64.51	3.9581
95	1.27060	0.7871	2487.9	58.564	14.049	23.005	798.4	67.46	4.1080
100	1.20470	0.8301	2603.4	59.750	14.326	23.208	816.3	70.41	4.2550
105	1.14550	0.8730	2720.0	60.887	14.612	23.434	833.6	73.62	4.3990
110	1.09200	0.9157	2837.8	61.983	14.905	23.674	850.2	76.84	4.5405
115	1.04350	0.9584	2956.8	63.041	15.199	23.923	866.2	80.01	4.6798
120	0.99912	1.0009	3077.0	64.064	15.491	24.178	881.8	83.19	4.8170
125	0.95847	1.0433	3198.5	65.056	15.780	24.433	897.1	86.43	4.9523
130	0.92107	1.0857	3321.3	66.020	16.063	24.686	911.9	89.68	5.0857
135	0.88653	1.1280	3445.4	66.956	16.337	24.935	926.5	92.89	5.2175
140	0.85453	1.1702	3570.7	67.867	16.603	25.178	940.8	96.10	5.3477

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
145	0.82480	1.2124	3697.1	68.755	16.860	25.413	954.9	99.22	5.4764
150	0.79709	1.2546	3824.8	69.620	17.105	25.641	968.8	102.35	5.6037
155	0.77121	1.2967	3953.5	70.465	17.341	25.860	982.5	105.58	5.7297
160	0.74699	1.3387	4083.4	71.289	17.565	26.069	996.0	108.82	5.8544
165	0.72425	1.3807	4214.2	72.094	17.778	26.269	1009.3	112.01	5.9778
170	0.70287	1.4227	4346.0	72.881	17.981	26.460	1022.5	115.21	6.1002
175	0.68273	1.4647	4478.8	73.651	18.174	26.642	1035.5	118.31	6.2214
180	0.66373	1.5066	4612.4	74.404	18.356	26.814	1048.4	121.42	6.3415
185	0.64576	1.5486	4746.9	75.141	18.528	26.977	1061.2	124.49	6.4606
190	0.62875	1.5904	4882.2	75.862	18.691	27.131	1073.8	127.55	6.5787
195	0.61262	1.6323	5018.2	76.569	18.844	27.277	1086.3	130.53	6.6958
200	0.59731	1.6742	5155.0	77.261	18.989	27.414	1098.7	133.50	6.8120
205	0.58274	1.7160	5292.4	77.940	19.125	27.544	1111.0	136.43	6.9273
210	0.56888	1.7578	5430.4	78.605	19.253	27.666	1123.2	139.37	7.0417
215	0.55566	1.7997	5569.0	79.257	19.373	27.780	1135.3	142.20	7.1553
220	0.54305	1.8414	5708.2	79.897	19.486	27.888	1147.2	145.04	7.2680
225	0.53100	1.8832	5847.9	80.525	19.592	27.989	1159.1	147.84	7.3800
230	0.51948	1.9250	5988.1	81.141	19.691	28.084	1170.9	150.64	7.4911
235	0.50845	1.9668	6128.7	81.746	19.784	28.173	1182.6	153.39	7.6015
240	0.49788	2.0085	6269.8	82.340	19.871	28.256	1194.2	156.14	7.7112
245	0.48774	2.0503	6411.2	82.924	19.952	28.333	1205.7	158.80	7.8201
250	0.47801	2.0920	6553.1	83.497	20.028	28.406	1217.1	161.46	7.9283
255	0.46867	2.1337	6695.3	84.060	20.099	28.473	1228.4	164.07	8.0358
260	0.45968	2.1754	6837.8	84.614	20.165	28.536	1239.7	166.69	8.1426
265	0.45103	2.2171	6980.7	85.158	20.226	28.595	1250.9	169.26	8.2488
270	0.44270	2.2588	7123.8	85.693	20.283	28.649	1262.0	171.83	8.3543
275	0.43468	2.3005	7267.1	86.219	20.337	28.700	1273.0	174.31	8.4592
280	0.42694	2.3422	7410.8	86.736	20.386	28.747	1283.9	176.78	8.5635
285	0.41948	2.3839	7554.6	87.246	20.432	28.790	1294.8	179.26	8.6671
290	0.41227	2.4256	7698.7	87.747	20.474	28.831	1305.6	181.74	8.7702
295	0.40531	2.4673	7842.9	88.240	20.513	28.868	1316.3	184.13	8.8727
300	0.39857	2.5089	7987.3	88.725	20.549	28.902	1326.9	186.51	8.9746
305	0.39206	2.5506	8131.9	89.203	20.583	28.934	1337.5	188.90	9.0759
310	0.38576	2.5923	8276.7	89.674	20.614	28.963	1348.0	191.29	9.1767
315	0.37966	2.6339	8421.5	90.138	20.642	28.990	1358.5	193.59	9.2770
320	0.37375	2.6756	8566.6	90.594	20.668	29.015	1368.8	195.88	9.3767
325	0.36802	2.7172	8711.7	91.044	20.692	29.037	1379.1	198.43	9.4759
330	0.36247	2.7589	8856.9	91.488	20.715	29.058	1389.4	200.97	9.5746
335	0.35708	2.8005	9002.3	91.925	20.735	29.077	1399.6	203.47	9.6728
340	0.35184	2.8422	9147.7	92.356	20.754	29.094	1409.7	205.97	9.7705
345	0.34676	2.8838	9293.2	92.781	20.771	29.110	1419.7	208.48	9.8677
350	0.34183	2.9254	9438.8	93.200	20.786	29.125	1429.7	210.98	9.9645
355	0.33703	2.9671	9584.5	93.613	20.800	29.138	1439.7	213.44	10.0610
360	0.33237	3.0087	9730.2	94.021	20.813	29.150	1449.5	215.90	10.1570
365	0.32783	3.0503	9876.0	94.423	20.825	29.161	1459.3	218.22	10.2520
370	0.32342	3.0919	10022.0	94.820	20.836	29.171	1469.1	220.53	10.3470
375	0.31913	3.1336	10168.0	95.211	20.846	29.180	1478.8	222.94	10.4410
380	0.31494	3.1752	10314.0	95.598	20.855	29.188	1488.4	225.36	10.5360
385	0.31087	3.2168	10460.0	95.979	20.863	29.195	1498.0	227.68	10.6290
390	0.30690	3.2584	10606.0	96.356	20.871	29.202	1507.5	230.00	10.7230
395	0.30303	3.3000	10752.0	96.728	20.878	29.208	1517.0	232.33	10.8150
400	0.29925	3.3416	10898.0	97.096	20.884	29.214	1526.4	234.65	10.9080
405	0.29557	3.3833	11044.0	97.459	20.889	29.219	1535.8	236.73	11.0000
410	0.29198	3.4249	11190.0	97.817	20.895	29.223	1545.1	238.81	11.0920
415	0.28848	3.4665	11336.0	98.171	20.899	29.227	1554.3	241.14	11.1830
420	0.28506	3.5081	11482.0	98.521	20.904	29.231	1563.5	243.47	11.2740
425	0.28172	3.5497	11628.0	98.867	20.908	29.235	1572.7	245.80	11.3650
430	0.27845	3.5913	11774.0	99.209	20.912	29.238	1581.8	248.14	11.4550
435	0.27526	3.6329	11921.0	99.547	20.915	29.241	1590.8	250.47	11.5450
440	0.27215	3.6745	12067.0	99.882	20.918	29.244	1599.8	252.81	11.6340
445	0.26910	3.7161	12213.0	100.210	20.922	29.246	1608.8	255.15	11.7240
450	0.26612	3.7577	12359.0	100.540	20.924	29.249	1617.7	257.49	11.8130
455	0.26321	3.7993	12506.0	100.860	20.927	29.251	1626.5	259.84	11.9010
460	0.26036	3.8409	12652.0	101.180	20.930	29.253	1635.3	262.18	11.9890
465	0.25757	3.8825	12798.0	101.500	20.933	29.256	1644.1	264.53	12.0770
470	0.25484	3.9241	12944.0	101.810	20.935	29.258	1652.8	266.88	12.1650
475	0.25217	3.9657	13091.0	102.120	20.938	29.260	1661.5	269.23	12.2520
480	0.24955	4.0072	13237.0	102.430	20.940	29.262	1670.1	271.58	12.3390
485	0.24698	4.0488	13383.0	102.730	20.943	29.264	1678.7	273.94	12.4260
490	0.24447	4.0904	13530.0	103.030	20.945	29.266	1687.2	276.29	12.5130
495	0.24201	4.1320	13676.0	103.330	20.948	29.268	1695.7	278.65	12.5990
500	0.23960	4.1736	13822.0	103.620	20.950	29.271	1704.1	281.01	12.6850
					2.0 MPa				
50	5.73450	0.1744	1340.3	36.406	13.137	29.720	575.3	48.33	2.8287

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
55	4.94150	0.2024	1481.7	39.105	13.037	27.145	611.3	49.72	2.9699
60	4.37520	0.2286	1613.5	41.399	13.013	25.692	643.5	51.65	3.1238
65	3.94300	0.2536	1739.6	43.418	13.047	24.800	672.7	53.88	3.2810
70	3.59870	0.2779	1862.1	45.233	13.132	24.240	699.5	56.31	3.4378
75	3.31620	0.3016	1982.3	46.893	13.262	23.898	724.3	58.88	3.5927
80	3.07890	0.3248	2101.3	48.429	13.432	23.710	747.2	61.66	3.7453
85	2.87620	0.3477	2219.6	49.863	13.635	23.635	768.7	64.66	3.8952
90	2.70050	0.3703	2337.8	51.214	13.867	23.644	788.8	67.21	4.0426
95	2.54650	0.3927	2456.2	52.494	14.121	23.717	807.9	69.98	4.1875
100	2.41020	0.4149	2575.0	53.714	14.391	23.838	826.1	72.78	4.3301
105	2.28860	0.4370	2694.6	54.880	14.673	23.994	843.4	75.84	4.4700
110	2.17920	0.4589	2815.0	56.001	14.961	24.177	860.1	78.93	4.6078
115	2.08040	0.4807	2936.4	57.080	15.251	24.377	876.3	82.01	4.7438
120	1.99050	0.5024	3058.8	58.122	15.540	24.589	891.9	85.10	4.8781
125	1.90830	0.5240	3182.3	59.130	15.826	24.807	907.2	88.26	5.0107
130	1.83290	0.5456	3306.9	60.107	16.106	25.029	922.1	91.44	5.1417
135	1.76350	0.5671	3432.6	61.056	16.379	25.250	936.6	94.58	5.2713
140	1.69930	0.5885	3559.4	61.978	16.643	25.468	951.0	97.73	5.3994
145	1.63970	0.6099	3687.3	62.876	16.897	25.682	965.0	100.79	5.5262
150	1.58430	0.6312	3816.2	63.750	17.141	25.890	978.9	103.87	5.6518
155	1.53260	0.6525	3946.1	64.602	17.375	26.091	992.5	107.05	5.7761
160	1.48420	0.6738	4077.1	65.433	17.598	26.285	1006.0	110.25	5.8993
165	1.43890	0.6950	4209.0	66.245	17.810	26.471	1019.3	113.40	6.0213
170	1.39630	0.7162	4341.8	67.038	18.012	26.649	1032.4	116.55	6.1423
175	1.35620	0.7373	4475.5	67.813	18.203	26.819	1045.4	119.62	6.2623
180	1.31840	0.7585	4610.0	68.571	18.384	26.980	1058.2	122.69	6.3812
185	1.28270	0.7796	4745.3	69.312	18.556	27.134	1070.9	125.72	6.4992
190	1.24890	0.8007	4881.3	70.038	18.718	27.279	1083.5	128.76	6.6163
195	1.21690	0.8218	5018.0	70.748	18.870	27.416	1096.0	131.70	6.7324
200	1.18650	0.8429	5155.4	71.444	19.014	27.546	1108.3	134.65	6.8477
205	1.15760	0.8639	5293.5	72.126	19.150	27.669	1120.6	137.55	6.9621
210	1.13000	0.8849	5432.1	72.794	19.277	27.784	1132.7	140.46	7.0757
215	1.10380	0.9059	5571.3	73.449	19.397	27.893	1144.7	143.28	7.1885
220	1.07880	0.9269	5711.0	74.091	19.509	27.995	1156.6	146.10	7.3004
225	1.05490	0.9479	5851.3	74.721	19.614	28.091	1168.4	148.87	7.4116
230	1.03210	0.9689	5991.9	75.340	19.713	28.181	1180.2	151.65	7.5221
235	1.01020	0.9899	6133.1	75.947	19.805	28.265	1191.8	154.38	7.6318
240	0.98927	1.0108	6274.6	76.543	19.892	28.344	1203.3	157.11	7.7408
245	0.96918	1.0318	6416.5	77.128	19.973	28.418	1214.8	159.75	7.8491
250	0.94990	1.0527	6558.8	77.703	20.048	28.486	1226.1	162.39	7.9568
255	0.93138	1.0737	6701.3	78.267	20.119	28.551	1237.4	164.99	8.0637
260	0.91357	1.0946	6844.3	78.822	20.184	28.610	1248.6	167.59	8.1700
265	0.89644	1.1155	6987.4	79.368	20.245	28.666	1259.7	170.15	8.2757
270	0.87994	1.1364	7130.9	79.904	20.302	28.717	1270.8	172.70	8.3807
275	0.86404	1.1573	7274.6	80.432	20.355	28.765	1281.7	175.16	8.4851
280	0.84872	1.1783	7418.5	80.950	20.404	28.810	1292.6	177.63	8.5889
285	0.83393	1.1991	7562.7	81.461	20.449	28.851	1303.4	180.09	8.6921
290	0.81965	1.2200	7707.0	81.963	20.491	28.888	1314.2	182.56	8.7947
295	0.80585	1.2409	7851.6	82.457	20.530	28.924	1324.8	184.93	8.8968
300	0.79251	1.2618	7996.3	82.943	20.566	28.956	1335.4	187.31	8.9983
305	0.77961	1.2827	8141.1	83.422	20.599	28.986	1345.9	189.68	9.0993
310	0.76713	1.3036	8286.1	83.894	20.630	29.013	1356.4	192.06	9.1997
315	0.75504	1.3244	8431.3	84.358	20.658	29.038	1366.8	194.34	9.2996
320	0.74333	1.3453	8576.5	84.816	20.684	29.061	1377.1	196.63	9.3989
325	0.73198	1.3662	8721.9	85.266	20.708	29.082	1387.4	199.16	9.4978
330	0.72097	1.3870	8867.3	85.710	20.730	29.101	1397.6	201.70	9.5962
335	0.71029	1.4079	9012.9	86.148	20.750	29.119	1407.7	204.19	9.6941
340	0.69993	1.4287	9158.5	86.580	20.768	29.135	1417.8	206.68	9.7914
345	0.68986	1.4496	9304.2	87.005	20.785	29.149	1427.8	209.18	9.8884
350	0.68008	1.4704	9450.0	87.425	20.800	29.162	1437.7	211.68	9.9848
355	0.67057	1.4913	9595.8	87.838	20.814	29.174	1447.6	214.13	10.0810
360	0.66133	1.5121	9741.7	88.247	20.827	29.185	1457.4	216.58	10.1760
365	0.65234	1.5329	9887.7	88.649	20.839	29.195	1467.2	218.88	10.2720
370	0.64359	1.5538	10034.0	89.046	20.849	29.204	1476.9	221.19	10.3660
375	0.63508	1.5746	10180.0	89.439	20.859	29.212	1486.5	223.60	10.4600
380	0.62678	1.5954	10326.0	89.825	20.868	29.219	1496.1	226.01	10.5540
385	0.61871	1.6163	10472.0	90.207	20.876	29.225	1505.6	228.32	10.6480
390	0.61083	1.6371	10618.0	90.585	20.883	29.231	1515.1	230.63	10.7410
395	0.60316	1.6579	10764.0	90.957	20.890	29.236	1524.6	232.95	10.8330
400	0.59568	1.6788	10910.0	91.325	20.896	29.241	1533.9	235.27	10.9260
405	0.58838	1.6996	11057.0	91.688	20.902	29.245	1543.2	237.34	11.0180
410	0.58126	1.7204	11203.0	92.047	20.907	29.249	1552.5	239.41	11.1090
415	0.57431	1.7412	11349.0	92.402	20.911	29.252	1561.7	241.73	11.2000
420	0.56752	1.7620	11495.0	92.752	20.916	29.255	1570.9	244.06	11.2910

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
425	0.56090	1.7829	11642.0	93.098	20.919	29.258	1580.0	246.39	11.3810
430	0.55442	1.8037	11788.0	93.440	20.923	29.261	1589.0	248.72	11.4720
435	0.54810	1.8245	11934.0	93.779	20.926	29.263	1598.0	251.05	11.5610
440	0.54192	1.8453	12081.0	94.113	20.930	29.265	1607.0	253.38	11.6510
445	0.53587	1.8661	12227.0	94.444	20.933	29.267	1615.9	255.72	11.7400
450	0.52996	1.8869	12373.0	94.771	20.935	29.269	1624.8	258.05	11.8280
455	0.52418	1.9077	12520.0	95.094	20.938	29.271	1633.6	260.39	11.9170
460	0.51853	1.9285	12666.0	95.414	20.941	29.273	1642.4	262.73	12.0050
465	0.51299	1.9494	12812.0	95.731	20.943	29.274	1651.1	265.07	12.0930
470	0.50757	1.9702	12959.0	96.044	20.946	29.276	1659.7	267.42	12.1800
475	0.50227	1.9910	13105.0	96.354	20.948	29.278	1668.4	269.76	12.2670
480	0.49708	2.0118	13252.0	96.660	20.950	29.279	1677.0	272.11	12.3540
485	0.49199	2.0326	13398.0	96.964	20.953	29.281	1685.5	274.46	12.4410
490	0.48700	2.0534	13544.0	97.264	20.955	29.283	1694.0	276.81	12.5270
495	0.48212	2.0742	13691.0	97.561	20.958	29.284	1702.4	279.17	12.6130
500	0.47733	2.0950	13837.0	97.855	20.960	29.286	1710.8	281.52	12.6990
					5.0 MPa				
50	16.75900	0.0597	1030.1	24.368	13.534	41.832	694.1	79.83	4.3459
55	13.81500	0.0724	1226.9	28.124	13.460	36.915	693.1	73.82	4.0506
60	11.81300	0.0847	1401.1	31.158	13.399	33.009	708.3	70.54	3.9394
65	10.38500	0.0963	1559.2	33.689	13.393	30.397	728.6	69.25	3.9236
70	9.31290	0.1074	1706.6	35.874	13.441	28.666	750.0	69.25	3.9635
75	8.47180	0.1180	1846.8	37.810	13.541	27.502	771.3	70.10	4.0368
80	7.79040	0.1284	1982.2	39.558	13.684	26.715	791.8	72.07	4.1303
85	7.22440	0.1384	2114.4	41.161	13.866	26.188	811.4	74.31	4.2361
90	6.74500	0.1483	2244.4	42.647	14.079	25.846	830.1	76.21	4.3494
95	6.33240	0.1579	2373.1	44.038	14.317	25.640	848.0	78.24	4.4673
100	5.97260	0.1674	2501.0	45.351	14.573	25.535	865.1	80.41	4.5878
105	5.65560	0.1768	2628.5	46.595	14.842	25.505	881.5	82.91	4.7092
110	5.37350	0.1861	2756.1	47.782	15.119	25.531	897.5	85.54	4.8313
115	5.12070	0.1953	2883.9	48.919	15.400	25.599	912.9	88.27	4.9537
120	4.89250	0.2044	3012.1	50.010	15.681	25.698	927.9	91.06	5.0761
125	4.68520	0.2134	3140.9	51.062	15.959	25.820	942.6	93.95	5.1982
130	4.49610	0.2224	3270.4	52.077	16.232	25.956	957.0	96.88	5.3200
135	4.32260	0.2313	3400.5	53.059	16.499	26.103	971.0	99.79	5.4412
140	4.16290	0.2402	3531.4	54.011	16.758	26.256	984.9	102.74	5.5619
145	4.01520	0.2491	3663.1	54.935	17.007	26.411	998.5	105.62	5.6819
150	3.87820	0.2579	3795.5	55.833	17.247	26.568	1012.0	108.52	5.8013
155	3.75080	0.2666	3928.7	56.707	17.476	26.722	1025.2	111.55	5.9199
160	3.63180	0.2753	4062.7	57.558	17.696	26.875	1038.3	114.59	6.0379
165	3.52050	0.2841	4197.5	58.387	17.904	27.023	1051.3	117.61	6.1551
170	3.41620	0.2927	4333.0	59.196	18.103	27.166	1064.1	120.64	6.2717
175	3.31810	0.3014	4469.1	59.985	18.291	27.305	1076.7	123.59	6.3875
180	3.22570	0.3100	4606.0	60.756	18.470	27.438	1089.3	126.55	6.5026
185	3.13850	0.3186	4743.5	61.510	18.638	27.565	1101.7	129.47	6.6169
190	3.05610	0.3272	4881.6	62.247	18.798	27.687	1114.0	132.41	6.7306
195	2.97800	0.3358	5020.4	62.967	18.948	27.802	1126.2	135.26	6.8435
200	2.90390	0.3444	5159.7	63.673	19.090	27.912	1138.3	138.12	6.9558
205	2.83360	0.3529	5299.5	64.363	19.223	28.015	1150.2	140.94	7.0674
210	2.76670	0.3614	5439.8	65.039	19.349	28.113	1162.1	143.77	7.1783
215	2.70290	0.3700	5580.6	65.702	19.467	28.206	1173.9	146.51	7.2885
220	2.64210	0.3785	5721.8	66.351	19.577	28.293	1185.5	149.26	7.3981
225	2.58410	0.3870	5863.5	66.988	19.681	28.375	1197.1	151.96	7.5070
230	2.52860	0.3955	6005.6	67.613	19.778	28.452	1208.6	154.67	7.6153
235	2.47550	0.4040	6148.0	68.225	19.869	28.524	1220.0	157.34	7.7229
240	2.42470	0.4124	6290.8	68.827	19.954	28.591	1231.3	160.02	7.8300
245	2.37590	0.4209	6433.9	69.417	20.034	28.654	1242.6	162.60	7.9364
250	2.32910	0.4294	6577.3	69.996	20.108	28.712	1253.7	165.19	8.0422
255	2.28410	0.4378	6721.0	70.565	20.177	28.767	1264.8	167.74	8.1474
260	2.24090	0.4463	6865.0	71.124	20.241	28.818	1275.8	170.29	8.2520
265	2.19930	0.4547	7009.2	71.674	20.301	28.865	1286.7	172.79	8.3561
270	2.15930	0.4631	7153.6	72.214	20.357	28.908	1297.5	175.30	8.4596
275	2.12070	0.4716	7298.3	72.745	20.409	28.949	1308.3	177.72	8.5625
280	2.08350	0.4800	7443.1	73.267	20.457	28.986	1319.0	180.14	8.6649
285	2.04760	0.4884	7588.1	73.780	20.501	29.020	1329.6	182.57	8.7668
290	2.01290	0.4968	7733.3	74.285	20.542	29.052	1340.2	184.99	8.8681
295	1.97940	0.5052	7878.7	74.782	20.580	29.081	1350.6	187.33	8.9689
300	1.94700	0.5136	8024.1	75.271	20.615	29.107	1361.1	189.67	9.0692
305	1.91570	0.5220	8169.7	75.752	20.648	29.131	1371.4	192.01	9.1689
310	1.88540	0.5304	8315.4	76.226	20.678	29.153	1381.7	194.35	9.2682
315	1.85600	0.5388	8461.3	76.693	20.705	29.174	1391.9	196.60	9.3670
320	1.82750	0.5472	8607.2	77.152	20.730	29.192	1402.1	198.85	9.4653
325	1.80000	0.5556	8753.2	77.605	20.753	29.208	1412.1	201.36	9.5632
330	1.77320	0.5640	8899.2	78.051	20.774	29.223	1422.2	203.87	9.6605

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
335	1.74720	0.5723	9045.4	78.491	20.794	29.237	1432.1	206.33	9.7574
340	1.72200	0.5807	9191.6	78.924	20.812	29.249	1442.0	208.79	9.8539
345	1.69760	0.5891	9337.9	79.351	20.828	29.260	1451.9	211.26	9.9499
350	1.67380	0.5975	9484.2	79.772	20.843	29.269	1461.7	213.73	10.0450
355	1.65070	0.6058	9630.6	80.187	20.856	29.278	1471.4	216.15	10.1410
360	1.62820	0.6142	9777.0	80.597	20.868	29.285	1481.1	218.58	10.2350
365	1.60630	0.6226	9923.4	81.001	20.879	29.292	1490.7	220.86	10.3300
370	1.58500	0.6309	10070.0	81.399	20.889	29.298	1500.3	223.14	10.4240
375	1.56430	0.6393	10216.0	81.793	20.899	29.303	1509.8	225.53	10.5170
380	1.54410	0.6476	10363.0	82.181	20.907	29.307	1519.2	227.92	10.6100
385	1.52440	0.6560	10509.0	82.564	20.914	29.311	1528.6	230.21	10.7030
390	1.50530	0.6643	10656.0	82.942	20.921	29.314	1537.9	232.50	10.7950
395	1.48660	0.6727	10803.0	83.315	20.927	29.317	1547.2	234.79	10.8870
400	1.46830	0.6810	10949.0	83.684	20.933	29.319	1556.5	237.09	10.9790
405	1.45060	0.6894	11096.0	84.049	20.938	29.321	1565.6	239.14	11.0700
410	1.43320	0.6977	11242.0	84.408	20.943	29.323	1574.8	241.20	11.1610
415	1.41630	0.7061	11389.0	84.764	20.947	29.324	1583.9	243.50	11.2510
420	1.39970	0.7144	11536.0	85.115	20.951	29.325	1592.9	245.81	11.3420
425	1.38360	0.7228	11682.0	85.462	20.954	29.326	1601.9	248.12	11.4310
430	1.36780	0.7311	11829.0	85.805	20.957	29.327	1610.8	250.43	11.5210
435	1.35230	0.7395	11976.0	86.144	20.960	29.327	1619.7	252.74	11.6100
440	1.33730	0.7478	12122.0	86.479	20.963	29.327	1628.5	255.06	11.6990
445	1.32250	0.7561	12269.0	86.811	20.966	29.328	1637.3	257.38	11.7870
450	1.30810	0.7645	12415.0	87.138	20.968	29.328	1646.0	259.70	11.8760
455	1.29400	0.7728	12562.0	87.462	20.970	29.328	1654.7	262.02	11.9630
460	1.28020	0.7811	12709.0	87.783	20.973	29.328	1663.4	264.35	12.0510
465	1.26670	0.7895	12855.0	88.100	20.975	29.329	1672.0	266.68	12.1380
470	1.25340	0.7978	13002.0	88.414	20.977	29.329	1680.5	269.01	12.2250
475	1.24050	0.8062	13149.0	88.724	20.979	29.329	1689.1	271.34	12.3120
480	1.22780	0.8145	13295.0	89.031	20.981	29.329	1697.5	273.67	12.3980
485	1.21530	0.8228	13442.0	89.335	20.983	29.330	1706.0	276.01	12.4850
490	1.20320	0.8311	13589.0	89.636	20.985	29.330	1714.3	278.35	12.5700
495	1.19120	0.8395	13735.0	89.934	20.987	29.331	1722.7	280.69	12.6560
500	1.17950	0.8478	13882.0	90.228	20.989	29.331	1731.0	283.03	12.7410
					10.0 MPa				
50	26.21000	0.0382	915.7	17.530	13.588	31.588	1012.9	109.50	6.6912
55	23.64000	0.0423	1076.5	20.595	13.628	32.559	963.5	104.06	6.0412
60	21.29300	0.0470	1239.7	23.433	13.661	32.552	932.2	99.80	5.6012
65	19.24700	0.0520	1401.0	26.016	13.705	31.900	915.8	96.52	5.3208
70	17.50900	0.0571	1558.2	28.347	13.772	30.980	910.1	94.00	5.1546
75	16.04600	0.0623	1710.8	30.452	13.872	30.048	911.3	92.10	5.0671
80	14.81300	0.0675	1858.9	32.365	14.007	29.227	916.8	91.84	5.0328
85	13.76500	0.0726	2003.3	34.116	14.176	28.559	925.0	92.03	5.0349
90	12.86600	0.0777	2144.7	35.733	14.375	28.042	934.7	92.55	5.0623
95	12.08800	0.0827	2283.9	37.238	14.598	27.657	945.4	93.20	5.1082
100	11.40700	0.0877	2421.5	38.649	14.840	27.383	956.6	94.17	5.1679
105	10.80500	0.0925	2557.9	39.981	15.095	27.199	968.2	95.64	5.2407
110	10.27000	0.0974	2693.6	41.243	15.360	27.087	980.0	97.42	5.3208
115	9.78980	0.1022	2828.9	42.446	15.629	27.032	991.9	99.46	5.4065
120	9.35680	0.1069	2964.0	43.596	15.900	27.021	1003.8	101.65	5.4967
125	8.96380	0.1116	3099.1	44.699	16.168	27.044	1015.8	104.00	5.5906
130	8.60530	0.1162	3234.5	45.761	16.433	27.093	1027.8	106.45	5.6874
135	8.27670	0.1208	3370.1	46.785	16.691	27.161	1039.8	108.94	5.7865
140	7.97430	0.1254	3506.1	47.774	16.942	27.243	1051.7	111.50	5.8875
145	7.69490	0.1300	3642.6	48.731	17.184	27.335	1063.7	114.03	5.9900
150	7.43580	0.1345	3779.5	49.660	17.417	27.433	1075.6	116.61	6.0935
155	7.19490	0.1390	3916.9	50.561	17.641	27.535	1087.4	119.34	6.1980
160	6.97010	0.1435	4054.8	51.437	17.854	27.639	1099.2	122.12	6.3031
165	6.75980	0.1479	4193.3	52.289	18.058	27.744	1111.0	124.88	6.4086
170	6.56260	0.1524	4332.3	53.119	18.251	27.847	1122.7	127.68	6.5145
175	6.37730	0.1568	4471.8	53.927	18.435	27.949	1134.3	130.41	6.6205
180	6.20280	0.1612	4611.7	54.716	18.609	28.048	1145.9	133.17	6.7267
185	6.03810	0.1656	4752.2	55.486	18.774	28.143	1157.4	135.90	6.8328
190	5.88240	0.1700	4893.2	56.238	18.929	28.236	1168.9	138.66	6.9388
195	5.73490	0.1744	5034.6	56.972	19.076	28.324	1180.2	141.34	7.0447
200	5.59500	0.1787	5176.4	57.690	19.215	28.408	1191.6	144.05	7.1505
205	5.46210	0.1831	5318.7	58.393	19.345	28.489	1202.8	146.72	7.2559
210	5.33560	0.1874	5461.3	59.080	19.467	28.565	1214.0	149.41	7.3611
215	5.21510	0.1918	5604.3	59.753	19.582	28.637	1225.1	152.02	7.4660
220	5.10020	0.1961	5747.7	60.412	19.690	28.705	1236.2	154.64	7.5706
225	4.99040	0.2004	5891.3	61.058	19.791	28.769	1247.2	157.22	7.6748
230	4.88550	0.2047	6035.3	61.691	19.886	28.829	1258.1	159.82	7.7786
235	4.78500	0.2090	6179.6	62.312	19.974	28.885	1269.0	162.38	7.8821
240	4.68870	0.2133	6324.2	62.921	20.057	28.937	1279.8	164.95	7.9852

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
245	4.59640	0.2176	6469.0	63.518	20.134	28.986	1290.5	167.44	8.0879
250	4.50770	0.2218	6614.0	64.104	20.207	29.032	1301.2	169.93	8.1901
255	4.42250	0.2261	6759.3	64.679	20.274	29.074	1311.8	172.39	8.2920
260	4.34060	0.2304	6904.8	65.244	20.336	29.113	1322.3	174.85	8.3934
265	4.26170	0.2347	7050.4	65.799	20.394	29.148	1332.8	177.28	8.4944
270	4.18580	0.2389	7196.2	66.344	20.448	29.181	1343.2	179.71	8.5950
275	4.11260	0.2432	7342.2	66.880	20.498	29.212	1353.6	182.05	8.6951
280	4.04190	0.2474	7488.4	67.406	20.545	29.239	1363.8	184.39	8.7948
285	3.97380	0.2517	7634.6	67.924	20.587	29.265	1374.1	186.75	8.8941
290	3.90790	0.2559	7781.0	68.433	20.627	29.287	1384.3	189.11	8.9930
295	3.84430	0.2601	7927.5	68.934	20.663	29.308	1394.4	191.38	9.0915
300	3.78270	0.2644	8074.1	69.427	20.697	29.327	1404.4	193.65	9.1895
305	3.72310	0.2686	8220.8	69.912	20.728	29.344	1414.4	195.93	9.2871
310	3.66540	0.2728	8367.5	70.389	20.757	29.359	1424.4	198.22	9.3843
315	3.60950	0.2770	8514.3	70.859	20.783	29.372	1434.2	200.41	9.4811
320	3.55540	0.2813	8661.2	71.322	20.807	29.384	1444.1	202.61	9.5775
325	3.50280	0.2855	8808.2	71.777	20.829	29.394	1453.8	205.06	9.6734
330	3.45180	0.2897	8955.2	72.226	20.849	29.403	1463.5	207.51	9.7690
335	3.40240	0.2939	9102.2	72.668	20.867	29.411	1473.2	209.92	9.8642
340	3.35430	0.2981	9249.3	73.104	20.884	29.417	1482.8	212.34	9.9590
345	3.30760	0.3023	9396.4	73.534	20.899	29.423	1492.4	214.76	10.0530
350	3.26220	0.3065	9543.5	73.957	20.912	29.427	1501.9	217.18	10.1470
355	3.21810	0.3108	9690.6	74.374	20.925	29.431	1511.3	219.56	10.2410
360	3.17510	0.3150	9837.8	74.786	20.936	29.434	1520.7	221.95	10.3340
365	3.13330	0.3192	9985.0	75.192	20.946	29.436	1530.0	224.19	10.4270
370	3.09260	0.3234	10132.0	75.593	20.955	29.438	1539.3	226.43	10.5200
375	3.05300	0.3275	10279.0	75.988	20.964	29.439	1548.6	228.77	10.6120
380	3.01440	0.3317	10427.0	76.378	20.971	29.439	1557.8	231.12	10.7040
385	2.97680	0.3359	10574.0	76.762	20.978	29.439	1566.9	233.38	10.7950
390	2.94010	0.3401	10721.0	77.142	20.984	29.439	1576.0	235.63	10.8860
395	2.90430	0.3443	10868.0	77.517	20.989	29.438	1585.0	237.89	10.9770
400	2.86940	0.3485	11015.0	77.888	20.994	29.437	1594.0	240.16	11.0670
405	2.83530	0.3527	11163.0	78.253	20.998	29.435	1603.0	242.17	11.1570
410	2.80210	0.3569	11310.0	78.614	21.002	29.434	1611.9	244.19	11.2470
415	2.76960	0.3611	11457.0	78.971	21.005	29.432	1620.7	246.47	11.3370
420	2.73780	0.3653	11604.0	79.324	21.008	29.430	1629.5	248.74	11.4260
425	2.70680	0.3694	11751.0	79.672	21.011	29.428	1638.3	251.02	11.5150
430	2.67660	0.3736	11898.0	80.016	21.014	29.426	1647.0	253.30	11.6030
435	2.64690	0.3778	12045.0	80.356	21.016	29.424	1655.6	255.59	11.6910
440	2.61800	0.3820	12193.0	80.693	21.018	29.422	1664.3	257.88	11.7790
445	2.58960	0.3862	12340.0	81.025	21.020	29.420	1672.8	260.17	11.8670
450	2.56190	0.3903	12487.0	81.354	21.022	29.417	1681.4	262.46	11.9540
455	2.53480	0.3945	12634.0	81.679	21.024	29.415	1689.9	264.76	12.0410
460	2.50820	0.3987	12781.0	82.000	21.025	29.413	1698.3	267.06	12.1280
465	2.48230	0.4029	12928.0	82.318	21.027	29.411	1706.7	269.36	12.2140
470	2.45680	0.4070	13075.0	82.633	21.028	29.409	1715.1	271.66	12.3000
475	2.43190	0.4112	13222.0	82.944	21.030	29.408	1723.4	273.97	12.3860
480	2.40740	0.4154	13369.0	83.252	21.031	29.406	1731.7	276.28	12.4720
485	2.38350	0.4196	13516.0	83.557	21.033	29.404	1739.9	278.59	12.5570
490	2.36000	0.4237	13663.0	83.858	21.034	29.403	1748.1	280.91	12.6420
495	2.33700	0.4279	13810.0	84.157	21.036	29.402	1756.2	283.23	12.7270
500	2.31450	0.4321	13957.0	84.452	21.037	29.401	1764.4	285.55	12.8120
					20.0 MPa				
50	33.14600	0.0302	1015.3	12.867	13.978	25.177	1389.5	144.00	10.0640
55	31.46300	0.0318	1143.9	15.318	14.055	26.229	1344.9	141.23	9.1451
60	29.80700	0.0335	1277.2	17.637	14.114	27.029	1305.7	138.85	8.4330
65	28.20700	0.0355	1413.8	19.824	14.179	27.592	1272.3	136.75	7.8815
70	26.68400	0.0375	1552.8	21.883	14.261	27.952	1245.0	134.73	7.4570
75	25.25500	0.0396	1693.1	23.819	14.370	28.151	1223.3	132.26	7.1337
80	23.92700	0.0418	1834.1	25.639	14.507	28.236	1206.6	129.30	6.8912
85	22.70200	0.0440	1975.3	27.352	14.672	28.248	1194.3	126.48	6.7131
90	21.57800	0.0463	2116.5	28.965	14.862	28.220	1185.6	123.60	6.5863
95	20.54800	0.0487	2257.5	30.490	15.073	28.175	1180.0	122.44	6.5005
100	19.60600	0.0510	2398.3	31.934	15.301	28.130	1176.9	121.79	6.4473
105	18.74400	0.0534	2538.8	33.306	15.542	28.094	1175.9	121.81	6.4277
110	17.95300	0.0557	2679.2	34.612	15.792	28.073	1176.7	122.22	6.4278
115	17.22700	0.0580	2819.6	35.860	16.046	28.067	1178.9	122.91	6.4438
120	16.55900	0.0604	2959.9	37.054	16.301	28.077	1182.3	123.88	6.4728
125	15.94300	0.0627	3100.4	38.201	16.555	28.102	1186.7	125.14	6.5123
130	15.37300	0.0651	3241.0	39.304	16.806	28.140	1191.9	126.60	6.5603
135	14.84400	0.0674	3381.8	40.367	17.051	28.188	1197.9	128.18	6.6155
140	14.35200	0.0697	3522.9	41.393	17.289	28.244	1204.4	129.93	6.6764
145	13.89400	0.0720	3664.2	42.385	17.520	28.306	1211.4	131.70	6.7421
150	13.46600	0.0743	3805.9	43.346	17.742	28.374	1218.8	133.60	6.8118

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
155	13.06400	0.0765	3948.0	44.277	17.955	28.444	1226.6	135.70	6.8848
160	12.68800	0.0788	4090.4	45.182	18.159	28.516	1234.7	137.89	6.9607
165	12.33400	0.0811	4233.1	46.060	18.353	28.589	1243.0	140.11	7.0389
170	12.00000	0.0833	4376.3	46.915	18.538	28.661	1251.5	142.41	7.1192
175	11.68500	0.0856	4519.7	47.746	18.713	28.732	1260.3	144.67	7.2012
180	11.38800	0.0878	4663.6	48.557	18.879	28.802	1269.1	147.00	7.2848
185	11.10500	0.0900	4807.8	49.347	19.036	28.870	1278.1	149.33	7.3697
190	10.83800	0.0923	4952.3	50.118	19.185	28.935	1287.2	151.71	7.4557
195	10.58300	0.0945	5097.1	50.870	19.325	28.997	1296.4	154.03	7.5428
200	10.34100	0.0967	5242.2	51.605	19.457	29.057	1305.6	156.40	7.6307
205	10.11100	0.0989	5387.7	52.323	19.581	29.114	1314.9	158.76	7.7194
210	9.89080	0.1011	5533.4	53.025	19.698	29.168	1324.3	161.15	7.8088
215	9.68070	0.1033	5679.3	53.712	19.807	29.218	1333.6	163.47	7.8988
220	9.47980	0.1055	5825.5	54.385	19.910	29.266	1343.0	165.82	7.9892
225	9.28740	0.1077	5972.0	55.043	20.006	29.310	1352.5	168.16	8.0801
230	9.10310	0.1099	6118.6	55.687	20.096	29.351	1361.9	170.51	8.1714
235	8.92640	0.1120	6265.5	56.319	20.180	29.390	1371.3	172.84	8.2629
240	8.75660	0.1142	6412.5	56.938	20.258	29.425	1380.8	175.20	8.3547
245	8.59350	0.1164	6559.7	57.545	20.331	29.457	1390.2	177.47	8.4466
250	8.43670	0.1185	6707.1	58.141	20.399	29.487	1399.6	179.77	8.5387
255	8.28570	0.1207	6854.6	58.725	20.463	29.514	1409.0	182.03	8.6309
260	8.14020	0.1229	7002.2	59.298	20.521	29.539	1418.4	184.31	8.7232
265	8.00000	0.1250	7150.0	59.861	20.576	29.561	1427.8	186.56	8.8155
270	7.86470	0.1272	7297.8	60.414	20.626	29.581	1437.1	188.82	8.9079
275	7.73400	0.1293	7445.8	60.957	20.673	29.599	1446.4	191.00	9.0001
280	7.60790	0.1314	7593.8	61.490	20.716	29.614	1455.7	193.20	9.0924
285	7.48590	0.1336	7741.9	62.015	20.756	29.628	1465.0	195.40	9.1846
290	7.36790	0.1357	7890.1	62.530	20.793	29.640	1474.3	197.62	9.2766
295	7.25370	0.1379	8038.3	63.037	20.826	29.650	1483.5	199.75	9.3686
300	7.14310	0.1400	8186.6	63.535	20.857	29.658	1492.7	201.89	9.4604
305	7.03590	0.1421	8334.9	64.026	20.886	29.665	1501.8	204.04	9.5521
310	6.93210	0.1443	8483.3	64.508	20.911	29.671	1510.9	206.20	9.6436
315	6.83130	0.1464	8631.6	64.983	20.935	29.675	1520.0	208.28	9.7350
320	6.73350	0.1485	8780.0	65.450	20.957	29.678	1529.1	210.36	9.8262
325	6.63860	0.1506	8928.4	65.910	20.976	29.680	1538.1	212.70	9.9172
330	6.54630	0.1528	9076.8	66.363	20.994	29.681	1547.1	215.04	10.0080
335	6.45670	0.1549	9225.2	66.810	21.010	29.681	1556.1	217.35	10.0990
340	6.36960	0.1570	9373.6	67.249	21.024	29.680	1565.0	219.66	10.1890
345	6.28480	0.1591	9522.0	67.683	21.037	29.678	1573.8	221.99	10.2790
350	6.20240	0.1612	9670.4	68.110	21.049	29.676	1582.7	224.32	10.3690
355	6.12210	0.1633	9818.8	68.531	21.060	29.673	1591.5	226.60	10.4590
360	6.04390	0.1655	9967.1	68.946	21.069	29.669	1600.3	228.90	10.5480
365	5.96780	0.1676	10115.0	69.355	21.077	29.665	1609.0	231.05	10.6370
370	5.89360	0.1697	10264.0	69.758	21.085	29.661	1617.7	233.20	10.7260
375	5.82120	0.1718	10412.0	70.157	21.091	29.656	1626.3	235.47	10.8150
380	5.75070	0.1739	10560.0	70.549	21.097	29.650	1634.9	237.74	10.9040
385	5.68190	0.1760	10709.0	70.937	21.102	29.645	1643.5	239.91	10.9920
390	5.61470	0.1781	10857.0	71.319	21.106	29.639	1652.0	242.09	11.0800
395	5.54920	0.1802	11005.0	71.697	21.110	29.633	1660.5	244.28	11.1680
400	5.48510	0.1823	11153.0	72.070	21.113	29.627	1669.0	246.47	11.2550
405	5.42260	0.1844	11301.0	72.438	21.116	29.621	1677.4	248.41	11.3430
410	5.36150	0.1865	11449.0	72.801	21.118	29.615	1685.8	250.37	11.4300
415	5.30190	0.1886	11597.0	73.160	21.120	29.609	1694.2	252.57	11.5170
420	5.24350	0.1907	11745.0	73.514	21.122	29.602	1702.5	254.78	11.6030
425	5.18640	0.1928	11893.0	73.865	21.123	29.596	1710.8	257.00	11.6900
430	5.13060	0.1949	12041.0	74.211	21.125	29.590	1719.0	259.22	11.7760
435	5.07600	0.1970	12189.0	74.553	21.125	29.584	1727.2	261.44	11.8620
440	5.02260	0.1991	12337.0	74.891	21.126	29.578	1735.4	263.67	11.9470
445	4.97030	0.2012	12485.0	75.225	21.127	29.572	1743.5	265.91	12.0330
450	4.91910	0.2033	12633.0	75.556	21.128	29.566	1751.6	268.14	12.1180
455	4.86900	0.2054	12781.0	75.882	21.128	29.560	1759.6	270.38	12.2030
460	4.81990	0.2075	12929.0	76.205	21.128	29.555	1767.6	272.63	12.2880
465	4.77180	0.2096	13076.0	76.525	21.129	29.549	1775.6	274.88	12.3720
470	4.72460	0.2117	13224.0	76.841	21.129	29.544	1783.6	277.13	12.4560
475	4.67840	0.2138	13372.0	77.153	21.130	29.539	1791.5	279.39	12.5400
480	4.63310	0.2158	13519.0	77.463	21.130	29.534	1799.3	281.65	12.6240
485	4.58870	0.2179	13667.0	77.769	21.130	29.530	1807.2	283.91	12.7080
490	4.54510	0.2200	13815.0	78.072	21.131	29.526	1815.0	286.18	12.7910
495	4.50240	0.2221	13962.0	78.371	21.132	29.522	1822.8	288.45	12.8740
500	4.46040	0.2242	14110.0	78.668	21.132	29.518	1830.5	290.73	12.9570
					50.0 MPa				
50	41.56400	0.0241	1534.6	7.386	14.504	21.087	1952.5	204.66	18.0020
55	40.52600	0.0247	1642.2	9.438	14.724	21.962	1926.9	206.21	16.5610
60	39.49200	0.0253	1754.0	11.382	14.897	22.706	1901.6	208.05	15.3710

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
65	38.46800	0.0260	1869.1	13.225	15.047	23.349	1876.7	209.90	14.3720
70	37.46100	0.0267	1987.3	14.977	15.193	23.914	1852.4	211.31	13.5270
75	36.47500	0.0274	2108.2	16.644	15.345	24.419	1828.8	211.44	12.8070
80	35.51300	0.0282	2231.4	18.235	15.511	24.877	1806.3	208.76	12.1930
85	34.57800	0.0289	2356.9	19.756	15.692	25.296	1785.0	204.33	11.6690
90	33.67200	0.0297	2484.3	21.213	15.889	25.682	1765.1	197.84	11.2210
95	32.79600	0.0305	2613.6	22.611	16.099	26.039	1746.5	194.79	10.8390
100	31.95200	0.0313	2744.7	23.955	16.321	26.371	1729.6	192.16	10.5130
105	31.13800	0.0321	2877.3	25.250	16.551	26.680	1714.2	190.16	10.2570
110	30.35600	0.0329	3011.4	26.497	16.786	26.967	1700.4	188.53	10.0370
115	29.60500	0.0338	3146.9	27.702	17.023	27.234	1688.1	187.15	9.8492
120	28.88400	0.0346	3283.7	28.866	17.260	27.482	1677.4	186.09	9.6903
125	28.19200	0.0355	3421.7	29.993	17.494	27.713	1668.1	185.37	9.5569
130	27.52900	0.0363	3560.8	31.084	17.724	27.927	1660.2	184.92	9.4462
135	26.89300	0.0372	3701.0	32.142	17.948	28.126	1653.6	184.68	9.3556
140	26.28300	0.0380	3842.1	33.168	18.166	28.310	1648.1	184.67	9.2827
145	25.69900	0.0389	3984.1	34.165	18.375	28.481	1643.7	184.78	9.2256
150	25.13900	0.0398	4126.9	35.133	18.577	28.639	1640.4	185.08	9.1824
155	24.60100	0.0406	4270.4	36.074	18.770	28.785	1638.0	185.67	9.1516
160	24.08500	0.0415	4414.7	36.990	18.954	28.920	1636.4	186.42	9.1319
165	23.59000	0.0424	4559.6	37.882	19.129	29.044	1635.6	187.27	9.1219
170	23.11500	0.0433	4705.1	38.751	19.295	29.159	1635.5	188.27	9.1207
175	22.65800	0.0441	4851.2	39.598	19.452	29.264	1636.1	189.30	9.1272
180	22.21800	0.0450	4997.8	40.424	19.601	29.361	1637.2	190.45	9.1408
185	21.79600	0.0459	5144.8	41.229	19.741	29.450	1638.9	191.66	9.1606
190	21.38900	0.0468	5292.2	42.016	19.873	29.532	1641.1	192.98	9.1860
195	20.99800	0.0476	5440.1	42.784	19.998	29.606	1643.7	194.30	9.2164
200	20.62100	0.0485	5588.3	43.534	20.114	29.674	1646.7	195.70	9.2514
205	20.25700	0.0494	5736.8	44.268	20.224	29.736	1650.1	197.14	9.2904
210	19.90600	0.0502	5885.6	44.985	20.327	29.793	1653.8	198.66	9.3332
215	19.56800	0.0511	6034.7	45.687	20.423	29.844	1657.8	200.15	9.3793
220	19.24100	0.0520	6184.1	46.373	20.512	29.890	1662.0	201.70	9.4284
225	18.92500	0.0528	6333.6	47.046	20.596	29.931	1666.6	203.27	9.4802
230	18.61900	0.0537	6483.4	47.704	20.674	29.968	1671.3	204.90	9.5345
235	18.32400	0.0546	6633.3	48.349	20.746	30.001	1676.3	206.53	9.5910
240	18.03800	0.0554	6783.4	48.981	20.813	30.031	1681.4	208.22	9.6495
245	17.76100	0.0563	6933.6	49.600	20.876	30.056	1686.7	209.85	9.7099
250	17.49300	0.0572	7083.9	50.208	20.933	30.078	1692.2	211.53	9.7720
255	17.23300	0.0580	7234.4	50.803	20.987	30.098	1697.8	213.21	9.8356
260	16.98100	0.0589	7384.9	51.388	21.036	30.114	1703.6	214.92	9.9005
265	16.73700	0.0597	7535.5	51.962	21.081	30.127	1709.5	216.62	9.9667
270	16.50000	0.0606	7686.2	52.525	21.122	30.138	1715.4	218.36	10.0340
275	16.26900	0.0615	7836.9	53.078	21.160	30.147	1721.5	220.04	10.1020
280	16.04500	0.0623	7987.6	53.621	21.195	30.153	1727.7	221.74	10.1720
285	15.82800	0.0632	8138.4	54.155	21.227	30.157	1733.9	223.48	10.2420
290	15.61600	0.0640	8289.2	54.680	21.255	30.160	1740.3	225.24	10.3130
295	15.41100	0.0649	8440.0	55.195	21.281	30.161	1746.6	226.94	10.3840
300	15.21000	0.0657	8590.8	55.702	21.305	30.160	1753.1	228.66	10.4560
305	15.01600	0.0666	8741.6	56.201	21.326	30.157	1759.6	230.40	10.5290
310	14.82600	0.0675	8892.4	56.691	21.345	30.154	1766.1	232.17	10.6020
315	14.64100	0.0683	9043.2	57.173	21.362	30.149	1772.7	233.86	10.6760
320	14.46100	0.0692	9193.9	57.648	21.377	30.143	1779.3	235.57	10.7500
325	14.28500	0.0700	9344.6	58.115	21.390	30.136	1786.0	237.55	10.8240
330	14.11400	0.0709	9495.2	58.575	21.401	30.128	1792.7	239.56	10.8990
335	13.94700	0.0717	9645.9	59.028	21.411	30.119	1799.4	241.53	10.9740
340	13.78400	0.0726	9796.4	59.475	21.420	30.110	1806.2	243.51	11.0490
345	13.62500	0.0734	9947.0	59.914	21.427	30.100	1812.9	245.52	11.1250
350	13.46900	0.0742	10097.0	60.347	21.434	30.089	1819.7	247.54	11.2000
355	13.31700	0.0751	10248.0	60.774	21.439	30.078	1826.5	249.53	11.2760
360	13.16900	0.0759	10398.0	61.194	21.443	30.066	1833.3	251.54	11.3520
365	13.02400	0.0768	10549.0	61.609	21.446	30.054	1840.1	253.41	11.4280
370	12.88200	0.0776	10699.0	62.018	21.448	30.042	1847.0	255.29	11.5050
375	12.74400	0.0785	10849.0	62.421	21.450	30.030	1853.8	257.29	11.5810
380	12.60800	0.0793	10999.0	62.819	21.451	30.017	1860.6	259.30	11.6570
385	12.47600	0.0802	11149.0	63.211	21.452	30.004	1867.5	261.22	11.7340
390	12.34600	0.0810	11299.0	63.598	21.451	29.991	1874.3	263.15	11.8100
395	12.21900	0.0818	11449.0	63.980	21.451	29.979	1881.1	265.10	11.8870
400	12.09500	0.0827	11599.0	64.357	21.450	29.966	1888.0	267.06	11.9630
405	11.97300	0.0835	11749.0	64.729	21.448	29.953	1894.8	268.78	12.0400
410	11.85400	0.0844	11898.0	65.097	21.447	29.940	1901.6	270.51	12.1170
415	11.73700	0.0852	12048.0	65.460	21.445	29.927	1908.4	272.50	12.1930
420	11.62200	0.0860	12198.0	65.818	21.443	29.915	1915.3	274.50	12.2700
425	11.51000	0.0869	12347.0	66.172	21.440	29.902	1922.1	276.51	12.3460
430	11.40000	0.0877	12497.0	66.521	21.438	29.890	1928.8	278.53	12.4230

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
435	11.29200	0.0886	12646.0	66.867	21.435	29.878	1935.6	280.56	12.5000
440	11.18600	0.0894	12795.0	67.208	21.432	29.866	1942.4	282.59	12.5760
445	11.08200	0.0902	12945.0	67.546	21.429	29.855	1949.2	284.64	12.6530
450	10.98100	0.0911	13094.0	67.879	21.427	29.843	1955.9	286.69	12.7290
455	10.88100	0.0919	13243.0	68.209	21.424	29.832	1962.6	288.75	12.8050
460	10.78200	0.0927	13392.0	68.535	21.421	29.822	1969.4	290.82	12.8820
465	10.68600	0.0936	13541.0	68.857	21.418	29.811	1976.1	292.90	12.9580
470	10.59200	0.0944	13690.0	69.176	21.416	29.801	1982.8	294.99	13.0340
475	10.49900	0.0953	13839.0	69.491	21.413	29.791	1989.5	297.08	13.1110
480	10.40700	0.0961	13988.0	69.803	21.410	29.781	1996.1	299.18	13.1870
485	10.31800	0.0969	14137.0	70.112	21.408	29.772	2002.8	301.29	13.2630
490	10.23000	0.0978	14286.0	70.417	21.405	29.763	2009.4	303.40	13.3390
495	10.14300	0.0986	14435.0	70.719	21.403	29.754	2016.0	305.52	13.4150
500	10.05800	0.0994	14584.0	71.018	21.401	29.746	2022.6	307.65	13.4910
					100.0 MPa				
50	48.49600	0.0206	2427.9	3.121	14.584	18.974	2468.2	N/A	N/A
55	47.75200	0.0209	2525.3	4.976	15.002	19.933	2452.8	N/A	N/A
60	47.00200	0.0213	2627.0	6.746	15.336	20.749	2436.7	N/A	N/A
65	46.25200	0.0216	2732.6	8.436	15.618	21.459	2420.1	N/A	N/A
70	45.50700	0.0220	2841.5	10.049	15.871	22.091	2403.1	N/A	N/A
75	44.77000	0.0223	2953.4	11.593	16.110	22.666	2385.7	N/A	N/A
80	44.04200	0.0227	3068.1	13.073	16.345	23.197	2368.2	N/A	N/A
85	43.32600	0.0231	3185.3	14.495	16.582	23.693	2350.6	N/A	N/A
90	42.62300	0.0235	3304.9	15.862	16.822	24.162	2333.3	287.44	17.2180
95	41.93400	0.0238	3426.9	17.181	17.065	24.606	2316.2	284.74	16.8770
100	41.25900	0.0242	3551.0	18.454	17.312	25.027	2299.6	282.38	16.5190
105	40.59900	0.0246	3677.1	19.685	17.560	25.428	2283.6	280.67	16.2650
110	39.95500	0.0250	3805.2	20.876	17.807	25.807	2268.2	279.29	15.9830
115	39.32600	0.0254	3935.1	22.031	18.051	26.166	2253.6	278.08	15.6880
120	38.71200	0.0258	4066.8	23.152	18.290	26.505	2239.8	277.15	15.3900
125	38.11300	0.0262	4200.2	24.241	18.524	26.824	2226.8	276.57	15.0980
130	37.53000	0.0266	4335.0	25.299	18.751	27.123	2214.7	276.23	14.8170
135	36.96100	0.0271	4471.4	26.328	18.969	27.404	2203.5	276.07	14.5510
140	36.40700	0.0275	4609.0	27.329	19.179	27.666	2193.1	276.13	14.3000
145	35.86800	0.0279	4748.0	28.304	19.380	27.910	2183.5	276.27	14.0670
150	35.34200	0.0283	4888.1	29.254	19.571	28.138	2174.8	276.60	13.8510
155	34.83000	0.0287	5029.3	30.180	19.752	28.349	2166.8	277.25	13.6530
160	34.33200	0.0291	5171.6	31.084	19.924	28.545	2159.6	278.07	13.4710
165	33.84700	0.0295	5314.8	31.965	20.087	28.726	2153.0	278.97	13.3060
170	33.37400	0.0300	5458.8	32.825	20.240	28.893	2147.2	280.03	13.1560
175	32.91300	0.0304	5603.7	33.665	20.384	29.048	2142.0	281.09	13.0210
180	32.46500	0.0308	5749.3	34.485	20.519	29.190	2137.4	282.27	12.9000
185	32.02800	0.0312	5895.6	35.287	20.646	29.320	2133.4	283.51	12.7910
190	31.60200	0.0316	6042.5	36.070	20.764	29.440	2129.9	284.85	12.6950
195	31.18700	0.0321	6189.9	36.836	20.875	29.550	2127.0	286.17	12.6090
200	30.78200	0.0325	6338.0	37.586	20.979	29.651	2124.5	287.58	12.5340
205	30.38800	0.0329	6486.4	38.319	21.075	29.742	2122.5	289.02	12.4690
210	30.00300	0.0333	6635.4	39.037	21.164	29.826	2120.9	290.54	12.4120
215	29.62800	0.0338	6784.7	39.740	21.247	29.902	2119.7	292.01	12.3640
220	29.26200	0.0342	6934.4	40.428	21.324	29.970	2118.9	293.55	12.3230
225	28.90500	0.0346	7084.4	41.102	21.395	30.032	2118.5	295.09	12.2900
230	28.55600	0.0350	7234.7	41.763	21.460	30.088	2118.3	296.70	12.2630
235	28.21600	0.0354	7385.2	42.410	21.521	30.138	2118.5	298.31	12.2430
240	27.88400	0.0359	7536.0	43.045	21.576	30.182	2119.0	299.98	12.2280
245	27.56000	0.0363	7687.1	43.668	21.627	30.221	2119.8	301.56	12.2180
250	27.24300	0.0367	7838.3	44.279	21.673	30.256	2120.9	303.20	12.2130
255	26.93300	0.0371	7989.6	44.878	21.715	30.286	2122.1	304.82	12.2130
260	26.63100	0.0376	8141.1	45.467	21.753	30.312	2123.7	306.49	12.2170
265	26.33500	0.0380	8292.7	46.044	21.788	30.334	2125.4	308.14	12.2250
270	26.04600	0.0384	8444.4	46.611	21.819	30.353	2127.3	309.82	12.2370
275	25.76300	0.0388	8596.2	47.169	21.846	30.368	2129.5	311.42	12.2520
280	25.48700	0.0392	8748.1	47.716	21.871	30.381	2131.8	313.05	12.2710
285	25.21600	0.0397	8900.0	48.254	21.893	30.390	2134.3	314.72	12.2920
290	24.95100	0.0401	9052.0	48.782	21.912	30.397	2136.9	316.43	12.3160
295	24.69200	0.0405	9204.0	49.302	21.929	30.402	2139.8	318.03	12.3430
300	24.43800	0.0409	9356.0	49.813	21.943	30.404	2142.7	319.67	12.3720
305	24.19000	0.0413	9508.1	50.316	21.956	30.405	2145.8	321.34	12.4040
310	23.94600	0.0418	9660.1	50.810	21.966	30.403	2149.0	323.04	12.4380
315	23.70800	0.0422	9812.1	51.296	21.974	30.400	2152.3	324.63	12.4730
320	23.47500	0.0426	9964.1	51.775	21.981	30.396	2155.8	326.25	12.5110
325	23.24600	0.0430	10116.0	52.246	21.986	30.390	2159.3	328.22	12.5510
330	23.02100	0.0434	10268.0	52.710	21.990	30.382	2163.0	330.22	12.5920
335	22.80100	0.0439	10420.0	53.167	21.992	30.374	2166.7	332.18	12.6340
340	22.58500	0.0443	10572.0	53.617	21.994	30.364	2170.5	334.16	12.6780

TABLE 1 *Continued*

T (K)	ρ ($mol \cdot L^{-1}$)	V ($L^{-1} \cdot mol$)	H ($J \cdot mol^{-1}$)	S ($J \cdot mol^{-1} \cdot K^{-1}$)	C_v ($J \cdot mol^{-1} \cdot K^{-1}$)	C_p ($J \cdot mol^{-1} \cdot K^{-1}$)	c ($m \cdot s^{-1}$)	λ ($mW \cdot m^{-1} \cdot K^{-1}$)	η (μPa·s)
345	22.37400	0.0447	10724.0	54.060	21.994	30.354	2174.5	336.16	12.7240
350	22.16600	0.0451	10875.0	54.497	21.993	30.343	2178.4	338.17	12.7710
355	21.96300	0.0455	11027.0	54.927	21.991	30.331	2182.5	340.15	12.8190
360	21.76300	0.0460	11179.0	55.351	21.988	30.318	2186.6	342.14	12.8680
365	21.56700	0.0464	11330.0	55.769	21.985	30.305	2190.8	343.95	12.9180
370	21.37400	0.0468	11482.0	56.182	21.980	30.292	2195.1	345.78	12.9690
375	21.18500	0.0472	11633.0	56.588	21.976	30.278	2199.4	347.76	13.0210
380	20.99900	0.0476	11784.0	56.989	21.970	30.263	2203.8	349.76	13.0740
385	20.81700	0.0480	11936.0	57.385	21.965	30.249	2208.2	351.64	13.1280
390	20.63800	0.0485	12087.0	57.775	21.959	30.234	2212.7	353.54	13.1830
395	20.46200	0.0489	12238.0	58.160	21.952	30.219	2217.2	355.45	13.2390
400	20.28900	0.0493	12389.0	58.540	21.945	30.204	2221.7	357.37	13.2950
405	20.11900	0.0497	12540.0	58.915	21.938	30.189	2226.3	358.99	13.3520
410	19.95200	0.0501	12691.0	59.285	21.931	30.174	2230.9	360.61	13.4090
415	19.78800	0.0505	12842.0	59.651	21.924	30.159	2235.6	362.58	13.4670
420	19.62600	0.0510	12993.0	60.012	21.916	30.145	2240.3	364.56	13.5260
425	19.46700	0.0514	13143.0	60.369	21.909	30.130	2245.0	366.55	13.5850
430	19.31100	0.0518	13294.0	60.721	21.901	30.115	2249.7	368.55	13.6450
435	19.15800	0.0522	13444.0	61.069	21.894	30.101	2254.5	370.56	13.7050
440	19.00600	0.0526	13595.0	61.413	21.886	30.086	2259.3	372.59	13.7660
445	18.85800	0.0530	13745.0	61.753	21.879	30.072	2264.1	374.62	13.8270
450	18.71100	0.0534	13896.0	62.089	21.871	30.058	2269.0	376.67	13.8880
455	18.56700	0.0539	14046.0	62.421	21.864	30.045	2273.8	378.72	13.9500
460	18.42500	0.0543	14196.0	62.749	21.856	30.031	2278.7	380.79	14.0120
465	18.28600	0.0547	14346.0	63.074	21.849	30.018	2283.6	382.86	14.0750
470	18.14800	0.0551	14496.0	63.395	21.842	30.005	2288.5	384.95	14.1380
475	18.01300	0.0555	14646.0	63.712	21.835	29.993	2293.4	387.04	14.2010
480	17.88000	0.0559	14796.0	64.026	21.829	29.981	2298.3	389.14	14.2640
485	17.74800	0.0563	14946.0	64.337	21.822	29.969	2303.3	391.25	14.3280
490	17.61900	0.0568	15096.0	64.644	21.816	29.957	2308.2	393.37	14.3920
495	17.49100	0.0572	15246.0	64.948	21.809	29.946	2313.2	395.50	14.4560
500	17.36600	0.0576	15395.0	65.249	21.803	29.935	2318.2	397.63	14.5210
				200.0 MPa					
50	56.35300	0.0177	4104.4	N/A	13.966	16.672	3126.7	N/A	N/A
55	55.83400	0.0179	4190.8	0.340	14.719	17.881	3116.5	N/A	N/A
60	55.30100	0.0181	4282.9	1.941	15.323	18.903	3105.0	N/A	N/A
65	54.75900	0.0183	4379.6	3.490	15.826	19.785	3092.7	N/A	N/A
70	54.21400	0.0184	4480.5	4.985	16.260	20.564	3079.5	N/A	N/A
75	53.66700	0.0186	4585.2	6.428	16.649	21.266	3065.8	N/A	N/A
80	53.12100	0.0188	4693.1	7.822	17.008	21.910	3051.5	N/A	N/A
85	52.57800	0.0190	4804.2	9.168	17.349	22.507	3037.0	N/A	N/A
90	52.03900	0.0192	4918.1	10.470	17.675	23.068	3022.2	N/A	N/A
95	51.50600	0.0194	5034.8	11.732	17.991	23.596	3007.4	N/A	N/A
100	50.97800	0.0196	5154.0	12.955	18.298	24.095	2992.7	N/A	N/A
105	50.45800	0.0198	5275.7	14.142	18.596	24.567	2978.2	N/A	N/A
110	49.94400	0.0200	5399.7	15.295	18.884	25.014	2964.0	N/A	N/A
115	49.43800	0.0202	5525.8	16.417	19.162	25.437	2950.2	N/A	N/A
120	48.94000	0.0204	5654.0	17.508	19.429	25.835	2936.8	N/A	N/A
125	48.44900	0.0206	5784.1	18.570	19.686	26.210	2924.0	N/A	N/A
130	47.96700	0.0208	5916.1	19.605	19.930	26.562	2911.7	N/A	N/A
135	47.49300	0.0211	6049.7	20.614	20.162	26.893	2900.0	N/A	N/A
140	47.02600	0.0213	6184.9	21.597	20.382	27.202	2888.9	N/A	N/A
145	46.56800	0.0215	6321.7	22.557	20.590	27.491	2878.3	N/A	N/A
150	46.11800	0.0217	6459.8	23.494	20.785	27.761	2868.3	N/A	N/A
155	45.67600	0.0219	6599.3	24.408	20.969	28.011	2858.9	N/A	N/A
160	45.24100	0.0221	6739.9	25.301	21.141	28.245	2850.0	N/A	N/A
165	44.81500	0.0223	6881.7	26.174	21.302	28.461	2841.6	N/A	N/A
170	44.39600	0.0225	7024.5	27.026	21.452	28.661	2833.7	N/A	N/A
175	43.98400	0.0227	7168.3	27.860	21.592	28.847	2826.4	N/A	N/A
180	43.58000	0.0229	7312.9	28.675	21.722	29.019	2819.5	N/A	N/A
185	43.18300	0.0232	7458.4	29.472	21.843	29.177	2813.0	N/A	N/A
190	42.79300	0.0234	7604.7	30.252	21.954	29.323	2807.0	454.55	19.5740
195	42.41000	0.0236	7751.6	31.016	22.057	29.457	2801.4	457.26	19.5590
200	42.03400	0.0238	7899.2	31.763	22.152	29.580	2796.2	460.07	19.5160
205	41.66400	0.0240	8047.4	32.495	22.240	29.693	2791.4	462.85	19.4510
210	41.30100	0.0242	8196.1	33.212	22.320	29.796	2787.0	465.70	19.3680
215	40.94500	0.0244	8345.4	33.914	22.393	29.890	2782.9	468.42	19.2730
220	40.59400	0.0246	8495.0	34.602	22.460	29.976	2779.1	471.19	19.1670
225	40.25000	0.0248	8645.1	35.277	22.521	30.054	2775.6	473.93	19.0550
230	39.91200	0.0251	8795.6	35.938	22.577	30.125	2772.5	476.71	18.9380
235	39.57900	0.0253	8946.4	36.586	22.627	30.189	2769.6	479.45	18.8200
240	39.25200	0.0255	9097.4	37.223	22.671	30.246	2767.0	482.23	18.7000
245	38.93100	0.0257	9248.8	37.847	22.712	30.297	2764.6	484.83	18.5810
250	38.61500	0.0259	9400.4	38.459	22.747	30.343	2762.5	487.49	18.4630

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
255	38.30400	0.0261	9552.2	39.061	22.779	30.384	2760.7	490.07	18.3480
260	37.99800	0.0263	9704.2	39.651	22.806	30.419	2759.0	492.69	18.2370
265	37.69800	0.0265	9856.4	40.231	22.830	30.450	2757.6	495.23	18.1280
270	37.40200	0.0267	10009.0	40.800	22.851	30.477	2756.4	497.81	18.0240
275	37.11100	0.0269	10161.0	41.360	22.868	30.500	2755.4	500.20	17.9250
280	36.82500	0.0272	10314.0	41.909	22.883	30.520	2754.6	502.62	17.8290
285	36.54300	0.0274	10466.0	42.450	22.894	30.536	2753.9	505.07	17.7390
290	36.26600	0.0276	10619.0	42.981	22.903	30.549	2753.4	507.54	17.6530
295	35.99300	0.0278	10772.0	43.503	22.910	30.559	2753.1	509.83	17.5720
300	35.72400	0.0280	10925.0	44.017	22.914	30.566	2753.0	512.13	17.4960
305	35.46000	0.0282	11078.0	44.522	22.917	30.571	2753.0	514.46	17.4240
310	35.19900	0.0284	11230.0	45.019	22.917	30.574	2753.1	516.81	17.3570
315	34.94300	0.0286	11383.0	45.509	22.916	30.574	2753.4	518.96	17.2940
320	34.69000	0.0288	11536.0	45.990	22.913	30.573	2753.8	521.13	17.2360
325	34.44100	0.0290	11689.0	46.464	22.909	30.570	2754.4	523.85	17.1820
330	34.19600	0.0292	11842.0	46.931	22.904	30.565	2755.0	526.59	17.1330
335	33.95500	0.0295	11995.0	47.390	22.897	30.559	2755.8	529.23	17.0870
340	33.71700	0.0297	12147.0	47.843	22.889	30.552	2756.7	531.89	17.0450
345	33.48200	0.0299	12300.0	48.289	22.880	30.543	2757.7	534.56	17.0070
350	33.25100	0.0301	12453.0	48.728	22.870	30.533	2758.8	537.24	16.9730
355	33.02300	0.0303	12605.0	49.161	22.860	30.523	2759.9	539.83	16.9420
360	32.79900	0.0305	12758.0	49.588	22.849	30.511	2761.2	542.43	16.9150
365	32.57700	0.0307	12911.0	50.009	22.837	30.499	2762.6	544.73	16.8910
370	32.35900	0.0309	13063.0	50.424	22.824	30.487	2764.0	547.04	16.8700
375	32.14400	0.0311	13215.0	50.833	22.811	30.473	2765.6	549.57	16.8520
380	31.93100	0.0313	13368.0	51.236	22.798	30.459	2767.2	552.11	16.8370
385	31.72200	0.0315	13520.0	51.635	22.785	30.445	2768.9	554.45	16.8240
390	31.51500	0.0317	13672.0	52.027	22.771	30.431	2770.6	556.80	16.8150
395	31.31100	0.0319	13824.0	52.415	22.757	30.416	2772.5	559.15	16.8080
400	31.11000	0.0321	13976.0	52.797	22.742	30.401	2774.4	561.52	16.8030
405	30.91200	0.0324	14128.0	53.175	22.728	30.385	2776.3	563.39	16.8010
410	30.71600	0.0326	14280.0	53.548	22.713	30.370	2778.3	565.26	16.8010
415	30.52300	0.0328	14432.0	53.916	22.699	30.355	2780.4	567.65	16.8040
420	30.33200	0.0330	14584.0	54.279	22.684	30.339	2782.6	570.06	16.8080
425	30.14400	0.0332	14735.0	54.638	22.670	30.324	2784.7	572.46	16.8150
430	29.95800	0.0334	14887.0	54.993	22.655	30.308	2787.0	574.88	16.8230
435	29.77400	0.0336	15039.0	55.343	22.641	30.293	2789.3	577.30	16.8330
440	29.59300	0.0338	15190.0	55.689	22.627	30.278	2791.6	579.72	16.8450
445	29.41400	0.0340	15341.0	56.031	22.613	30.263	2794.0	582.15	16.8590
450	29.23700	0.0342	15493.0	56.369	22.599	30.248	2796.4	584.59	16.8740
455	29.06300	0.0344	15644.0	56.703	22.585	30.233	2798.9	587.04	16.8910
460	28.89000	0.0346	15795.0	57.034	22.571	30.218	2801.4	589.48	16.9100
465	28.72000	0.0348	15946.0	57.360	22.558	30.204	2803.9	591.94	16.9300
470	28.55200	0.0350	16097.0	57.683	22.545	30.190	2806.5	594.40	16.9510
475	28.38600	0.0352	16248.0	58.003	22.532	30.176	2809.1	596.86	16.9740
480	28.22100	0.0354	16399.0	58.319	22.520	30.163	2811.8	599.33	16.9980
485	28.05900	0.0356	16549.0	58.631	22.507	30.149	2814.5	601.80	17.0230
490	27.89900	0.0358	16700.0	58.940	22.495	30.136	2817.2	604.27	17.0500
495	27.74000	0.0360	16851.0	59.246	22.483	30.124	2820.0	606.75	17.0770
500	27.58400	0.0363	17001.0	59.549	22.472	30.111	2822.7	609.24	17.1060
				300.0 MPa					
60	60.63200	0.0165	5833.5	N/A	14.937	17.594	3588.6	N/A	N/A
65	60.19700	0.0166	5924.1	0.536	15.630	18.634	3577.4	N/A	N/A
70	59.75400	0.0167	6019.6	1.951	16.222	19.544	3565.3	N/A	N/A
75	59.30500	0.0169	6119.4	3.328	16.741	20.358	3552.5	N/A	N/A
80	58.85400	0.0170	6223.1	4.666	17.210	21.097	3539.1	N/A	N/A
85	58.40200	0.0171	6330.3	5.965	17.642	21.778	3525.2	N/A	N/A
90	57.95000	0.0173	6440.8	7.228	18.046	22.411	3511.1	N/A	N/A
95	57.50000	0.0174	6554.3	8.456	18.429	23.004	3496.8	N/A	N/A
100	57.05300	0.0175	6670.7	9.650	18.792	23.562	3482.5	N/A	N/A
105	56.60800	0.0177	6789.9	10.813	19.138	24.087	3468.3	N/A	N/A
110	56.16700	0.0178	6911.6	11.945	19.468	24.583	3454.3	N/A	N/A
115	55.73100	0.0179	7035.7	13.048	19.782	25.050	3440.6	N/A	N/A
120	55.29800	0.0181	7162.0	14.123	20.080	25.489	3427.2	N/A	N/A
125	54.87100	0.0182	7290.5	15.172	20.362	25.902	3414.3	N/A	N/A
130	54.44900	0.0184	7421.0	16.196	20.629	26.290	3401.8	N/A	N/A
135	54.03100	0.0185	7553.4	17.195	20.880	26.653	3389.7	N/A	N/A
140	53.61900	0.0187	7687.5	18.171	21.116	26.993	3378.2	N/A	N/A
145	53.21200	0.0188	7823.2	19.123	21.338	27.311	3367.2	N/A	N/A
150	52.81100	0.0189	7960.6	20.054	21.545	27.607	3356.7	N/A	N/A
155	52.41500	0.0191	8099.3	20.964	21.738	27.883	3346.6	N/A	N/A
160	52.02400	0.0192	8239.3	21.853	21.918	28.139	3337.1	N/A	N/A
165	51.63900	0.0194	8380.6	22.723	22.086	28.378	3328.0	N/A	N/A
170	51.25900	0.0195	8523.1	23.573	22.241	28.599	3319.4	N/A	N/A

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
175	50.88500	0.0197	8666.6	24.405	22.385	28.804	3311.3	N/A	N/A
180	50.51600	0.0198	8811.1	25.220	22.517	28.994	3303.6	N/A	N/A
185	50.15200	0.0199	8956.5	26.016	22.640	29.169	3296.3	N/A	N/A
190	49.79300	0.0201	9102.8	26.796	22.752	29.330	3289.5	N/A	N/A
195	49.44000	0.0202	9249.8	27.560	22.856	29.479	3283.0	N/A	N/A
200	49.09100	0.0204	9397.5	28.308	22.950	29.616	3276.9	N/A	N/A
205	48.74800	0.0205	9546.0	29.041	23.037	29.742	3271.1	N/A	N/A
210	48.40900	0.0207	9695.0	29.759	23.115	29.858	3265.7	N/A	N/A
215	48.07500	0.0208	9844.5	30.463	23.187	29.963	3260.6	N/A	N/A
220	47.74600	0.0209	9994.6	31.153	23.251	30.059	3255.9	N/A	N/A
225	47.42200	0.0211	10145.0	31.830	23.310	30.147	3251.4	N/A	N/A
230	47.10200	0.0212	10296.0	32.493	23.362	30.227	3247.2	N/A	N/A
235	46.78700	0.0214	10447.0	33.144	23.408	30.299	3243.3	N/A	N/A
240	46.47600	0.0215	10599.0	33.783	23.449	30.364	3239.7	N/A	N/A
245	46.17000	0.0217	10751.0	34.409	23.486	30.422	3236.3	N/A	N/A
250	45.86800	0.0218	10903.0	35.024	23.517	30.474	3233.1	N/A	N/A
255	45.57000	0.0219	11056.0	35.628	23.545	30.521	3230.2	N/A	N/A
260	45.27600	0.0221	11208.0	36.221	23.568	30.562	3227.5	N/A	N/A
265	44.98600	0.0222	11361.0	36.804	23.587	30.598	3225.0	N/A	N/A
270	44.70100	0.0224	11514.0	37.376	23.603	30.629	3222.7	N/A	N/A
275	44.41900	0.0225	11668.0	37.938	23.616	30.657	3220.6	N/A	N/A
280	44.14000	0.0227	11821.0	38.491	23.626	30.680	3218.7	N/A	N/A
285	43.86600	0.0228	11974.0	39.034	23.632	30.699	3216.9	N/A	N/A
290	43.59500	0.0229	12128.0	39.568	23.636	30.715	3215.4	N/A	N/A
295	43.32800	0.0231	12282.0	40.093	23.638	30.728	3214.0	N/A	N/A
300	43.06500	0.0232	12435.0	40.610	23.638	30.737	3212.7	N/A	N/A
305	42.80500	0.0234	12589.0	41.118	23.635	30.744	3211.6	699.12	22.0890
310	42.54800	0.0235	12743.0	41.618	23.630	30.749	3210.6	702.42	22.1050
315	42.29400	0.0236	12896.0	42.110	23.624	30.751	3209.7	705.43	22.1070
320	42.04400	0.0238	13050.0	42.594	23.616	30.751	3209.0	708.46	22.0990
325	41.79700	0.0239	13204.0	43.071	23.607	30.749	3208.4	712.21	22.0800
330	41.55300	0.0241	13358.0	43.541	23.597	30.745	3207.9	715.97	22.0520
335	41.31200	0.0242	13511.0	44.003	23.585	30.740	3207.6	719.58	22.0180
340	41.07500	0.0243	13665.0	44.458	23.572	30.733	3207.3	723.20	21.9780
345	40.84000	0.0245	13819.0	44.907	23.558	30.725	3207.2	726.82	21.9330
350	40.60800	0.0246	13972.0	45.349	23.543	30.715	3207.1	730.44	21.8840
355	40.37900	0.0248	14126.0	45.784	23.528	30.705	3207.2	733.92	21.8320
360	40.15200	0.0249	14279.0	46.214	23.512	30.693	3207.3	737.40	21.7780
365	39.92900	0.0250	14433.0	46.637	23.495	30.681	3207.5	740.46	21.7220
370	39.70800	0.0252	14586.0	47.054	23.478	30.668	3207.8	743.52	21.6660
375	39.48900	0.0253	14739.0	47.466	23.460	30.654	3208.2	746.86	21.6080
380	39.27400	0.0255	14893.0	47.872	23.442	30.639	3208.6	750.21	21.5500
385	39.06000	0.0256	15046.0	48.272	23.424	30.625	3209.2	753.27	21.4930
390	38.85000	0.0257	15199.0	48.667	23.405	30.609	3209.8	756.33	21.4360
395	38.64100	0.0259	15352.0	49.057	23.386	30.594	3210.4	759.39	21.3800
400	38.43500	0.0260	15505.0	49.442	23.367	30.578	3211.2	762.46	21.3250
405	38.23200	0.0262	15658.0	49.822	23.348	30.561	3212.0	764.83	21.2710
410	38.03100	0.0263	15810.0	50.197	23.329	30.545	3212.8	767.20	21.2190
415	37.83200	0.0264	15963.0	50.567	23.310	30.528	3213.8	770.26	21.1680
420	37.63500	0.0266	16116.0	50.932	23.291	30.512	3214.7	773.33	21.1190
425	37.44000	0.0267	16268.0	51.293	23.273	30.495	3215.8	776.39	21.0720
430	37.24800	0.0268	16421.0	51.650	23.254	30.478	3216.9	779.45	21.0260
435	37.05800	0.0270	16573.0	52.002	23.235	30.462	3218.0	782.51	20.9820
440	36.86900	0.0271	16725.0	52.350	23.217	30.445	3219.2	785.57	20.9410
445	36.68300	0.0273	16877.0	52.694	23.198	30.429	3220.4	788.63	20.9010
450	36.49900	0.0274	17030.0	53.034	23.180	30.412	3221.7	791.68	20.8630
455	36.31700	0.0275	17182.0	53.370	23.162	30.396	3223.0	794.74	20.8280
460	36.13700	0.0277	17334.0	53.702	23.145	30.380	3224.3	797.79	20.7940
465	35.95800	0.0278	17485.0	54.030	23.127	30.364	3225.7	800.84	20.7620
470	35.78200	0.0279	17637.0	54.355	23.110	30.349	3227.2	803.88	20.7320
475	35.60700	0.0281	17789.0	54.676	23.093	30.333	3228.7	806.93	20.7050
480	35.43400	0.0282	17941.0	54.994	23.077	30.318	3230.2	809.97	20.6790
485	35.26300	0.0284	18092.0	55.308	23.061	30.304	3231.7	813.01	20.6550
490	35.09400	0.0285	18244.0	55.618	23.045	30.289	3233.3	816.05	20.6330
495	34.92600	0.0286	18395.0	55.926	23.029	30.275	3234.9	819.08	20.6130
500	34.76000	0.0288	18546.0	56.230	23.014	30.261	3236.6	822.12	20.5950
				400.0 MPa					
70	63.90400	0.0156	7484.8	-0.200	16.004	18.684	3962.9	N/A	N/A
75	63.52100	0.0157	7580.5	1.121	16.642	19.598	3950.5	N/A	N/A
80	63.13300	0.0158	7680.6	2.412	17.210	20.422	3937.5	N/A	N/A
85	62.74200	0.0159	7784.6	3.673	17.726	21.176	3924.0	N/A	N/A
90	62.35000	0.0160	7892.3	4.904	18.202	21.873	3910.1	N/A	N/A
95	61.95700	0.0161	8003.3	6.104	18.646	22.522	3896.0	N/A	N/A
100	61.56400	0.0162	8117.4	7.275	19.062	23.129	3881.7	N/A	N/A

TABLE 1 *Continued*

T (K)	ρ ($mol \cdot L^{-1}$)	V ($L^{-1} \cdot mol$)	H ($J \cdot mol^{-1}$)	S ($J \cdot mol^{-1} \cdot K^{-1}$)	C_v ($J \cdot mol^{-1} \cdot K^{-1}$)	C_p ($J \cdot mol^{-1} \cdot K^{-1}$)	c ($m \cdot s^{-1}$)	λ ($mW \cdot m^{-1} \cdot K^{-1}$)	η (μPa·s)
105	61.17200	0.0163	8234.5	8.417	19.454	23.698	3867.5	N/A	N/A
110	60.78200	0.0165	8354.4	9.532	19.823	24.233	3853.5	N/A	N/A
115	60.39400	0.0166	8476.8	10.620	20.171	24.736	3839.6	N/A	N/A
120	60.00900	0.0167	8601.7	11.683	20.499	25.208	3826.1	N/A	N/A
125	59.62700	0.0168	8728.8	12.721	20.808	25.651	3812.8	N/A	N/A
130	59.24800	0.0169	8858.1	13.736	21.097	26.067	3800.0	N/A	N/A
135	58.87300	0.0170	8989.4	14.727	21.369	26.456	3787.6	N/A	N/A
140	58.50100	0.0171	9122.6	15.695	21.623	26.820	3775.6	N/A	N/A
145	58.13200	0.0172	9257.6	16.643	21.859	27.160	3764.0	N/A	N/A
150	57.76700	0.0173	9394.2	17.569	22.080	27.478	3752.9	N/A	N/A
155	57.40700	0.0174	9532.3	18.475	22.285	27.773	3742.3	N/A	N/A
160	57.05000	0.0175	9671.9	19.361	22.475	28.049	3732.1	N/A	N/A
165	56.69700	0.0176	9812.8	20.228	22.651	28.305	3722.4	N/A	N/A
170	56.34800	0.0177	9954.9	21.076	22.814	28.543	3713.1	N/A	N/A
175	56.00300	0.0179	10098.0	21.907	22.964	28.763	3704.2	N/A	N/A
180	55.66200	0.0180	10243.0	22.720	23.102	28.968	3695.8	N/A	N/A
185	55.32500	0.0181	10388.0	23.517	23.229	29.157	3687.8	N/A	N/A
190	54.99200	0.0182	10534.0	24.297	23.345	29.332	3680.1	N/A	N/A
195	54.66200	0.0183	10681.0	25.061	23.452	29.494	3672.8	N/A	N/A
200	54.33700	0.0184	10829.0	25.809	23.549	29.643	3665.9	N/A	N/A
205	54.01600	0.0185	10978.0	26.543	23.637	29.780	3659.4	N/A	N/A
210	53.69800	0.0186	11127.0	27.262	23.717	29.906	3653.2	N/A	N/A
215	53.38500	0.0187	11277.0	27.967	23.789	30.021	3647.3	N/A	N/A
220	53.07500	0.0188	11427.0	28.658	23.854	30.127	3641.7	N/A	N/A
225	52.76900	0.0190	11578.0	29.337	23.912	30.224	3636.5	N/A	N/A
230	52.46600	0.0191	11729.0	30.002	23.964	30.312	3631.5	N/A	N/A
235	52.16800	0.0192	11881.0	30.655	24.010	30.392	3626.8	N/A	N/A
240	51.87200	0.0193	12033.0	31.295	24.051	30.464	3622.4	N/A	N/A
245	51.58100	0.0194	12186.0	31.924	24.086	30.529	3618.2	N/A	N/A
250	51.29300	0.0195	12338.0	32.541	24.116	30.588	3614.2	N/A	N/A
255	51.00800	0.0196	12491.0	33.148	24.142	30.641	3610.5	N/A	N/A
260	50.72700	0.0197	12645.0	33.743	24.163	30.688	3607.1	N/A	N/A
265	50.44900	0.0198	12798.0	34.328	24.181	30.729	3603.8	N/A	N/A
270	50.17400	0.0199	12952.0	34.903	24.195	30.766	3600.8	N/A	N/A
275	49.90300	0.0200	13106.0	35.468	24.205	30.798	3597.9	N/A	N/A
280	49.63500	0.0201	13260.0	36.023	24.212	30.825	3595.2	N/A	N/A
285	49.37000	0.0203	13414.0	36.569	24.217	30.849	3592.8	N/A	N/A
290	49.10800	0.0204	13569.0	37.105	24.218	30.868	3590.4	N/A	N/A
295	48.84900	0.0205	13723.0	37.633	24.217	30.884	3588.3	N/A	N/A
300	48.59300	0.0206	13877.0	38.152	24.214	30.897	3586.3	N/A	N/A
305	48.34000	0.0207	14032.0	38.663	24.209	30.907	3584.5	N/A	N/A
310	48.09000	0.0208	14186.0	39.166	24.201	30.914	3582.8	N/A	N/A
315	47.84300	0.0209	14341.0	39.660	24.192	30.919	3581.2	N/A	N/A
320	47.59800	0.0210	14496.0	40.147	24.181	30.921	3579.8	N/A	N/A
325	47.35700	0.0211	14650.0	40.627	24.169	30.921	3578.5	N/A	N/A
330	47.11800	0.0212	14805.0	41.099	24.155	30.919	3577.4	N/A	N/A
335	46.88200	0.0213	14959.0	41.564	24.141	30.915	3576.3	N/A	N/A
340	46.64800	0.0214	15114.0	42.022	24.125	30.910	3575.4	N/A	N/A
345	46.41700	0.0215	15268.0	42.473	24.108	30.903	3574.5	N/A	N/A
350	46.18800	0.0217	15423.0	42.918	24.090	30.894	3573.8	N/A	N/A
355	45.96200	0.0218	15577.0	43.356	24.071	30.884	3573.2	N/A	N/A
360	45.73900	0.0219	15732.0	43.788	24.052	30.874	3572.7	N/A	N/A
365	45.51800	0.0220	15886.0	44.213	24.032	30.862	3572.2	N/A	N/A
370	45.29900	0.0221	16040.0	44.633	24.012	30.849	3571.9	N/A	N/A
375	45.08200	0.0222	16195.0	45.047	23.991	30.836	3571.6	N/A	N/A
380	44.86800	0.0223	16349.0	45.456	23.970	30.821	3571.4	N/A	N/A
385	44.65600	0.0224	16503.0	45.858	23.948	30.807	3571.3	N/A	N/A
390	44.44700	0.0225	16657.0	46.256	23.927	30.791	3571.2	N/A	N/A
395	44.23900	0.0226	16811.0	46.648	23.905	30.775	3571.3	N/A	N/A
400	44.03400	0.0227	16965.0	47.035	23.883	30.759	3571.3	N/A	N/A
405	43.83000	0.0228	17118.0	47.417	23.861	30.743	3571.5	N/A	N/A
410	43.62900	0.0229	17272.0	47.794	23.839	30.726	3571.7	N/A	N/A
415	43.43000	0.0230	17426.0	48.166	23.817	30.709	3572.0	N/A	N/A
420	43.23300	0.0231	17579.0	48.534	23.795	30.691	3572.4	N/A	N/A
425	43.03800	0.0232	17733.0	48.897	23.773	30.674	3572.8	N/A	N/A
430	42.84500	0.0233	17886.0	49.256	23.751	30.657	3573.2	984.66	24.4860
435	42.65300	0.0234	18039.0	49.610	23.729	30.639	3573.7	988.49	24.5160
440	42.46400	0.0235	18192.0	49.960	23.708	30.622	3574.3	992.30	24.5380
445	42.27600	0.0237	18345.0	50.306	23.686	30.604	3574.9	996.10	24.5530
450	42.09100	0.0238	18498.0	50.648	23.665	30.587	3575.5	999.90	24.5620
455	41.90700	0.0239	18651.0	50.986	23.645	30.570	3576.2	1003.70	24.5650
460	41.72400	0.0240	18804.0	51.320	23.624	30.553	3576.9	1007.50	24.5630
465	41.54400	0.0241	18957.0	51.650	23.604	30.536	3577.7	1011.20	24.5570
470	41.36500	0.0242	19109.0	51.977	23.584	30.519	3578.5	1015.00	24.5460

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
475	41.18800	0.0243	19262.0	52.299	23.564	30.503	3579.4	1018.70	24.5330
480	41.01300	0.0244	19414.0	52.619	23.545	30.486	3580.2	1022.50	24.5160
485	40.83900	0.0245	19567.0	52.935	23.526	30.470	3581.2	1026.20	24.4970
490	40.66700	0.0246	19719.0	53.247	23.507	30.455	3582.1	1029.90	24.4760
495	40.49600	0.0247	19871.0	53.556	23.489	30.439	3583.1	1033.60	24.4530
500	40.32700	0.0248	20023.0	53.862	23.471	30.424	3584.2	1037.30	24.4280
				500.0 MPa					
80	66.57700	0.0150	9082.4	0.673	17.098	19.818	4282.3	N/A	N/A
85	66.23100	0.0151	9183.6	1.900	17.692	20.638	4269.1	N/A	N/A
90	65.88300	0.0152	9288.7	3.101	18.235	21.393	4255.4	N/A	N/A
95	65.53200	0.0153	9397.5	4.277	18.736	22.092	4241.4	N/A	N/A
100	65.18100	0.0153	9509.6	5.427	19.202	22.743	4227.3	N/A	N/A
105	64.82900	0.0154	9624.8	6.551	19.637	23.351	4213.1	N/A	N/A
110	64.47800	0.0155	9743.0	7.651	20.044	23.920	4199.0	N/A	N/A
115	64.12800	0.0156	9864.0	8.726	20.425	24.454	4185.0	N/A	N/A
120	63.77900	0.0157	9987.5	9.777	20.782	24.955	4171.3	N/A	N/A
125	63.43200	0.0158	10113.0	10.805	21.116	25.423	4157.8	N/A	N/A
130	63.08700	0.0159	10242.0	11.811	21.428	25.862	4144.7	N/A	N/A
135	62.74400	0.0159	10372.0	12.795	21.720	26.273	4131.9	N/A	N/A
140	62.40400	0.0160	10504.0	13.758	21.991	26.657	4119.5	N/A	N/A
145	62.06600	0.0161	10639.0	14.699	22.243	27.016	4107.5	N/A	N/A
150	61.73100	0.0162	10774.0	15.621	22.478	27.350	4095.9	N/A	N/A
155	61.39900	0.0163	10912.0	16.523	22.695	27.662	4084.7	N/A	N/A
160	61.06900	0.0164	11051.0	17.406	22.896	27.953	4074.0	N/A	N/A
165	60.74300	0.0165	11192.0	18.270	23.081	28.223	4063.6	N/A	N/A
170	60.42000	0.0166	11333.0	19.116	23.253	28.475	4053.7	N/A	N/A
175	60.09900	0.0166	11476.0	19.945	23.410	28.708	4044.2	N/A	N/A
180	59.78200	0.0167	11620.0	20.757	23.555	28.925	4035.0	N/A	N/A
185	59.46800	0.0168	11765.0	21.552	23.688	29.126	4026.3	N/A	N/A
190	59.15600	0.0169	11912.0	22.332	23.809	29.312	4017.9	N/A	N/A
195	58.84800	0.0170	12059.0	23.095	23.920	29.484	4009.9	N/A	N/A
200	58.54300	0.0171	12206.0	23.844	24.021	29.643	4002.3	N/A	N/A
205	58.24200	0.0172	12355.0	24.578	24.112	29.789	3995.0	N/A	N/A
210	57.94300	0.0173	12504.0	25.297	24.195	29.924	3988.0	N/A	N/A
215	57.64700	0.0173	12654.0	26.003	24.269	30.049	3981.4	N/A	N/A
220	57.35400	0.0174	12805.0	26.695	24.336	30.163	3975.1	N/A	N/A
225	57.06500	0.0175	12956.0	27.374	24.396	30.267	3969.0	N/A	N/A
230	56.77800	0.0176	13107.0	28.040	24.449	30.363	3963.3	N/A	N/A
235	56.49500	0.0177	13259.0	28.694	24.496	30.450	3957.8	N/A	N/A
240	56.21400	0.0178	13412.0	29.336	24.537	30.530	3952.6	N/A	N/A
245	55.93600	0.0179	13565.0	29.966	24.572	30.602	3947.7	N/A	N/A
250	55.66200	0.0180	13718.0	30.585	24.603	30.667	3943.0	N/A	N/A
255	55.39000	0.0181	13871.0	31.193	24.628	30.725	3938.6	N/A	N/A
260	55.12100	0.0181	14025.0	31.790	24.649	30.778	3934.3	N/A	N/A
265	54.85400	0.0182	14179.0	32.377	24.666	30.825	3930.4	N/A	N/A
270	54.59100	0.0183	14333.0	32.953	24.680	30.867	3926.6	N/A	N/A
275	54.33000	0.0184	14488.0	33.520	24.689	30.903	3923.0	N/A	N/A
280	54.07200	0.0185	14642.0	34.077	24.696	30.935	3919.6	N/A	N/A
285	53.81700	0.0186	14797.0	34.625	24.699	30.963	3916.4	N/A	N/A
290	53.56400	0.0187	14952.0	35.164	24.699	30.987	3913.4	N/A	N/A
295	53.31400	0.0188	15107.0	35.694	24.697	31.007	3910.6	N/A	N/A
300	53.06600	0.0188	15262.0	36.215	24.692	31.024	3907.9	N/A	N/A
305	52.82100	0.0189	15417.0	36.728	24.685	31.037	3905.4	N/A	N/A
310	52.57900	0.0190	15572.0	37.233	24.676	31.048	3903.1	N/A	N/A
315	52.33900	0.0191	15728.0	37.730	24.666	31.055	3900.9	N/A	N/A
320	52.10100	0.0192	15883.0	38.219	24.653	31.060	3898.9	N/A	N/A
325	51.86600	0.0193	16038.0	38.700	24.639	31.063	3896.9	N/A	N/A
330	51.63300	0.0194	16194.0	39.174	24.624	31.064	3895.2	N/A	N/A
335	51.40300	0.0195	16349.0	39.642	24.607	31.062	3893.5	N/A	N/A
340	51.17500	0.0195	16504.0	40.102	24.589	31.059	3892.0	N/A	N/A
345	50.94900	0.0196	16660.0	40.555	24.570	31.054	3890.5	N/A	N/A
350	50.72500	0.0197	16815.0	41.002	24.550	31.047	3889.2	N/A	N/A
355	50.50400	0.0198	16970.0	41.442	24.530	31.040	3888.0	N/A	N/A
360	50.28500	0.0199	17125.0	41.876	24.508	31.030	3886.9	N/A	N/A
365	50.06700	0.0200	17280.0	42.304	24.486	31.020	3885.9	N/A	N/A
370	49.85200	0.0201	17435.0	42.726	24.464	31.009	3885.0	N/A	N/A
375	49.63900	0.0201	17590.0	43.142	24.441	30.996	3884.2	N/A	N/A
380	49.42900	0.0202	17745.0	43.553	24.418	30.983	3883.4	N/A	N/A
385	49.22000	0.0203	17900.0	43.958	24.394	30.969	3882.8	N/A	N/A
390	49.01300	0.0204	18055.0	44.357	24.370	30.955	3882.2	N/A	N/A
395	48.80800	0.0205	18210.0	44.752	24.346	30.940	3881.7	N/A	N/A
400	48.60500	0.0206	18364.0	45.141	24.322	30.924	3881.3	N/A	N/A
405	48.40400	0.0207	18519.0	45.525	24.298	30.908	3881.0	N/A	N/A
410	48.20500	0.0207	18673.0	45.904	24.274	30.892	3880.7	N/A	N/A

TABLE 1 *Continued*

T (K)	ρ (mol·L^{-1})	V (L^{-1}·mol)	H (J·mol^{-1})	S (J·mol^{-1}·K^{-1})	C_v (J·mol^{-1}·K^{-1})	C_p (J·mol^{-1}·K^{-1})	c (m·s^{-1})	λ (mW·m^{-1}·K^{-1})	η (μPa·s)
415	48.00700	0.0208	18828.0	46.278	24.249	30.875	3880.5	N/A	N/A
420	47.81200	0.0209	18982.0	46.648	24.225	30.858	3880.3	N/A	N/A
425	47.61800	0.0210	19136.0	47.013	24.201	30.841	3880.2	N/A	N/A
430	47.42600	0.0211	19291.0	47.374	24.177	30.824	3880.2	N/A	N/A
435	47.23600	0.0212	19445.0	47.730	24.153	30.807	3880.2	N/A	N/A
440	47.04700	0.0213	19599.0	48.082	24.130	30.789	3880.3	N/A	N/A
445	46.86100	0.0213	19753.0	48.430	24.106	30.772	3880.4	N/A	N/A
450	46.67500	0.0214	19906.0	48.773	24.083	30.754	3880.6	N/A	N/A
455	46.49200	0.0215	20060.0	49.113	24.060	30.737	3880.9	N/A	N/A
460	46.31000	0.0216	20214.0	49.449	24.037	30.719	3881.1	N/A	N/A
465	46.13000	0.0217	20367.0	49.781	24.015	30.702	3881.5	N/A	N/A
470	45.95100	0.0218	20521.0	50.109	23.993	30.685	3881.8	N/A	N/A
475	45.77400	0.0218	20674.0	50.434	23.971	30.668	3882.2	N/A	N/A
480	45.59800	0.0219	20828.0	50.755	23.950	30.651	3882.7	N/A	N/A
485	45.42400	0.0220	20981.0	51.072	23.928	30.635	3883.2	N/A	N/A
490	45.25200	0.0221	21134.0	51.387	23.908	30.618	3883.7	N/A	N/A
495	45.08100	0.0222	21287.0	51.697	23.887	30.602	3884.2	N/A	N/A
500	44.91100	0.0223	21440.0	52.005	23.867	30.586	3884.8	N/A	N/A

where:

T = temperature (K)
ρ = molar density (mol·L^{-1})
V = molar volume (L^{-1}·mol)
H = molar enthalpy (J·mol^{-1})
S = molar entropy (J·K^{-1}·mol^{-1})
C_v = constant volume molar heat capacity (J·K^{-1}·mol^{-1})
C_p = constant pressure molar heat capacity (J·K^{-1}·mol^{-1})
c = speed of sound (m·s^{-1})
λ = thermal conductivity (mW·m^{-1}·K^{-1})
η = viscosity (μPa·s)