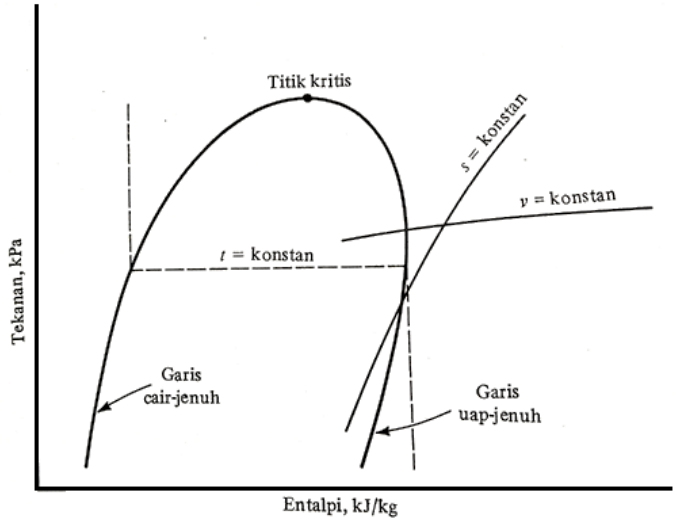
LAMPIRAN A

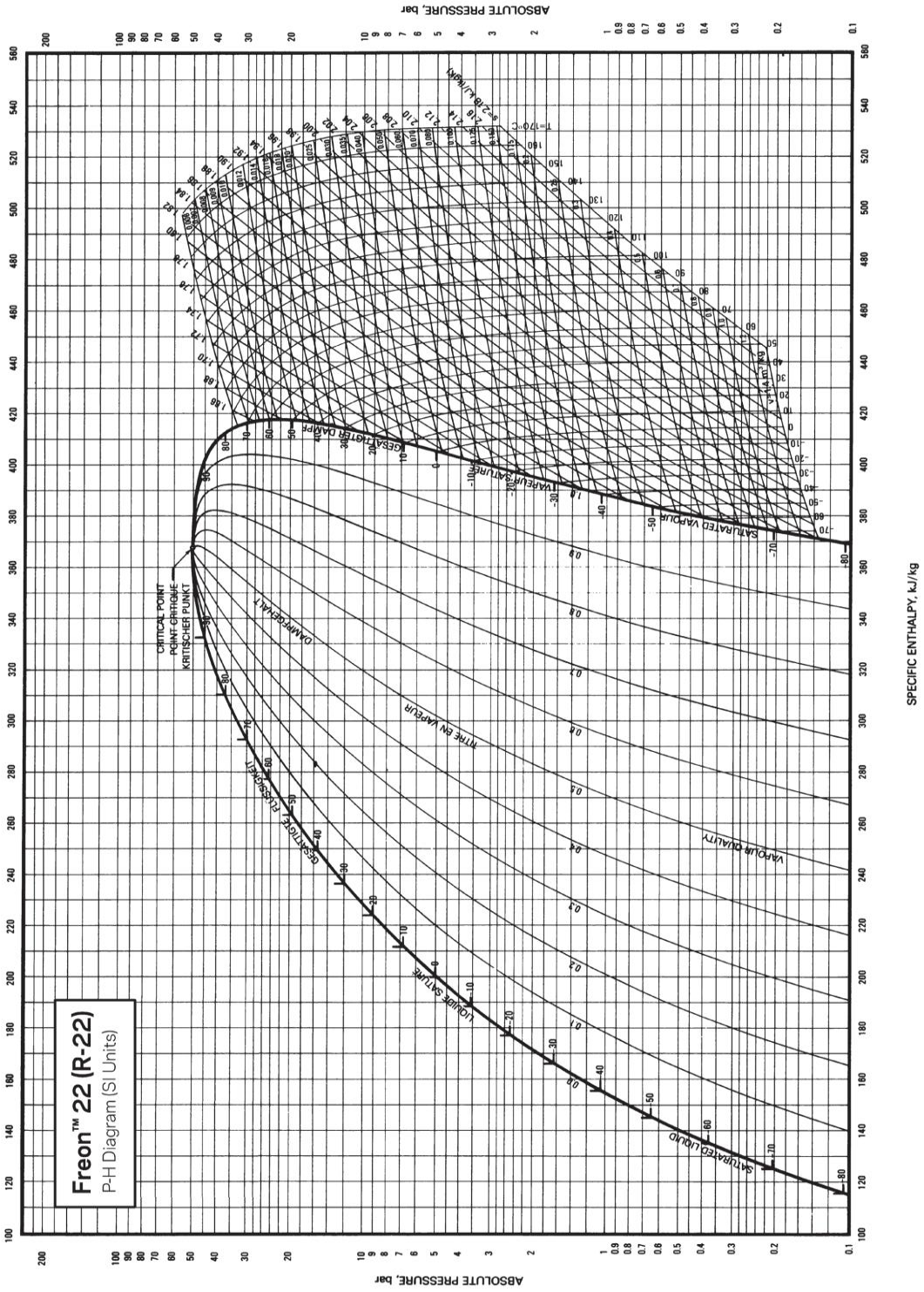
DIAGRAM TEKANAN-ENTALPI

Dengan diagram tekanan-entalpi merupakan alat garis yang biasa digunakan untuk menyatakan sifat refrigeran. Diagram rangka entalpi dapat diihat dalam Gambar A.2 dengan tekanan sebagai ordinat, dan entalpi sebagai absis.



Gambar A. 1 Diagram p-h suatu refrigeran (Stoecker, 1986)

Dengan garis-garis cairan jenuh dan uap jenuh sebagai rujukan, maka garis-garis suhu,entropi,dan volume spesifik konstan akan muncul pada diagram. Garis suhu konstan mendatar pada suhu campuran karena di sini suhu tersebut harus cocok dengan besarnya tekanan jenuh. Cairan bawah digin (*subcooled-liquid*) atau daerah cair bertekanan berada disebelah kiri garis cair-jenuh. Dalam daerah ini garis suhu-konstan secara praktis tegak lurus. Karena itu, suhu cairan-bertekanan menentukan entalpi, bukan tekanan. Daerah panas-lanjut ada di sebelah kanan garis uap-jenuh. Garis volume spesifik akan miring ke atas ke arah kanan. Garis volume spesifik yang lebih tinggi akan ditemukan padatekanan yang lebih rendah. Garis enrtopi-konstan akan naik ke arah kanan. Diagram p-h R-22 akan disajikan pada Gambar A.2



Gambar A. 2 Diagram p-h R-22 (Chemours, 2016)

LAMPIRAN B

TABEL PROPERTIS R-22

Tabel B. 1 Saturasi R-22 (Chemours, 2016)

Temp °C	Pressure [kPa]	Volume [m³/kg]		Density [kg/m³]		Enthalpy [kJ/kg]			Entropy [kJ/K-kg]		Temp °C
		Liquid v_f	Vapour v_g	Liquid d_f	Vapour d_g	Liquid H_f	Latent H_{fg}	Vapour H_g	Liquid S_f	Vapour S_g	
-10	354.8	0.0008	0.0653	1315.0	15.320	188.4	212.8	401.2	0.957	1.766	-10
-9	367.5	0.0008	0.0631	1311.0	15.850	189.6	212.0	401.6	0.962	1.764	-9
-8	380.5	0.0008	0.0610	1308.0	16.380	190.7	211.3	402.0	0.966	1.763	-8
-7	393.9	0.0008	0.0590	1305.0	16.940	191.9	210.5	402.4	0.970	1.761	-7
-6	407.7	0.0008	0.0571	1302.0	17.500	193.0	209.8	402.8	0.974	1.760	-6
-5	421.8	0.0008	0.0553	1298.0	18.090	194.2	209.0	403.2	0.979	1.758	-5
-4	436.3	0.0008	0.0535	1295.0	18.680	195.3	208.2	403.5	0.983	1.757	-4
-3	451.1	0.0008	0.0518	1292.0	19.300	196.5	207.4	403.9	0.987	1.755	-3
-2	466.4	0.0008	0.0502	1288.0	19.920	197.7	206.6	404.3	0.992	1.754	-2
-1	482.0	0.0008	0.0486	1285.0	20.570	198.8	205.9	404.7	0.996	1.752	-1
0	498.0	0.0008	0.0471	1282.0	21.230	200.0	205.0	405.0	1.000	1.751	0
1	514.4	0.0008	0.0457	1278.0	21.910	201.2	204.2	405.4	1.004	1.749	1
2	531.2	0.0008	0.0442	1275.0	22.600	202.4	203.4	405.8	1.008	1.748	2
3	548.4	0.0008	0.0429	1271.0	23.310	203.5	202.6	406.1	1.013	1.746	3
4	566.1	0.0008	0.0416	1268.0	24.040	204.7	201.8	406.5	1.017	1.745	4
5	584.1	0.0008	0.0403	1264.0	24.790	205.9	200.9	406.8	1.021	1.744	5
6	602.6	0.0008	0.0391	1261.0	25.560	207.1	200.1	407.2	1.025	1.742	6
7	621.5	0.0008	0.0380	1257.0	26.340	208.3	199.2	407.5	1.030	1.741	7
8	640.9	0.0008	0.0368	1254.0	27.150	209.5	198.4	407.9	1.034	1.739	8
9	660.7	0.0008	0.0358	1250.0	27.970	210.7	197.5	408.2	1.038	1.738	9
10	680.9	0.0008	0.0347	1247.0	28.820	211.9	196.7	408.6	1.042	1.737	10
11	701.7	0.0008	0.0337	1243.0	29.690	213.1	195.8	408.9	1.046	1.735	11
12	722.9	0.0008	0.0327	1239.0	30.570	214.3	194.9	409.2	1.051	1.734	12
13	744.5	0.0008	0.0318	1236.0	31.480	215.5	194.0	409.5	1.055	1.733	13
14	766.7	0.0008	0.0309	1232.0	32.410	216.7	193.2	409.9	1.059	1.732	14
15	789.3	0.0008	0.0300	1229.0	33.360	217.9	192.3	410.2	1.063	1.730	15
16	812.4	0.0008	0.0291	1225.0	34.340	219.1	191.4	410.5	1.067	1.729	16
17	836.1	0.0008	0.0283	1221.0	35.340	220.4	190.4	410.8	1.071	1.728	17
18	860.2	0.0008	0.0275	1217.0	36.360	221.6	189.5	411.1	1.076	1.726	18
19	884.8	0.0008	0.0267	1214.0	37.410	222.8	188.6	411.4	1.080	1.725	19
20	910.0	0.0008	0.0260	1210.0	38.480	224.1	187.6	411.7	1.084	1.724	20
21	935.7	0.0008	0.0253	1206.0	39.570	225.3	186.6	411.9	1.088	1.722	21
22	961.9	0.0008	0.0246	1202.0	40.700	226.5	185.7	412.2	1.092	1.721	22
23	988.7	0.0008	0.0239	1198.0	41.850	227.8	184.7	412.5	1.096	1.720	23
24	1016.0	0.0008	0.0232	1195.0	43.030	229.0	183.8	412.8	1.100	1.719	24
25	1044.0	0.0008	0.0226	1191.0	44.230	230.3	182.7	413.0	1.105	1.717	25
26	1072.0	0.0008	0.0220	1187.0	45.470	231.5	181.8	413.3	1.109	1.716	26
27	1101.0	0.0009	0.0214	1183.0	46.730	232.8	180.7	413.5	1.113	1.715	27
28	1131.0	0.0009	0.0208	1179.0	48.020	234.1	179.7	413.8	1.117	1.714	28
29	1161.0	0.0009	0.0203	1175.0	49.350	235.3	178.7	414.0	1.121	1.712	29
30	1192.0	0.0009	0.0197	1171.0	50.700	236.6	177.7	414.3	1.125	1.711	30
31	1223.0	0.0009	0.0192	1167.0	52.090	237.9	176.6	414.5	1.129	1.710	31
32	1255.0	0.0009	0.0187	1163.0	53.520	239.2	175.5	414.7	1.133	1.709	32
33	1288.0	0.0009	0.0182	1158.0	54.970	240.5	174.4	414.9	1.138	1.707	33
34	1321.0	0.0009	0.0177	1154.0	56.460	241.8	173.3	415.1	1.142	1.706	34
35	1355.0	0.0009	0.0172	1150.0	57.990	243.1	172.2	415.3	1.146	1.705	35
36	1389.0	0.0009	0.0168	1146.0	59.550	244.4	171.1	415.5	1.150	1.704	36
37	1424.0	0.0009	0.0164	1142.0	61.150	245.7	170.0	415.7	1.154	1.702	37
38	1460.0	0.0009	0.0159	1137.0	62.790	247.0	168.9	415.9	1.158	1.701	38
39	1497.0	0.0009	0.0155	1133.0	64.470	248.3	167.8	416.1	1.162	1.700	39
40	1534.0	0.0009	0.0151	1129.0	66.190	249.6	166.6	416.2	1.166	1.698	40
41	1571.0	0.0009	0.0147	1124.0	67.960	251.0	165.4	416.4	1.171	1.697	41
42	1610.0	0.0009	0.0143	1120.0	69.760	252.3	164.3	416.6	1.175	1.696	42
43	1649.0	0.0009	0.0140	1115.0	71.610	253.7	163.0	416.7	1.179	1.695	43
44	1689.0	0.0009	0.0136	1111.0	73.510	255.0	161.8	416.8	1.183	1.693	44
45	1729.0	0.0009	0.0133	1106.0	75.460	256.4	160.6	417.0	1.187	1.692	45
46	1770.0	0.0009	0.0129	1101.0	77.450	257.7	159.4	417.1	1.191	1.691	46
47	1812.0	0.0009	0.0126	1097.0	79.500	259.1	158.1	417.2	1.196	1.689	47
48	1855.0	0.0009	0.0123	1092.0	81.590	260.5	156.8	417.3	1.200	1.688	48
49	1899.0	0.0009	0.0119	1087.0	83.740	261.9	155.5	417.4	1.204	1.687	49
50	1943.0	0.0009	0.0116	1082.0	85.950	263.2	154.2	417.4	1.208	1.685	50

Tabel B. 2 *Superheated vapor* R-22 tekanan konstan (Chemours, 2016)

Absolute Pressure kPa

Temp °C	500 (+0.12°C)			525 (+1.63°C)			550 (+3.09°C)			575 (+4.50°C)			Temp °C
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.0469)	(405.1)	(1.750)	(0.0448)	(405.6)	(1.748)	(0.0428)	(406.2)	(1.746)	(0.0410)	(406.7)	(1.744)	
5	0.0482	408.7	1.764	0.0456	408.1	1.757	0.0432	407.6	1.751	0.0411	407.1	1.746	5
10	0.0494	412.3	1.777	0.0468	411.8	1.771	0.0444	411.3	1.765	0.0422	410.8	1.759	10
15	0.0506	416.0	1.789	0.0479	415.5	1.783	0.0455	415.0	1.778	0.0433	414.6	1.772	15
20	0.0518	419.6	1.802	0.0491	419.2	1.796	0.0466	418.7	1.790	0.0444	418.3	1.785	20
25	0.0530	423.2	1.814	0.0502	422.8	1.808	0.0477	422.4	1.803	0.0454	422.0	1.797	25
30	0.0541	426.8	1.826	0.0513	426.4	1.820	0.0488	426.0	1.815	0.0465	425.6	1.810	30
35	0.0553	430.4	1.838	0.0524	430.1	1.832	0.0498	429.7	1.827	0.0475	429.3	1.822	35
40	0.0564	434.1	1.849	0.0535	433.7	1.844	0.0509	433.4	1.839	0.0485	433.0	1.834	40
45	0.0575	437.7	1.861	0.0546	437.4	1.855	0.0519	437.0	1.850	0.0495	436.7	1.845	45
50	0.0586	441.3	1.872	0.0557	441.0	1.867	0.0530	440.7	1.862	0.0505	440.4	1.857	50
55	0.0597	445.0	1.884	0.0567	444.7	1.878	0.0540	444.4	1.873	0.0515	444.0	1.868	55
60	0.0608	448.6	1.895	0.0578	448.3	1.889	0.0550	448.0	1.884	0.0524	447.7	1.879	60
65	0.0619	452.3	1.906	0.0588	452.0	1.900	0.0560	451.7	1.895	0.0534	451.5	1.890	65
70	0.0630	456.0	1.916	0.0598	455.7	1.911	0.0570	455.5	1.906	0.0543	455.2	1.901	70
75	0.0640	459.7	1.927	0.0609	459.4	1.922	0.0579	459.2	1.917	0.0553	458.9	1.912	75
80	0.0651	463.4	1.938	0.0619	463.2	1.932	0.0589	462.9	1.927	0.0562	462.7	1.923	80
85	0.0662	467.2	1.948	0.0629	466.9	1.943	0.0599	466.7	1.938	0.0572	466.4	1.933	85
90	0.0672	470.9	1.959	0.0639	470.7	1.953	0.0609	470.5	1.949	0.0581	470.2	1.944	90
95	0.0683	474.7	1.969	0.0649	474.5	1.964	0.0618	474.2	1.959	0.0590	474.0	1.954	95
100	0.0693	478.5	1.979	0.0659	478.3	1.974	0.0628	478.0	1.969	0.0600	477.8	1.964	100
105	0.0704	482.3	1.989	0.0669	482.1	1.984	0.0638	481.9	1.979	0.0609	481.7	1.975	105
110	0.0714	486.1	1.999	0.0679	485.9	1.994	0.0647	485.7	1.989	0.0618	485.5	1.985	110
115	0.0724	490.0	2.009	0.0689	489.8	2.004	0.0657	489.6	1.999	0.0627	489.4	1.995	115
120	0.0735	493.8	2.019	0.0699	493.7	2.014	0.0666	493.5	2.009	0.0636	493.3	2.005	120
125	0.0745	497.7	2.029	0.0709	497.6	2.024	0.0675	497.4	2.019	0.0645	497.2	2.015	125
130	0.0755	501.7	2.039	0.0718	501.5	2.034	0.0685	501.3	2.029	0.0654	501.1	2.024	130
135	0.0766	505.6	2.049	0.0728	505.4	2.044	0.0694	505.2	2.039	0.0663	505.1	2.034	135
140	0.0776	509.5	2.058	0.0738	509.4	2.053	0.0704	509.2	2.048	0.0672	509.0	2.044	140
145	0.0786	513.5	2.068	0.0748	513.3	2.063	0.0713	513.2	2.058	0.0681	513.0	2.053	145
150	0.0796	517.5	2.077	0.0757	517.3	2.072	0.0722	517.2	2.068	0.0690	517.0	2.063	150
155	0.0806	521.5	2.087	0.0767	521.4	2.082	0.0731	521.2	2.077	0.0699	521.0	2.072	155
Temp °C	600 (5.86°C)			625 (7.18°C)			650 (8.46°C)			675 (9.71°C)			Temp °C
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.0393)	(407.2)	(1.742)	(0.0380)	(407.6)	(1.741)	(0.0363)	(408.0)	(1.739)	(0.0350)	(408.5)	(1.737)	
10	0.0402	410.3	1.754	0.0384	409.8	1.748	0.0366	409.2	1.743	0.0351	408.7	1.738	10
15	0.0413	414.1	1.767	0.0394	413.6	1.762	0.0377	413.1	1.757	0.0361	412.6	1.752	15
20	0.0423	417.8	1.780	0.0404	417.4	1.775	0.0387	416.9	1.770	0.0370	416.4	1.765	20
25	0.0433	421.5	1.792	0.0414	421.1	1.787	0.0396	420.7	1.782	0.0380	420.2	1.778	25
30	0.0443	425.2	1.805	0.0424	424.8	1.800	0.0406	424.4	1.795	0.0389	424.0	1.790	30
35	0.0453	428.9	1.817	0.0433	428.6	1.812	0.0415	428.2	1.807	0.0398	427.8	1.803	35
40	0.0463	432.6	1.829	0.0443	432.3	1.824	0.0424	431.9	1.819	0.0407	431.5	1.815	40
45	0.0473	436.3	1.840	0.0452	436.0	1.836	0.0433	435.6	1.831	0.0416	435.3	1.827	45
50	0.0482	440.0	1.852	0.0461	439.7	1.847	0.0442	439.4	1.843	0.0424	439.0	1.838	50
55	0.0492	443.7	1.863	0.0471	443.4	1.859	0.0451	443.1	1.854	0.0433	442.8	1.850	55
60	0.0501	447.5	1.874	0.0480	447.2	1.870	0.0460	446.8	1.865	0.0441	446.5	1.861	60
65	0.0510	451.2	1.886	0.0489	450.9	1.881	0.0468	450.6	1.877	0.0450	450.3	1.872	65
70	0.0520	454.9	1.897	0.0497	454.6	1.892	0.0477	454.4	1.888	0.0458	454.1	1.883	70
75	0.0529	458.7	1.907	0.0506	458.4	1.903	0.0486	458.1	1.899	0.0466	457.9	1.894	75
80	0.0538	462.4	1.918	0.0515	462.2	1.914	0.0494	461.9	1.909	0.0475	461.7	1.905	80
85	0.0547	466.2	1.929	0.0524	465.9	1.924	0.0503	465.7	1.920	0.0483	465.5	1.916	85
90	0.0556	470.0	1.939	0.0532	469.7	1.935	0.0511	469.5	1.931	0.0491	469.3	1.926	90
95	0.0565	473.8	1.950	0.0541	473.6	1.945	0.0519	473.3	1.941	0.0499	473.1	1.937	95
100	0.0574	477.6	1.960	0.0550	477.4	1.956	0.0527	477.2	1.951	0.0507	477.0	1.947	100
105	0.0582	481.5	1.970	0.0558	481.2	1.966	0.0536	481.0	1.962	0.0515	480.8	1.958	105
110	0.0591	485.3	1.980	0.0567	485.1	1.976	0.0544	484.9	1.972	0.0523	484.7	1.968	110
115	0.0600	489.2	1.990	0.0575	489.0	1.986	0.0552	488.8	1.982	0.0531	488.6	1.978	115
120	0.0609	493.1	2.000	0.0583	492.9	1.996	0.0560	492.7	1.992	0.0539	492.5	1.988	120
125	0.0617	497.0	2.010	0.0592	496.8	2.006	0.0568	496.6	2.002	0.0546	496.4	1.998	125
130	0.0626	500.9	2.020	0.0600	500.7	2.016	0.0576	500.6	2.012	0.0554	500.4	2.008	130
135	0.0635	504.9	2.030	0.0609	504.7	2.026	0.0584	504.5	2.021	0.0562	504.4	2.018	135
140	0.0643	508.9	2.039	0.0617	508.7	2.035	0.0592	508.5	2.031	0.0570	508.3	2.027	140
145	0.0652	512.8	2.049	0.0625	512.7	2.045	0.0600	512.5	2.041	0.0577	512.3	2.037	145
150	0.0661	516.9	2.059	0.0633	516.7	2.054	0.0608	516.5	2.050	0.0585	516.4	2.046	150
155	0.0669	520.9	2.068	0.0642	520.7	2.064	0.0616	520.6	2.060	0.0593	520.4	2.056	155
160	0.0678	524.9	2.077	0.0650	524.8	2.073	0.0624	524.6	2.069	0.0600	524.5	2.065	

Tabel B. 3 *Superheated vapor* R-22 tekanan konstan (Chemours, 2016)

Absolute Pressure kPa

Temp °C	700 (10.92°C)			725 (12.10°C)			750 (13.25°C)			775 (14.37°C)			Temp °C
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.0338)	(408.9)	(1.736)	(0.0326)	(409.2)	(1.734)	(0.0315)	(409.6)	(1.732)	(0.0305)	(410.0)	(1.731)	
15	0.0346	412.1	1.747	0.0332	411.5	1.742	0.0319	411	1.737	0.0306	410.5	1.733	15
20	0.0355	415.9	1.760	0.0341	415.5	1.755	0.0328	415	1.751	0.0315	414.5	1.747	20
25	0.0364	419.8	1.773	0.0350	419.3	1.769	0.0337	418.9	1.764	0.0324	418.4	1.760	25
30	0.0373	423.6	1.786	0.0359	423.2	1.781	0.0345	422.7	1.777	0.0332	422.3	1.773	30
35	0.0382	427.4	1.798	0.0367	427.0	1.794	0.0354	426.6	1.790	0.0341	426.2	1.785	35
40	0.0391	431.2	1.810	0.0376	430.8	1.806	0.0362	430.4	1.802	0.0349	430.0	1.798	40
45	0.0399	434.9	1.822	0.0384	434.6	1.818	0.0370	434.2	1.814	0.0357	433.9	1.810	45
50	0.0408	438.7	1.834	0.0392	438.4	1.830	0.0378	438.0	1.826	0.0365	437.7	1.822	50
55	0.0416	442.5	1.846	0.0401	442.1	1.842	0.0386	441.8	1.838	0.0372	441.5	1.834	55
60	0.0424	446.2	1.857	0.0409	445.9	1.853	0.0394	445.6	1.849	0.0380	445.3	1.845	60
65	0.0433	450.0	1.868	0.0417	449.7	1.864	0.0402	449.4	1.860	0.0387	449.1	1.857	65
70	0.0441	453.8	1.879	0.0424	453.5	1.875	0.0409	453.2	1.872	0.0395	453.0	1.868	70
75	0.0449	457.6	1.890	0.0432	457.3	1.886	0.0417	457.1	1.883	0.0402	456.8	1.879	75
80	0.0457	461.4	1.901	0.0440	461.1	1.897	0.0424	460.9	1.893	0.0410	460.6	1.890	80
85	0.0465	465.2	1.912	0.0448	465.0	1.908	0.0432	464.7	1.904	0.0417	464.5	1.901	85
90	0.0472	469.0	1.923	0.0455	468.8	1.919	0.0439	468.6	1.915	0.0424	468.3	1.911	90
95	0.0480	472.9	1.933	0.0463	472.6	1.929	0.0446	472.4	1.925	0.0431	472.2	1.922	95
100	0.0488	476.7	1.943	0.0470	476.5	1.940	0.0454	476.3	1.936	0.0438	476.1	1.932	100
105	0.0496	480.6	1.954	0.0478	480.4	1.950	0.0461	480.2	1.946	0.0445	480.0	1.943	105
110	0.0503	484.5	1.964	0.0485	484.3	1.960	0.0468	484.1	1.957	0.0452	483.9	1.953	110
115	0.0511	488.4	1.974	0.0493	488.2	1.970	0.0475	488.0	1.967	0.0459	487.8	1.963	115
120	0.0519	492.3	1.984	0.0500	492.1	1.980	0.0483	491.9	1.977	0.0466	491.7	1.973	120
125	0.0526	496.2	1.994	0.0507	496.1	1.990	0.0490	495.9	1.987	0.0473	495.7	1.983	125
130	0.0534	500.2	2.004	0.0515	500.0	2.000	0.0497	499.8	1.997	0.0480	499.7	1.993	130
135	0.0541	504.2	2.014	0.0522	504.0	2.010	0.0504	503.8	2.006	0.0487	503.6	2.003	135
140	0.0549	508.2	2.023	0.0529	508.0	2.020	0.0511	507.8	2.016	0.0494	507.6	2.013	140
145	0.0556	512.2	2.033	0.0536	512.0	2.029	0.0518	511.8	2.026	0.0501	511.7	2.022	145
150	0.0564	516.2	2.043	0.0544	516.0	2.039	0.0525	515.9	2.035	0.0507	515.7	2.032	150
155	0.0571	520.3	2.052	0.0551	520.1	2.049	0.0532	519.9	2.045	0.0514	519.8	2.042	155
160	0.0578	524.3	2.062	0.0558	524.2	2.058	0.0539	524.0	2.054	0.0521	523.9	2.051	160
165	0.0586	528.4	2.071	0.0565	528.2	2.067	0.0546	528.1	2.064	0.0528	527.9	2.060	165
Temp °C	800 (15.46°C)			850 (17.58°C)			900 (19.60°C)			950 (21.55°C)			Temp °C
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.0296)	(410.3)	(1.730)	(00278)	(410.9)	(1.727)	(0.0263)	(411.5)	(1.724)	(0.0249)	(412.1)	(1.722)	
20	0.0304	414.0	1.742	00282	412.9	1.734	0.0264	411.9	1.725	-	-	-	20
25	0.0312	417.9	1.756	00291	417.0	1.747	0.0272	416.0	1.739	0.0254	415.0	1.732	25
30	0.0321	421.9	1.769	00299	421.0	1.761	0.0279	420.1	1.753	0.0262	419.1	1.745	30
35	0.0329	425.8	1.781	00307	424.9	1.774	0.0287	424.1	1.766	0.0269	423.2	1.759	35
40	0.0337	429.6	1.794	00314	428.9	1.786	0.0294	428.1	1.779	0.0276	427.3	1.772	40
45	0.0344	433.5	1.806	00322	432.8	1.799	0.0301	432.0	1.791	0.0283	431.2	1.784	45
50	0.0352	437.3	1.818	00329	436.6	1.811	0.0308	435.9	1.804	0.0290	435.2	1.797	50
55	0.0360	441.2	1.830	00336	440.5	1.823	0.0315	439.8	1.816	0.0297	439.2	1.809	55
60	0.0367	445.0	1.841	00343	444.4	1.834	0.0322	443.7	1.827	0.0303	443.1	1.821	60
65	0.0374	448.8	1.853	00350	448.2	1.846	0.0329	447.6	1.839	0.0310	447.0	1.832	65
70	0.0382	452.7	1.864	00357	452.1	1.857	0.0335	451.5	1.850	0.0316	450.9	1.844	70
75	0.0389	456.5	1.875	0.0364	456.0	1.868	0.0342	455.4	1.862	0.0322	454.8	1.855	75
80	0.0396	460.4	1.886	0.0371	459.8	1.879	0.0348	459.3	1.873	0.0329	458.8	1.866	80
85	0.0403	464.2	1.897	0.0377	463.7	1.890	0.0355	463.2	1.884	0.0335	462.7	1.877	85
90	0.0410	468.1	1.908	0.0384	467.6	1.901	0.0361	467.1	1.894	0.0341	466.6	1.888	90
95	0.0417	471.9	1.918	0.0391	471.5	1.912	0.0368	471.0	1.905	0.0347	470.5	1.899	95
100	0.0424	475.8	1.929	0.0397	475.4	1.922	0.0374	474.9	1.916	0.0353	474.5	1.910	100
105	0.0431	479.7	1.939	0.0404	479.3	1.933	0.0380	478.9	1.926	0.0359	478.4	1.920	105
110	0.0437	483.7	1.950	0.0410	483.2	1.943	0.0386	482.8	1.937	0.0365	482.4	1.931	110
115	0.0444	487.6	1.960	0.0417	487.2	1.953	0.0392	486.8	1.947	0.0370	486.4	1.941	115
120	0.0451	491.5	1.970	0.0423	491.1	1.963	0.0398	490.7	1.957	0.0376	490.3	1.951	120
125	0.0458	495.5	1.980	0.0430	495.1	1.973	0.0404	494.7	1.967	0.0382	494.3	1.961	125
130	0.0464	499.5	1.990	0.0436	499.1	1.983	0.0410	498.7	1.977	0.0388	498.4	1.971	130
135	0.0471	503.5	2.000	0.0442	503.1	1.993	0.0416	502.7	1.987	0.0393	502.4	1.981	135
140	0.0478	507.5	2.009	0.0448	507.1	2.003	0.0422	506.8	1.997	0.0399	506.4	1.991	140
145	0.0484	511.5	2.019	0.0455	511.2	2.013	0.0428	510.8	2.007	0.0405	510.5	2.001	145
150	0.0491	515.6	2.029	0.0461	515.2	2.022	0.0434	514.9	2.016	0.0410	514.6	2.010	150
155	0.0497	519.6	2.038	0.0467	519.3	2.032	0.0440	519.0	2.026	0.0416	518.7	2.020	155
160	0.0504	523.7	2.048	0.0473	523.4	2.041	0.0446	523.1	2.035	0.0422	522.8	2.030	160
165	0.0511	527.8	2.057	0.0480	527.5	2.051	0.0452	527.2	2.045	0.0427	526.9	2.039	165
170	0.0517	531.9	2.066	0.0486	531.6	2.060	0.0458	531.3	2.054	0.0433	531.0	2.048	170

Tabel B. 4 *Superheated vapor* R-22 tekanan konstan (Chemours, 2016)

Temp °C	Absolute Pressure kPa												Temp °C
	1400			1500			1600			1700			
	(36.31°C)			(39.10°C)			(41.75°C)			(44.28°C)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.0167)	(415.6)	(1.703)	(0.0155)	(416.1)	(1.700)	(0.0144)	(416.5)	(1.696)	(0.0135)	(416.9)	(1.693)	
40	0.0171	419.1	1.714	0.0156	417.0	1.702	-	-	-	-	-	-	40
45	0.0177	423.7	1.729	0.0162	421.8	1.718	0.0148	419.8	1.706	0.0136	417.6	1.695	45
50	0.0183	428.2	1.743	0.0167	426.4	1.732	0.0153	424.6	1.721	0.0141	422.6	1.711	50
55	0.0188	432.5	1.756	0.0172	430.9	1.746	0.0159	429.2	1.736	0.0146	427.5	1.726	55
60	0.0193	436.9	1.769	0.0177	435.4	1.759	0.0164	433.8	1.750	0.0151	432.2	1.740	60
65	0.0198	441.1	1.782	0.0182	439.7	1.772	0.0168	438.3	1.763	0.0156	436.8	1.754	65
70	0.0203	445.3	1.795	0.0187	444.0	1.785	0.0173	442.7	1.776	0.0160	441.2	1.767	70
75	0.0208	449.5	1.807	0.0192	448.3	1.797	0.0177	447.0	1.788	0.0165	445.7	1.780	75
80	0.0213	453.7	1.819	0.0196	452.5	1.809	0.0182	451.3	1.801	0.0169	450.0	1.792	80
85	0.0217	457.8	1.830	0.0201	456.7	1.821	0.0186	455.6	1.813	0.0173	454.4	1.804	85
90	0.0222	462.0	1.842	0.0205	460.9	1.833	0.0190	459.8	1.824	0.0177	458.7	1.816	90
95	0.0226	466.1	1.853	0.0209	465.1	1.844	0.0194	464.0	1.836	0.0181	463.0	1.828	95
100	0.0231	470.2	1.864	0.0213	469.2	1.855	0.0198	468.2	1.847	0.0185	467.2	1.839	100
105	0.0235	474.3	1.875	0.0218	473.4	1.866	0.0202	472.4	1.858	0.0189	471.5	1.851	105
110	0.0239	478.4	1.886	0.0222	477.5	1.877	0.0206	476.6	1.869	0.0193	475.7	1.862	110
115	0.0244	482.6	1.896	0.0226	481.7	1.888	0.0210	480.8	1.880	0.0196	479.9	1.873	115
120	0.0248	486.7	1.907	0.0230	485.8	1.899	0.0214	485.0	1.891	0.0200	484.1	1.884	120
125	0.0252	490.8	1.917	0.0234	490.0	1.909	0.0218	489.2	1.902	0.0204	488.3	1.894	125
130	0.0256	494.9	1.928	0.0238	494.1	1.920	0.0222	493.4	1.912	0.0207	492.6	1.905	130
135	0.0260	499.1	1.938	0.0242	498.3	1.930	0.0225	497.5	1.922	0.0211	496.8	1.915	135
140	0.0265	503.2	1.948	0.0246	502.5	1.940	0.0229	501.7	1.933	0.0214	501.0	1.925	140
145	0.0269	507.4	1.958	0.0249	506.7	1.950	0.0233	505.9	1.943	0.0218	505.2	1.936	145
150	0.0273	511.5	1.968	0.0253	510.9	1.960	0.0236	510.2	1.953	0.0221	509.5	1.946	150
155	0.0277	515.7	1.978	0.0257	515.1	1.970	0.0240	514.4	1.963	0.0225	513.7	1.956	155
160	0.0281	519.9	1.987	0.0261	519.3	1.980	0.0243	518.6	1.972	0.0228	518.0	1.965	160
165	0.0285	524.1	1.997	0.0264	523.5	1.989	0.0247	522.9	1.982	0.0231	522.2	1.975	165
170	0.0289	528.3	2.007	0.0268	527.7	1.999	0.0250	527.1	1.992	0.0235	526.5	1.985	170
175	0.0292	532.6	2.016	0.0272	532.0	2.009	0.0254	531.4	2.001	0.0238	530.8	1.995	175
180	0.0296	536.8	2.026	0.0276	536.2	2.018	0.0257	535.6	2.011	0.0241	535.1	2.004	180
185	0.0300	541.1	2.035	0.0279	540.5	2.027	0.0261	539.9	2.020	0.0245	539.4	2.014	185
190	0.0304	545.3	2.044	0.0283	544.8	2.037	0.0264	544.2	2.030	0.0248	543.7	2.023	190