## D.2 WATER-STEAM PROPERTY DATA

## D.2.1 SUB-COOLED AND SUPERHEATED CONDITIONS

Abs. Press. (bar)	$\begin{array}{c} \text{Temperature} \\ (^{\circ}C) \end{array}$	Density (kg/m <sup>3</sup> )	Sp. Enthalpy (kJ/kg)	Dyn. Visc. $(\mu Pa \cdot s)$	Sp. Heat (kJ/kg K)	Th. Cond. (W/kg K)	Sp. Entropy (kJ/kg K)
1	50	988.047	209.412	546.852	4.17956	0.64051	0.70375
1	70	977.779	293.074	403.900	4.18810	0.65961	0.95495
1	90	965.318	376.992	314.413	4.20502	0.67302	1.19263
1	95	961.894	398.030	297.286	4.21057	0.67555	1.25017
1	$99.6059^f$	958.637	417.436	282.947	4.21615	0.67759	1.30256
1	99.6059 <sup>g</sup>	0.59031	2674.95	12.2561	2.07594	0.02475	7.35881
1	105	0.58124	2686.09	12.4568	2.05460	0.02514	7.38847
1	110	0.57313	2696.32	12.6444	2.03992	0.02551	7.41536
1	130	0.54309	2736.72	13.4059	2.00391	0.02710	7.51814
1	150	0.51634	2776.59	14.1830	1.98566	0.02880	7.61467
10	130	935.211	546.882	213.084	4.26285	0.68525	1.63392
10	150	917.304	632.575	182.593	4.30857	0.68421	1.84137
10	170	897.586	719.320	159.605	4.36867	0.67886	2.04166
10	175	892.358	741.207	154.727	4.38647	0.67686	2.09077
10	$179.886^{f}$	887.127	762.683	150.248	4.40511	0.67465	2.13843
10	$179.886^g$	5.14539	2777.12	15.0220	2.71498	0.03540	6.58498
10	185	5.06580	2790.70	15.2439	2.60350	0.03549	6.61479
10	190	4.99205	2803.52	15.4608	2.52852	0.03564	6.64262
10	210	4.72720	2852.20	16.3254	2.36144	0.03662	6.74555
10	230	4.49848	2898.45	17.1867	2.27017	0.03803	6.83935
20	165	903.304	698.085	165.047	4.34830	0.68132	1.99095
20	185	882.210	785.746	146.059	4.42128	0.67287	2.18657
20	205	858.983	875.096	130.947	4.51844	0.66021	2.37744
20	210	852.803	897.760	127.628	4.54761	0.65637	2.42460
20	$212.385^{f}$	849.798	908.622	126.107	4.56234	0.65444	2.44702
20	$212.385^g$	10.0421	2798.38	16.1449	3.19036	0.04165	6.33916
20	215	9.95172	2806.59	16.2653	3.09115	0.04156	6.35603
20	220	9.78788	2821.67	16.4955	2.94874	0.04146	6.38676
20	240	9.21758	2877.21	17.4060	2.64811	0.04178	6.49719
20	260	8.74124	2928.47	18.3042	2.49094	0.04280	6.59522
30	185	882.895	786.231	146.307	4.41656	0.67368	2.18516
30	205	859.771	875.472	131.199	4.51220	0.66112	2.37580
30	225	834.169	966.942	118.797	4.64161	0.64424	2.56319
30	230	827.319	990.247	116.016	4.68102	0.63931	2.60974
30	$233.858^f$	821.895	1008.37	113.947	4.71380	0.63530	2.64562
30	$233.858^{g}$	15.0006	2803.26	16.9033	3.61228	0.04670	6.18579
30	235	14.9339	2807.35	16.9578	3.55258	0.04660	6.19384
30	240	14.6569	2824.56	17.1974	3.34354	0.04628	6.22755
30	260	13.7196	2886.42	18.1401	2.90697	0.04594	6.34585
30	280	12.9607	2942.16	19.0637	2.68542	0.04660	6.44851
50	215	848.994	921.516	125.226	4.55759	0.65517	2.46625
50	235	822.272	1014.05	113.872	4.70373	0.63636	2.65202
50	255	792.192	1110.06	104.056	4.91017	0.61276	2.83731
50	260	784.020	1134.77	101.771	4.97552	0.60602	2.88388
50	263.943 <sup>f</sup>	777.360	1154.50	100.008	5.03218	0.60046	2.92075
50	263.943 <sup>g</sup>	25.3509	2794.23	18.0327	4.43784	0.05564	5.97370
50	265	25.2219	2798.88	18.0857	4.35703	0.05545	5.98235
50	270	24.6503	2819.84	18.3371	4.04602	0.05469	6.02113
50	290	22.8018	2893.00	19.3191	3.36622	0.05318	6.15348
50	310	21.3827	2956.58	20.2736	3.02176	0.05315	6.26445

Abs. Press. (bar)	Temperature (°C)	Density (kg/m³)	Sp. Enthalpy (kJ/kg)	Dyn. Visc. (μPa·s)	Sp. Heat (kJ/kg K)	Th. Cond. (W/kg K)	Sp. Entropy (kJ/kg K)
70	235	824.240	1014.38	114.398	4.68438	0.63860	2.64788
70	255	794.608	1109.91	104.626	4.88106	0.61545	2.83226
70	275	760.633	1210.24	95.8194	5.17298	0.58690	3.01868
70	280	751.244	1236.34	93.7016	5.26978	0.57878	3.06608
70	$285.83^{f}$	739.724	1267.44	91.2529	5.40039	0.56873	3.12199
70	$285.83^{g}$	36.5236	2772.57	18.9606	5.35404	0.06437	5.81463
70	290	35.6584	2793.98	19.1739	4.93602	0.06321	5.85279
70	295	34.7341	2817.70	19.4277	4.57120	0.06211	5.89473
70	315	31.8273	2899.57	20.4198	3.72521	0.05968	6.03644
70	335	29.6751	2969.28	21.3836	3.28458	0.05912	6.15302
90	255	796,965	1109.82	105.187	4.85349	0.61808	2.82731
90	275	763.650	1209.44	96.4513	5.12787	0.59017	3.01243
90	295	724.282	1316.03	88.1505	5.57120	0.55578	3.20336
90	300	713.071	1344.27	86.0630	5.73047	0.54590	3.25286
90	$303.347^f$	705.158	1363.65	84.6519	5.85416	0.53893	3.28657
90	$303.347^{g}$	48.7973	2742.88	19.8302	6.47619	0.07378	5.67901
90	305	48.2101	2753.35	19.9126	6.19242	0.07302	5.69714
90	310	46.6216	2782.61	20.1625	5.55785	0.07106	5.74754
90	330	41.9577	2878.87	21.1488	4.25988	0.06661	5.90996
90	350	38.7321	2957.22	22.1128	3.63702	0.06497	6.03781
110	270	775.183	1183.49	99.1686	5.01117	0.60069	2.96011
110	290	738.514	1287.02	90.9210	5.37032	0.56894	3.14725
110	310	693.719	1400.08	82.6809	6.00704	0.52945	3.34447
110	315	680.510	1430.72	80.5130	6.25681	0.51793	3.39679
110	$318.081^f$	671.796	1450.28	79.1380	6.44269	0.51042	3.42995
110	$318.081^g$	62.5239	2706.39	20.7156	7.91681	0.08464	5.55453
110	320	61.4344	2721.07	20.8020	7.40624	0.08328	5.57932
110	325	58.9813	2755.61	21.0326	6.48019	0.08036	5.63730
110	345	52.2055	2864.80	21.9762	4.72521	0.07375	5.81702
110	365	47.7809	2950.60	22.9199	3.93839	0.07069	5.95368
130	280	760.638	1233.53	95.6254	5.12483	0.58889	3.04664
130	300	721.600	1339.92	87.6056	5.55148	0.55462	3.23555
130	320	672.705	1458.02	79.2983	6.36059	0.51168	3.43800
130	325	657.886	1490.64	77.0374	6.70089	0.49904	3.49276
130	$330.857^f$	638.371	1531.40	74.2013	7.25793	0.48288	3.56058
130	330.857 <sup>g</sup>	78.2159	2662.89	21.6783	9.90715	0.09803	5.43388
130	335	74.6713	2700.35	21.8236	8.32392	0.09370	5.49568
130	340	71.2780	2738.92	22.0193	7.19537	0.08981	5.55886
130 130	360 380	62.2874 56.6452	2858.09 2949.64	22.8859 23.7914	5.08166 4.17422	0.08091 0.07548	5.75029 5.89272
150	295	735.696	1310.98	90.2953	5.35874	0.56769	3.18002
150	315	691.612	1423.51	82.3501	5.95672	0.52868	3.37462
150	335 340	632.628	1553.95	73.4367	7.32307	0.47855	3.59258
150 150	$340$ $342.158^f$	613.094 603.514	1592.27 1610.15	70.7684 69.5045	8.06472 8.52522	0.46328 0.45616	3.65534 3.68445
		96.7109			12.9821		
150 150	342.158 <sup>g</sup> 345	96.7109	2610.86 2644.47	22.7932 22.8229	12.9821	0.11579 0.11062	5.31080 5.36530
150	343 350	92.3891 87.1027	2693.00	22.8229	8.78851	0.11062	5.44350
150	370	74.1123	2831.40	23.6517	5.68675	0.10400	5.66236
150	390	66.6294	2932.11	24.4949	4.52636	0.08154	5.81664
175	305	719.996	1363.23	87.2869	5.51155	0.55453	3.26519
175	303 325	672.722	1479.84	79.3640	6.23114	0.53433	3.46340
175	323 345	606.735	1619.24	79.3040	8.09451	0.31278	3.46340
175	350	583.284	1662.45	66.9931	9.31471	0.43802	3.76210
175	$354.671^f$	554.671	1710.76	24.5980	11.7161	0.42460	3.83933
- 10			1,10,70			22.00	2.00,00

Abs. Press. (bar)	$\begin{array}{c} \text{Temperature} \\ (^{\circ}C) \end{array}$	Density (kg/m³)	Sp. Enthalpy (kJ/kg)	Dyn. Visc. $(\mu Pa \cdot s)$	Sp. Heat (kJ/kg K)	Th. Cond. (W/kg K)	Sp. Entropy (kJ/kg K)
175	354.671 <sup>g</sup>	126.154	2529.11	24.5959	20.3861	0.15041	5.14280
175	360	112.735	2612.11	24.3426	12.5541	0.13220	5.27448
175	365	104.987	2667.41	24.3260	9.88367	0.12202	5.36149
175	385	87.7186	2819.31	24.8116	6.12497	0.09637	5.59616
175	405	78.2387	2926.89	25.5561	4.80232	0.08825	5.75727
200	315	703.574	1416.48	84.3906	5.68601	0.54063	3.35047
200	335	652.646	1537.85	76.4101	6.56010	0.49605	3.55332
200	355	577.560	1689.10	66.3874	9.24850	0.43768	3.79782
200	360	548.088	1739.97	62.8131	11.4527	0.41979	3.87860
200	$365.746^f$	490.524	1827.10	27.5020	23.1986	0.40374	4.01538
200	365.746 <sup>g</sup>	170.699	2411.39	27.4892	45.6779	0.22650	4.92990
200	370	144.458	2526.33	26.3168	18.6702	0.17938	5.10937
200	375	130.248	2602.59	25.9146	12.7497	0.14516	5.22745
200	395	104.325	2783.66	25.9134	6.93650	0.10712	5.50299
200	415	91.6515	2902.98	26.4952	5.23792	0.09618	5.67907
220.64	325	685.279	1471.51	81.4013	5.91075	0.52493	3.43824
220.64	345	629.437	1599.29	73.2031	7.02522	0.47699	3.64828
220.64	365	538.987	1770.57	61.8605	11.5669	0.41312	3.92076
220.64	370	494.900	1840.38	56.8630	17.8178	0.39475	4.02962
220.64	$373.946^{c}$	333.590	2068.59	40.4857	15508.6	0.80297	4.38272
220.64	375	210.605	2335.69	30.5518	66.7832	0.33572	4.79535
220.64	380	165.350	2497.57	27.9948	20.0991	0.18704	5.04437
220.64	400	121.890	2732.92	26.9019	8.10092	0.11983	5.40004
220.64	420	104.816	2867.92	27.2430	5.77696	0.10433	5.59782
250	335	668.367	1526.35	78.8446	6.11310	0.51075	3.52197
250	355	608.436	1659.94	70.5147	7.44975	0.46032	3.73786
250	375	505.649	1849.18	58.2685	13.6039	0.38691	4.03418
250	380	451.047	1935.30	52.4156	23.1002	0.38914	4.16646
250	384.863 <sup>p</sup>	317.491	2150.71	39.5717	71.1190	0.36068	4.49474
250	390	215.205	2395.46	31.7048	28.4665	0.22626	4.86555
250	395	184.181	2503.96	29.9468	17.2634	0.18248	5.02857
250	415	137.975	2730.55	28.4612	8.19086	0.12882	5.36331
250	435	118.460	2868.26	28.5967	5.92912	0.11239	5.56073

 $<sup>^</sup>f$  Saturated liquid phase.

## **D.2.2 SATURATED CONDITIONS**

The following properties are listed as a function of pressure p:  $T_{sat}$  - saturation temperature,  $i_f$  - specific enthalpy of saturated water,  $i_g$  - specific entropy of dry saturated steam,  $i_{fg}$  - latent heat,  $s_f$  - specific entropy of saturated water,  $s_g$  - specific entropy of dry saturated steam,  $s_{fg}$  - jump of specific entropy from steam to water,  $\sigma$  - surface tension.

$T_{sat}$	$i_f$	$i_g$	$i_{fg}$	$s_f$	$s_g$	$s_{fg}$	σ
(°C)	(kJ/kg)	(kJ/kg)	(kJ/kg)	(J/kg K)	(J/kg K)	(J/kg K)	$(10^{-3}\text{N/m})$
99.61	417.436	2674.95	2257.51	1302.56	7358.81	6056.25	58.99
120.2	504.684	2706.24	2201.56	1530.10	7126.86	5596.76	54.93
133.5	561.455	2724.89	2163.44	1671.76	6991.57	5319.80	52.20
143.6	604.723	2738.06	2133.33	1776.60	6895.42	5118.82	50.10
151.8	640.185	2748.11	2107.92	1860.60	6820.58	4959.98	48.35
158.8	670.501	2756.14	2085.64	1931.10	6759.17	4828.07	46.84
165.0	697.143	2762.75	2065.61	1992.08	6706.98	4714.90	45.51
170.4	721.018	2768.30	2047.28	2045.99	6661.54	4615.55	44.32
170.4	721.018	2768.30	2047.28	2045.99	6661.54	4615.55	44.32
	99.61 120.2 133.5 143.6 151.8 158.8 165.0 170.4	(°C) (kJ/kg) 99.61 417.436 120.2 504.684 133.5 561.455 143.6 604.723 151.8 640.185 158.8 670.501 165.0 697.143 170.4 721.018	(°C) (kJ/kg) (kJ/kg)  99.61 417.436 2674.95 120.2 504.684 2706.24 133.5 561.455 2724.89 143.6 604.723 2738.06 151.8 640.185 2748.11 158.8 670.501 2756.14 165.0 697.143 2762.75 170.4 721.018 2768.30	(°C) (kJ/kg) (kJ/kg) (kJ/kg)  99.61 417.436 2674.95 2257.51  120.2 504.684 2706.24 2201.56  133.5 561.455 2724.89 2163.44  143.6 604.723 2738.06 2133.33  151.8 640.185 2748.11 2107.92  158.8 670.501 2756.14 2085.64  165.0 697.143 2762.75 2065.61  170.4 721.018 2768.30 2047.28	(°C)         (kJ/kg)         (kJ/kg)         (kJ/kg)         (J/kg K)           99.61         417.436         2674.95         2257.51         1302.56           120.2         504.684         2706.24         2201.56         1530.10           133.5         561.455         2724.89         2163.44         1671.76           143.6         604.723         2738.06         2133.33         1776.60           151.8         640.185         2748.11         2107.92         1860.60           158.8         670.501         2756.14         2085.64         1931.10           165.0         697.143         2762.75         2065.61         1992.08           170.4         721.018         2768.30         2047.28         2045.99	(°C)         (kJ/kg)         (kJ/kg)         (kJ/kg)         (J/kg K)         (J/kg K)           99.61         417.436         2674.95         2257.51         1302.56         7358.81           120.2         504.684         2706.24         2201.56         1530.10         7126.86           133.5         561.455         2724.89         2163.44         1671.76         6991.57           143.6         604.723         2738.06         2133.33         1776.60         6895.42           151.8         640.185         2748.11         2107.92         1860.60         6820.58           158.8         670.501         2756.14         2085.64         1931.10         6759.17           165.0         697.143         2762.75         2065.61         1992.08         6706.98           170.4         721.018         2768.30         2047.28         2045.99         6661.54	(°C)         (kJ/kg)         (kJ/kg)         (kJ/kg)         (J/kg K)         (J/kg K)         (J/kg K)           99.61         417.436         2674.95         2257.51         1302.56         7358.81         6056.25           120.2         504.684         2706.24         2201.56         1530.10         7126.86         5596.76           133.5         561.455         2724.89         2163.44         1671.76         6991.57         5319.80           143.6         604.723         2738.06         2133.33         1776.60         6895.42         5118.82           151.8         640.185         2748.11         2107.92         1860.60         6820.58         4959.98           158.8         670.501         2756.14         2085.64         1931.10         6759.17         4828.07           165.0         697.143         2762.75         2065.61         1992.08         6706.98         4714.90           170.4         721.018         2768.30         2047.28         2045.99         6661.54         4615.55

g Saturated vapour phase.

 $<sup>^{\</sup>it c}$  Critical point temperature.

<sup>&</sup>lt;sup>p</sup> Pseudo-critical point temperature.

p (bar)	<i>T<sub>sat</sub></i> (°C)	$i_f$ (kJ/kg)	i <sub>g</sub> (kJ/kg)	$i_{fg}$ (kJ/kg)	s <sub>f</sub> (J/kg K)	s <sub>g</sub> (J/kg K)	s <sub>fg</sub> (J/kg K)	$\sigma (10^{-3}\text{N/m})$
9	175.4	742.725	2773.04	2030.31	2094.40	6621.24	4526.83	43.22
9 10	173.4	762.683	2777.12	2030.31	2138.43	6584.98	4326.83 4446.55	42.22
11	184.1	781.198	2780.67	1999.47	2178.86	6551.99	4373.12	41.28
12	188.0	798.499	2783.77	1985.27	2216.30	6521.69	4305.39	40.40
13	191.6	814.764	2786.49	1971.73	2251.18	6493.65	4242.46	39.58
14	195.0	830.132	2788.89	1958.76	2283.88	6467.52	4183.64	38.80
15	198.3	844.717	2791.01	1946.29	2314.68	6443.05	4128.37	38.06
16	201.4	858.610	2792.88	1934.27	2343.81	6420.02	4076.21	37.36
17	204.3	871.888	2794.53	1922.64	2371.46	6398.25	4026.79	36.69
18	207.1	884.614	2795.99	1911.37	2397.79	6377.60	3979.80	36.04
19	209.8	896.844	2797.26	1900.42	2422.94	6357.94	3934.99	35.42
20	212.4	908.622	2798.38	1889.76	2447.02	6339.16	3892.14	34.83
21	214.9	919.989	2799.36	1879.37	2470.13	6321.20	3851.06	34.26
22	217.3	930.981	2800.20	1869.22	2492.36	6303.95	3811.59	33.70
23	219.6	941.626	2800.92	1859.30	2513.77	6287.37	3773.60	33.17
24	221.8	951.952	2801.54	1849.58	2534.44	6271.40	3736.95	32.65
25	224.0	961.983	2802.04	1840.06	2554.43	6255.97	3701.55	32.15
26	226.1	971.740	2802.45	1830.71	2573.77	6241.06	3667.29	31.66
27	228.1	981.241	2802.78	1821.54	2592.52	6226.62	3634.10	31.18
28	230.1	990.503	2803.02	1812.51	2610.73	6212.61	3601.89	30.72
29 30	232.0	999.542 1008.37	2803.18	1803.63 1794.89	2628.41 2645.62	6199.01 6185.79	3570.60	30.27 29.83
31	233.9 235.7	1008.37	2803.26 2803.28	1794.89	2643.62	6172.92	3540.17 3510.54	29.83 29.41
32	237.5	1017.00	2803.24	1777.79	2678.71	6160.37	3481.66	28.99
33	239.2	1023.43	2803.24	1769.41	2694.64	6148.14	3453.50	28.58
34	240.9	1041.83	2802.96	1761.14	2710.19	6136.19	3426.00	28.18
35	242.6	1049.78	2802.74	1752.97	2725.39	6124.51	3399.12	27.79
36	244.2	1057.57	2802.47	1744.90	2740.25	6113.09	3372.84	27.41
37	245.8	1065.23	2802.15	1736.91	2754.79	6101.92	3347.13	27.04
38	247.3	1072.76	2801.78	1729.02	2769.03	6090.97	3321.94	26.67
39	248.9	1080.15	2801.36	1721.21	2782.98	6080.24	3297.26	26.31
40	250.4	1087.43	2800.90	1713.47	2796.65	6069.71	3273.06	25.96
41	251.8	1094.58	2800.39	1705.81	2810.07	6059.38	3249.31	25.61
42	253.3	1101.63	2799.85	1698.22	2823.23	6049.23	3226.00	25.27
43	254.7	1108.57	2799.27	1690.70	2836.15	6039.25	3203.10	24.94
44	256.1	1115.40	2798.65	1683.25	2848.85	6029.45	3180.60	24.61
45	257.4	1122.14	2798.00	1675.85	2861.33	6019.80	3158.47	24.29
46	258.8	1128.79	2797.31	1668.52	2873.60	6010.30	3136.71	23.98
47	260.1	1135.34	2796.59	1661.24	2885.66	6000.95	3115.29	23.66
48	261.4	1141.81	2795.83	1654.02	2897.54	5991.74	3094.20	23.36
49 50	262.7 263.9	1148.20 1154.50	2795.04 2794.23	1646.85	2909.23	5982.66	3073.43	23.06
50 51	265.9	1154.50	2794.23	1639.73 1632.65	2920.75 2932.09	5973.70 5964.87	3052.96 3032.78	22.76 22.47
52	266.4	1166.88	2793.38	1625.62	2932.09	5956.15	3032.78	22.47
53	267.6	1172.96	2791.60	1618.64	2954.29	5947.55	2993.26	21.90
54	268.8	1172.98	2790.67	1611.69	2965.15	5939.05	2973.89	21.62
55	270.0	1184.92	2789.72	1604.79	2975.88	5930.65	2954.78	21.34
56	271.1	1190.81	2788.74	1597.93	2986.45	5922.35	2935.90	21.07
57	272.3	1196.63	2787.73	1591.10	2996.89	5914.15	2917.26	20.81
58	273.4	1202.39	2786.70	1584.31	3007.20	5906.04	2898.83	20.54
59	274.5	1208.09	2785.64	1577.55	3017.38	5898.01	2880.63	20.28
60	275.6	1213.73	2784.56	1570.83	3027.44	5890.07	2862.63	20.02
61	276.7	1219.32	2783.46	1564.14	3037.38	5882.21	2844.83	19.77
62	277.7	1224.86	2782.33	1557.48	3047.20	5874.42	2827.23	19.52
63	278.8	1230.34	2781.19	1550.84	3056.91	5866.71	2809.81	19.28
64	279.8	1235.78	2780.02	1544.24	3066.50	5859.08	2792.57	19.03
65	280.9	1241.17	2778.83	1537.66	3076.00	5851.51	2775.51	18.79
66	281.9	1246.51	2777.62	1531.11	3085.39	5844.01	2758.62	18.55
67	282.9	1251.81	2776.39	1524.58	3094.68	5836.58	2741.89	18.32
68	283.9	1257.06	2775.13	1518.07	3103.88	5829.20	2725.32	18.09
69 70	284.9	1262.27	2773.86	1511.59	3112.98	5821.89	2708.91	17.86
70	285.8	1267.44	2772.57	1505.13	3121.99	5814.63	2692.64	17.63

p (bar)	<i>T<sub>sat</sub></i> (°C)	$i_f$ (kJ/kg)	i <sub>g</sub> (kJ/kg)	$i_{fg}$ (kJ/kg)	s <sub>f</sub> (J/kg K)	s <sub>g</sub> (J/kg K)	s <sub>fg</sub> (J/kg K)	$\sigma (10^{-3}\text{N/m})$
71	286.8	1272.57	2771.26	1498.69	3130.92	5807.43	2676.52	17.41
72	287.7	1277.65	2769.93	1492.27	3139.76	5800.29	2660.53	17.19
73	288.7	1282.70	2768.58	1485.87	3148.51	5793.19	2644.68	16.97
74	289.6	1287.72	2767.21	1479.49	3157.19	5786.15	2628.96	16.75
75	290.5	1292.70	2765.82	1473.12	3165.78	5779.16	2613.37	16.54
76	291.4	1297.64	2764.41	1466.78	3174.30	5772.21	2597.91	16.33
77 78	292.4 293.2	1302.55 1307.42	2762.99 2761.55	1460.44 1454.12	3182.74 3191.12	5765.30 5758.44	2582.56 2567.33	16.12 15.91
78 79	294.1	1312.27	2760.09	1447.82	3191.12	5751.63	2552.21	15.71
80	295.0	1317.08	2758.61	1441.53	3207.65	5744.85	2537.20	15.51
81	295.9	1321.86	2757.12	1435.25	3215.82	5738.11	2522.29	15.31
82	296.7	1326.61	2755.60	1428.99	3223.92	5731.41	2507.49	15.11
83	297.6	1331.34	2754.07	1422.74	3231.96	5724.75	2492.79	14.91
84	298.4	1336.03	2752.52	1416.49	3239.93	5718.12	2478.19	14.72
85	299.3	1340.70	2750.96	1410.26	3247.85	5711.52	2463.67	14.53
86	300.1	1345.34	2749.38	1404.04	3255.70	5704.96	2449.26	14.34
87 88	300.9 301.7	1349.96 1354.54	2747.78 2746.16	1397.82 1391.62	3263.50 3271.25	5698.43 5691.93	2434.92 2420.68	14.15 13.96
89	302.5	1354.54	2744.53	1385.42	3271.23	5685.45	2420.08	13.78
90	303.3	1363.65	2742.88	1379.23	3286.57	5679.01	2392.44	13.60
91	304.1	1368.17	2741.22	1373.05	3294.16	5672.59	2378.44	13.41
92	304.9	1372.66	2739.53	1366.87	3301.69	5666.20	2364.51	13.24
93	305.7	1377.14	2737.83	1360.70	3309.18	5659.84	2350.66	13.06
94	306.5	1381.59	2736.12	1354.53	3316.61	5653.49	2336.88	12.88
95	307.3	1386.02	2734.38	1348.37	3324.00	5647.17	2323.17	12.71
96	308.0	1390.43	2732.64	1342.21	3331.35	5640.88	2309.53	12.54
97	308.8	1394.81	2730.87	1336.06	3338.65	5634.60	2295.95	12.37
98	309.5	1399.18	2729.09	1329.90	3345.90	5628.35	2282.44	12.20
99 100	310.3 311.0	1403.54 1407.87	2727.29 2725.47	1323.75 1317.61	3353.12 3360.29	5622.11 5615.89	2268.99 2255.60	12.03 11.86
101	311.0	1412.18	2723.47	1317.01	3367.42	5609.69	2242.27	11.70
102	312.5	1416.48	2723.04	1305.31	3374.52	5603.50	2228.99	11.54
103	313.2	1420.76	2719.93	1299.17	3381.57	5597.34	2215.77	11.38
104	313.9	1425.02	2718.04	1293.02	3388.59	5591.18	2202.59	11.22
105	314.6	1429.27	2716.14	1286.88	3395.57	5585.04	2189.48	11.06
106	315.3	1433.50	2714.23	1280.73	3402.51	5578.92	2176.40	10.90
107	316.0	1437.72	2712.30	1274.58	3409.42	5572.80	2163.38	10.75
108	316.7	1441.92	2710.35	1268.43	3416.30	5566.70	2150.40	10.59
109	317.4	1446.11	2708.38	1262.27	3423.14	5560.61	2137.47	10.44
110	318.1 318.8	1450.28	2706.39 2704.39	1256.12 1249.96	3429.95 3436.73	5554.53 5548.46	2124.58	10.29 10.14
111 112	319.4	1454.44 1458.58	2704.39	1249.96	3430.73	5542.40	2111.73 2098.92	9.988
113	320.1	1462.72	2700.34	1243.79	3450.20	5536.34	2086.14	9.841
114	320.8	1466.84	2698.28	1231.45	3456.89	5530.29	2073.41	9.695
115	321.4	1470.95	2696.21	1225.26	3463.55	5524.25	2060.70	9.550
116	322.1	1475.05	2694.12	1219.08	3470.18	5518.22	2048.03	9.406
117	322.7	1479.13	2692.02	1212.88	3476.79	5512.19	2035.40	9.264
118	323.4	1483.21	2689.89	1206.68	3483.37	5506.16	2022.79	9.123
119	324.0	1487.27	2687.75	1200.47	3489.93	5500.14	2010.21	8.983
120	324.7	1491.33	2685.58	1194.26	3496.46	5494.12	1997.66	8.844
121	325.3	1495.37	2683.40	1188.03	3502.97	5488.10	1985.13	8.707
122 123	325.9 326.6	1499.41 1503.43	2681.20 2678.98	1181.79 1175.55	3509.45 3515.91	5482.08 5476.06	1972.63 1960.15	8.570 8.435
123	320.0	1503.43	2676.74	11/5.55	3513.91	5470.06 5470.04	1960.13 1947.69	8.433 8.301
125	327.8	1511.46	2674.49	1163.02	3528.77	5464.02	1935.25	8.168
126	328.4	1515.47	2672.21	1156.74	3535.17	5458.00	1922.83	8.037
127	329.0	1519.46	2669.91	1150.45	3541.55	5451.98	1910.43	7.906
128	329.7	1523.45	2667.59	1144.14	3547.91	5445.95	1898.04	7.777
129	330.3	1527.43	2665.25	1137.82	3554.25	5439.92	1885.67	7.648
130	330.9	1531.40	2662.89	1131.49	3560.58	5433.88	1873.30	7.521

p (bar)	<i>T<sub>sat</sub></i> (°C)	$i_f$ (kJ/kg)	i <sub>g</sub> (kJ/kg)	$i_{fg}$ (kJ/kg)	s <sub>f</sub> (J/kg K)	s <sub>g</sub> (J/kg K)	s <sub>fg</sub> (J/kg K)	$\sigma (10^{-3}\text{N/m})$
131	331.5	1535.37	2660.51	1125.14	3566.88	5427.84	1860.95	7.395
132	332.0	1539.33	2658.11	1118.78	3573.17	5421.79	1848.61	7.270
133	332.6	1543.29	2655.69	1112.40	3579.45	5415.73	1836.28	7.146
134	333.2	1547.24	2653.24	1106.00	3585.71	5409.66	1823.95	7.023
135	333.8	1551.19	2650.77	1099.58	3591.96	5403.59	1811.63	6.901
136	334.4	1555.14	2648.28	1093.15	3598.19	5397.50	1799.31	6.780
137	335.0	1559.08	2645.77	1086.70	3604.41	5391.41	1787.00	6.660
138	335.5	1563.01	2643.24	1080.22	3610.62	5385.30	1774.68	6.541
139	336.1	1566.95	2640.68	1073.73	3616.81	5379.18	1762.37	6.423
140	336.7	1570.88	2638.09	1067.21	3623.00	5373.05	1750.05	6.306
141	337.2	1574.81	2635.49	1060.68	3629.18	5366.90	1737.72	6.190
142	337.8	1578.74	2632.85	1054.12	3635.34	5360.74	1725.39	6.075
143	338.3	1582.66	2630.20	1047.53	3641.50	5354.56	1713.06	5.962
144	338.9	1586.59	2627.51	1040.93	3647.66	5348.37	1700.71	5.849
145	339.5	1590.51	2624.81	1034.29	3653.80	5342.15	1688.35	5.737
146	340.0 340.5	1594.44 1598.37	2622.07 2619.31	1027.63	3659.94	5335.92	1675.98	5.626 5.516
147 148	341.1	1602.29	2616.52	1020.95 1014.23	3666.07 3672.20	5329.67 5323.40	1663.60 1651.20	5.407
149	341.6	1606.22	2613.71	1014.23	3678.32	5323.40	1631.20	5.298
150	342.2	1610.15	2610.86	1007.49	3684.45	5310.80	1626.35	5.191
151	342.7	1614.08	2607.99	993.909	3690.57	5304.46	1613.90	5.085
152	343.2	1618.02	2605.09	987.073	3696.68	5298.11	1601.42	4.980
153	343.7	1621.96	2602.16	980.205	3702.80	5291.72	1588.92	4.875
154	344.3	1625.90	2599.21	973.303	3708.92	5285.31	1576.39	4.772
155	344.8	1629.85	2596.22	966.366	3715.04	5278.88	1563.84	4.669
156	345.3	1633.80	2593.20	959.395	3721.16	5272.41	1551.26	4.567
157	345.8	1637.76	2590.15	952.386	3727.28	5265.92	1538.64	4.467
158	346.3	1641.72	2587.06	945.341	3733.41	5259.40	1525.99	4.367
159	346.8	1645.69	2583.95	938.256	3739.54	5252.85	1513.31	4.268
160	347.4	1649.67	2580.80	931.132	3745.68	5246.27	1500.59	4.170
161	347.9	1653.66	2577.62	923.968	3751.82	5239.66	1487.84	4.072
162	348.4	1657.65	2574.41	916.762	3757.97	5233.01	1475.04	3.976
163	348.9	1661.65	2571.16	909.513	3764.13	5226.33	1462.20	3.881
164	349.4	1665.66	2567.88	902.220	3770.30	5219.61	1449.32	3.786
165	349.9	1669.68	2564.57	894.882	3776.48	5212.86	1436.39	3.693
166	350.3	1673.75	2561.25	887.498	3782.72	5206.13	1423.42	3.600
167	350.8	1677.80	2557.85	880.052	3788.93	5199.29	1410.36	3.508
168	351.3	1681.86	2554.41	872.551	3795.16	5192.40	1397.25	3.417
169	351.8	1685.94	2550.93	864.993	3801.40	5185.47	1384.07	3.327 3.237
170 171	352.3 352.8	1690.04 1694.15	2547.41 2543.85	857.377 849.701	3807.67 3813.95	5178.49 5171.46	1370.82 1357.51	3.149
172	353.3	1698.27	2540.23	841.963	3820.26	5164.38	1344.12	3.061
173	353.7	1702.42	2536.58	834.160	3826.59	5157.24	1330.65	2.975
174	354.2	1706.58	2532.87	826.291	3832.95	5150.05	1317.11	2.889
175	354.7	1710.76	2529.11	818.351	3839.33	5142.80	1303.47	2.804
176	355.1	1714.97	2525.31	810.339	3845.73	5135.48	1289.75	2.720
177	355.6	1719.19	2521.45	802.252	3852.17	5128.10	1275.93	2.637
178	356.1	1723.45	2517.53	794.087	3858.64	5120.65	1262.01	2.554
179	356.5	1727.72	2513.56	785.839	3865.14	5113.13	1247.99	2.473
180	357.0	1732.02	2509.53	777.507	3871.68	5105.54	1233.86	2.392
181	357.4	1736.35	2505.44	769.085	3878.26	5097.87	1219.61	2.312
182	357.9	1740.71	2501.28	760.570	3884.88	5090.11	1205.23	2.233
183	358.4	1745.10	2497.06	751.958	3891.54	5082.27	1190.73	2.155
184	358.8	1749.53	2492.77	743.245	3898.24	5074.34	1176.10	2.078
185	359.3	1753.99	2488.41	734.424	3905.00	5066.31	1161.31	2.002
186	359.7	1758.48	2483.98	725.491	3911.81	5058.19	1146.38	1.927
187	360.1	1763.02	2479.46	716.441	3918.67	5049.96	1131.28	1.852
188	360.6	1767.60	2474.86	707.266	3925.60	5041.61	1116.02	1.779
189 190	361.0 361.5	1772.22	2470.18 2465.41	697.961 688.518	3932.59	5033.16	1100.57	1.706
190	361.5	1776.89	40J.41	008.318	3939.64	5024.57	1084.93	1.634

p	$T_{sat}$	$i_f$	$i_g$	$i_{fg}$	$s_f$	$s_g$	$s_{fg}$	$\sigma$
(bar)	(°C)	(kJ/kg)	(kJ/kg)	(kJ/kg)	(J/kg K)	(J/kg K)	(J/kg K)	$(10^{-3} \text{N/m})$
191	361.9	1781.61	2460.54	678.928	3946.78	5015.86	1069.08	1.563
192	362.3	1786.39	2455.57	669.185	3953.99	5007.01	1053.02	1.494
193	362.8	1791.22	2450.50	659.277	3961.28	4998.01	1036.72	1.425
194	363.2	1796.12	2445.31	649.194	3968.67	4988.85	1020.18	1.357
195	363.6	1801.08	2440.01	638.925	3976.16	4979.52	1003.36	1.290
196	364.1	1806.12	2434.57	628.457	3983.75	4970.01	986.265	1.223
197	364.5	1811.23	2429.00	617.776	3991.46	4960.31	968.857	1.158
198	364.9	1816.43	2423.29	606.866	3999.29	4950.41	951.116	1.094
199	365.3	1821.71	2417.42	595.710	4007.26	4940.27	933.015	1.031
200	365.7	1827.10	2411.39	584.287	4015.38	4929.90	914.523	0.969
201	366.2	1832.60	2405.17	572.575	4023.66	4919.26	895.606	0.908
202	366.6	1838.21	2398.76	560.548	4032.12	4908.34	876.223	0.848
203	367.0	1843.96	2392.13	548.178	4040.77	4897.10	856.332	0.789
204	367.4	1849.85	2385.28	535.429	4049.64	4885.52	835.878	0.731
205	367.8	1855.90	2378.16	522.261	4058.76	4873.56	814.800	0.674
206	368.2	1862.13	2370.76	508.630	4068.15	4861.18	793.027	0.619
207	368.6	1868.56	2363.04	494.478	4077.85	4848.32	770.473	0.565
208	369.0	1875.23	2354.97	479.737	4087.89	4834.93	747.035	0.512
209	369.4	1882.16	2346.49	464.327	4098.35	4820.93	722.586	0.460
210	369.8	1889.40	2337.54	448.147	4109.26	4806.23	696.973	0.410
211	370.2	1896.99	2328.06	431.066	4120.73	4790.72	669.994	0.361
212	370.6	1905.02	2317.94	412.917	4132.85	4774.24	641.393	0.313
213	371.0	1913.57	2307.05	393.479	4145.77	4756.60	610.829	0.268
214	371.4	1922.77	2295.22	372.446	4159.69	4737.52	577.829	0.224
215	371.8	1932.81	2282.19	349.378	4174.89	4716.61	541.718	0.181
216	372.2	1943.96	2267.57	323.610	4191.81	4693.28	501.468	0.141
217	372.6	1956.70	2250.75	294.048	4211.16	4666.55	455.392	0.104
218	372.9	1971.88	2230.56	258.683	4234.27	4634.66	400.388	0.069
219	373.3	1991.44	2204.48	213.041	4264.15	4593.70	329.550	0.038
220	373.7	2021.91	2164.20	142.293	4310.86	4530.84	219.977	0.012