

## PROPRIETE THERMODYNAMIQUE DU CO<sub>2</sub>

T	$\tilde{C}_p^0(T)$	$\tilde{s}_l^0(T)$	$\tilde{h}_l^0(T)$	$\tilde{h}_s^0(T)$	$\Delta\tilde{h}_f^0(T)$	$\Delta\tilde{G}_f^0(T)$	log K <sub>p</sub> (T)
0	0	0	Infinie	-9,364	-393,151	-393,151	Infinie
100	29,208	179,009	243,568	-6,456	-393,208	-393,683	205,639
200	32,359	199,975	217,046	-3,414	-393,404	-394,085	102,924
298,15	37,129	213,795	213,795	0	-393,522	-394,389	69,095
300	37,221	214,025	213,795	0,069	-393,523	-394,394	68,67
400	41,325	225,314	215,307	4,003	-393,583	-394,675	51,539
500	44,627	234,901	218,29	8,305	-393,666	-394,939	41,259
600	47,321	243,283	221,772	12,907	-393,803	-395,182	34,404
700	49,564	250,75	225,388	17,754	-393,983	-395,398	29,505
800	51,434	257,494	228,986	22,806	-394,188	-395,586	25,829
900	52,999	263,645	232,5	28,03	-394,405	-395,748	22,969
1000	54,308	269,299	235,901	33,397	-394,623	-395,886	20,679
1100	55,409	274,528	239,178	38,884	-394,838	-396,001	18,805
1200	56,342	279,39	242,329	44,473	-395,05	-396,098	17,242
1300	57,137	283,932	245,356	50,148	-395,257	-396,177	15,919
1400	57,802	288,191	248,265	55,896	-395,462	-396,24	14,784
1500	58,379	292,199	251,062	61,705	-395,668	-396,288	13,8
1600	58,886	295,983	253,753	67,569	-395,876	-396,323	12,939
1700	59,317	299,566	256,343	73,48	-396,09	-396,344	12,178
1800	59,701	302,968	258,84	79,431	-396,311	-396,353	11,502
1900	60,049	306,205	261,248	85,419	-396,542	-396,349	10,896
2000	60,35	309,293	263,574	91,439	-396,784	-396,333	10,351
2100	60,622	312,244	265,822	97,488	-397,039	-396,304	9,858
2200	60,865	315,07	267,996	103,562	-397,309	-396,262	9,408
2300	61,086	317,781	270,102	109,66	-397,596	-396,209	8,998
2400	61,287	320,385	272,144	115,779	-397,9	-396,142	8,622
2500	61,471	322,89	274,124	121,917	-398,222	-396,062	8,275
2600	61,647	325,305	276,046	128,073	-398,562	-395,969	7,955
2700	61,802	327,634	277,914	134,246	-398,921	-395,862	7,658
2800	61,952	329,885	279,73	140,433	-399,299	-395,742	7,383
2900	62,095	332,061	281,497	146,636	-399,695	-395,609	7,126
3000	62,229	334,169	283,218	152,852	-400,111	-395,461	6,886
3100	62,347	336,211	284,895	159,081	-400,545	-395,298	6,661
3200	62,462	338,192	286,529	165,321	-400,998	-395,122	6,45
3300	62,573	340,116	288,124	171,573	-401,47	-394,932	6,251
3400	62,681	341,986	289,681	177,836	-401,96	-394,726	6,064
3500	62,785	343,804	291,202	184,109	-402,467	-394,506	5,888
3600	62,884	345,574	292,687	190,393	-402,991	-394,271	5,721
3700	62,98	347,299	294,14	196,686	-403,532	-394,022	5,563
3800	63,074	348,979	295,561	202,989	-404,089	-393,756	5,413
3900	63,166	350,619	296,952	209,301	-404,662	-393,477	5,27
4000	63,254	352,219	298,314	215,622	-405,251	-393,183	5,134
4100	63,341	353,782	299,648	221,951	-405,856	-392,874	5,005
4200	63,426	355,31	300,955	228,29	-406,475	-392,55	4,882
4300	63,509	356,803	302,236	234,637	-407,11	-392,21	4,764
4400	63,588	358,264	303,493	240,991	-407,76	-391,857	4,652

4500	63,667	359,694	304,726	247,354	-408,426	-391,488	4,544
4600	63,745	361,094	305,937	253,725	-409,106	-391,105	4,441
4700	63,823	362,466	307,125	260,103	-409,802	-390,706	4,342
4800	63,893	363,81	308,292	266,489	-410,514	-390,292	4,247
4900	63,968	365,128	309,438	272,882	-411,242	-389,862	4,156
5000	64,046	366,422	310,565	279,283	-411,986	-389,419	4,068
5100	64,128	367,691	311,673	285,691	-412,746	-388,959	3,984
5200	64,22	368,937	312,762	292,109	-413,522	-388,486	3,902
5300	64,312	370,161	313,833	298,535	-414,314	-387,996	3,824
5400	64,404	371,364	314,888	304,971	-415,123	-387,493	3,748
5500	64,496	372,547	315,925	311,416	-415,949	-386,974	3,675
5600	64,588	373,709	316,947	317,87	-416,794	-386,439	3,605
5700	64,68	374,853	317,953	324,334	-417,658	-385,89	3,536
5800	64,772	375,979	318,944	330,806	-418,541	-385,324	3,47
5900	64,865	377,087	319,92	337,288	-419,445	-384,745	3,406
6000	64,957	378,178	320,882	343,779	-420,372	-384,148	3,344

## PROPRIETE THERMODYNAMIQUE DU H<sub>2</sub>O

T	$\tilde{C}_p^0(T)$	$\tilde{s}_l^0(T)$	$\tilde{h}_l^0(T)$	$\tilde{h}_s^0(T)$	$\Delta\tilde{h}_f^0(T)$	$\Delta\tilde{G}_f^0(T)$	log K <sub>p</sub> (T)
0	0	0	Infinie	-9,904	-238,921	-238,921	Infinie
100	33,299	152,388	218,534	-6,615	-240,083	-236,584	123,579
200	33,349	175,485	191,896	-3,282	-240,9	-232,766	60,792
298,15	33,59	188,834	188,834	0	-241,826	-228,582	40,047
300	33,596	189,042	188,835	0,062	-241,844	-228,5	39,785
400	34,262	198,788	190,159	3,452	-242,846	-223,901	29,238
500	35,226	206,534	192,685	6,925	-243,826	-219,051	22,884
600	36,325	213,052	195,55	10,501	-244,758	-214,007	18,631
700	37,495	218,739	198,465	14,192	-245,632	-208,812	15,582
800	38,721	223,825	201,322	18,002	-246,443	-203,496	13,287
900	39,987	228,459	204,084	21,938	-247,185	-198,083	11,496
1000	41,268	232,738	206,738	26	-247,857	-192,59	10,06
1100	42,536	236,731	209,285	30,191	-248,46	-187,033	8,881
1200	43,768	240,485	211,73	34,506	-248,997	-181,425	7,897
1300	44,945	244,035	214,08	38,942	-249,473	-175,774	7,063
1400	46,054	247,407	216,341	43,493	-249,894	-170,089	6,346
1500	47,09	250,62	218,52	48,151	-250,265	-164,376	5,724
1600	48,05	253,69	220,623	52,908	-250,592	-158,639	5,179
1700	48,935	256,63	222,655	57,758	-250,881	-152,883	4,698
1800	49,749	259,451	224,621	62,693	-251,138	-147,111	4,269
1900	50,496	262,161	226,526	67,706	-251,368	-141,325	3,885
2000	51,18	264,769	228,374	72,79	-251,575	-135,528	3,54
2100	51,823	267,282	230,167	77,941	-251,762	-129,721	3,227
2200	52,408	269,706	231,909	83,153	-251,934	-123,905	2,942
2300	52,947	272,048	233,604	88,421	-252,092	-118,082	2,682
2400	53,444	274,312	235,253	93,741	-252,239	-112,252	2,443
2500	53,904	276,503	236,86	99,108	-252,379	-106,416	2,223
2600	54,329	278,625	238,425	104,52	-252,513	-100,575	2,021
2700	54,723	280,683	239,952	109,973	-252,643	-94,729	1,833
2800	55,089	282,68	241,443	115,464	-252,771	-88,878	1,658
2900	55,43	284,619	242,899	120,99	-252,897	-83,023	1,495
3000	55,748	286,504	244,321	126,549	-253,024	-77,163	1,344
3100	56,044	288,337	245,711	132,139	-253,152	-71,298	1,201
3200	56,323	290,12	247,071	137,757	-253,282	-65,43	1,068
3300	56,583	291,858	248,402	143,403	-253,416	-59,558	0,943
3400	56,828	293,55	249,705	149,073	-253,553	-53,681	0,825
3500	57,058	295,201	250,982	154,768	-253,696	-47,801	0,713
3600	57,276	296,812	252,233	160,485	-253,844	-41,916	0,608
3700	57,48	298,384	253,459	166,222	-253,997	-36,027	0,509
3800	57,675	299,919	254,661	171,98	-254,158	-30,133	0,414
3900	57,859	301,42	255,841	177,757	-254,326	-24,236	0,325
4000	58,033	302,887	256,999	183,552	-254,501	-18,334	0,239
4100	58,199	304,322	258,136	189,363	-254,684	-12,427	0,158
4200	58,357	305,726	259,252	195,191	-254,876	-6,516	0,081
4300	58,507	307,101	260,349	201,034	-255,078	-0,6	0,007
4400	58,65	308,448	261,427	206,892	-255,288	5,32	-0,063

4500	58,787	309,767	262,486	212,764	-255,508	11,245	-0,131
4600	58,918	311,061	263,528	218,65	-255,738	17,175	-0,195
4700	59,044	312,329	264,553	224,548	-255,978	23,111	-0,257
4800	59,164	313,574	265,562	230,458	-256,229	29,052	-0,316
4900	59,275	314,795	266,554	236,38	-256,491	34,998	-0,373
5000	59,39	315,993	267,531	242,313	-256,763	40,949	-0,428
5100	59,509	317,171	268,493	248,258	-257,046	46,906	-0,48
5200	59,628	318,327	269,44	254,215	-257,338	52,869	-0,531
5300	59,746	319,464	270,373	260,184	-257,639	58,838	-0,58
5400	59,864	320,582	271,293	266,164	-257,95	64,811	-0,627
5500	59,982	321,682	272,199	272,157	-258,268	70,791	-0,672
5600	60,1	322,764	273,092	278,161	-258,595	76,777	-0,716
5700	60,218	323,828	273,973	284,177	-258,93	82,769	-0,758
5800	60,335	324,877	274,841	290,204	-259,272	88,767	-0,799
5900	60,453	325,909	275,698	296,244	-259,621	94,77	-0,839
6000	60,571	326,926	276,544	302,295	-259,977	100,78	-0,877

## PROPRIETE THERMODYNAMIQUE DU O<sub>2</sub>

T	$\tilde{C}_p^0(T)$	$\tilde{s}_l^0(T)$	$\tilde{h}_l^0(T)$	$\tilde{h}_s^0(T)$	$\Delta\tilde{h}_f^0(T)$	$\Delta\tilde{G}_f^0(T)$	$\log K_p(T)$
0	0	0	Infinie	-8,683	0	0	0
100	29,106	173,307	231,094	-5,779	0	0	0
200	29,126	193,485	207,823	-2,868	0	0	0
298,15	29,376	205,147	205,147	0	0	0	0
300	29,385	205,329	205,148	0,054	0	0	0
400	30,106	213,871	206,308	3,025	0	0	0
500	31,091	220,693	208,524	6,084	0	0	0
600	32,09	226,451	211,044	9,244	0	0	0
700	32,981	231,466	213,611	12,499	0	0	0
800	33,733	235,921	216,126	15,835	0	0	0
900	34,355	239,931	218,552	19,241	0	0	0
1000	34,87	243,578	220,875	22,703	0	0	0
1100	35,3	246,922	223,093	26,212	0	0	0
1200	35,667	250,01	225,209	29,761	0	0	0
1300	35,988	252,878	227,229	33,344	0	0	0
1400	36,277	255,556	229,158	36,957	0	0	0
1500	36,544	258,068	231,002	40,599	0	0	0
1600	36,796	260,434	232,768	44,266	0	0	0
1700	37,04	262,672	234,462	47,958	0	0	0
1800	37,277	264,796	236,089	51,673	0	0	0
1900	37,51	266,818	237,653	55,413	0	0	0
2000	37,741	268,748	239,16	59,175	0	0	0
2100	37,969	270,595	240,613	62,961	0	0	0
2200	38,195	272,366	242,017	66,769	0	0	0
2300	38,419	274,069	243,374	70,6	0	0	0
2400	38,639	275,709	244,687	74,453	0	0	0
2500	38,856	277,29	245,959	78,328	0	0	0
2600	39,068	278,819	247,194	82,224	0	0	0
2700	39,276	280,297	248,393	86,141	0	0	0
2800	39,478	281,729	249,558	90,079	0	0	0
2900	39,674	283,118	250,691	94,036	0	0	0
3000	39,864	284,466	251,795	98,013	0	0	0
3100	40,048	285,776	252,87	102,009	0	0	0
3200	40,225	287,05	253,918	106,023	0	0	0
3300	40,395	288,291	254,941	110,054	0	0	0
3400	40,559	289,499	255,94	114,102	0	0	0
3500	40,716	290,677	256,916	118,165	0	0	0
3600	40,868	291,826	257,87	122,245	0	0	0
3700	41,013	292,948	258,802	126,339	0	0	0
3800	41,154	294,044	259,716	130,447	0	0	0
3900	41,289	295,115	260,61	134,569	0	0	0
4000	41,421	296,162	261,485	138,705	0	0	0
4100	41,549	297,186	262,344	142,854	0	0	0
4200	41,674	298,189	263,185	147,015	0	0	0
4300	41,798	299,171	264,011	151,188	0	0	0
4400	41,92	300,133	264,821	155,374	0	0	0

4500	42,042	301,076	265,616	159,572	0	0	0
4600	42,164	302,002	266,397	163,783	0	0	0
4700	42,287	302,91	267,164	168,005	0	0	0
4800	42,413	303,801	267,918	172,24	0	0	0
4900	42,542	304,677	268,66	176,488	0	0	0
5000	42,675	305,538	269,389	180,749	0	0	0
5100	42,813	306,385	270,106	185,023	0	0	0
5200	42,956	307,217	270,811	189,311	0	0	0
5300	43,105	308,037	271,506	193,614	0	0	0
5400	43,262	308,844	272,19	197,933	0	0	0
5500	43,426	309,639	272,864	202,267	0	0	0
5600	43,599	310,424	273,527	206,618	0	0	0
5700	43,781	311,197	274,181	210,987	0	0	0
5800	43,973	311,96	274,826	215,375	0	0	0
5900	44,175	312,713	275,462	219,782	0	0	0
6000	44,387	313,457	276,089	224,21	0	0	0

## PROPRIETE THERMODYNAMIQUE DU N<sub>2</sub>

T	$\tilde{C}_p^0(T)$	$\tilde{s}_l^0(T)$	$\tilde{h}_l^0(T)$	$\tilde{h}_s^0(T)$	$\Delta\tilde{h}_f^0(T)$	$\Delta\tilde{G}_f^0(T)$	$\log K_p(T)$
0	0	0	Infinie	-8,67	0	0	0
100	29,104	159,811	217,49	-5,768	0	0	0
200	29,107	179,985	194,272	-2,857	0	0	0
298,15	29,124	191,609	191,609	0	0	0	0
300	29,125	191,789	191,61	0,054	0	0	0
400	29,249	200,181	192,753	2,971	0	0	0
500	29,58	206,739	194,917	5,911	0	0	0
600	30,11	212,176	197,353	8,894	0	0	0
700	30,754	216,866	199,813	11,937	0	0	0
800	31,433	221,017	202,209	15,046	0	0	0
900	32,09	224,757	204,51	18,223	0	0	0
1000	32,697	228,17	206,708	21,463	0	0	0
1100	33,241	231,313	208,804	24,76	0	0	0
1200	33,723	234,226	210,802	28,109	0	0	0
1300	34,147	236,943	212,71	31,503	0	0	0
1400	34,518	239,487	214,533	34,936	0	0	0
1500	34,843	241,88	216,277	38,405	0	0	0
1600	35,128	244,138	217,948	41,904	0	0	0
1700	35,378	246,275	219,552	45,429	0	0	0
1800	35,6	248,304	221,094	48,978	0	0	0
1900	35,796	250,234	222,577	52,548	0	0	0
2000	35,971	252,074	224,006	56,137	0	0	0
2100	36,126	253,833	225,385	59,742	0	0	0
2200	36,268	255,517	226,717	63,361	0	0	0
2300	36,395	257,132	228,004	66,995	0	0	0
2400	36,511	258,684	229,25	70,64	0	0	0
2500	36,616	260,176	230,458	74,296	0	0	0
2600	36,713	261,614	231,629	77,963	0	0	0
2700	36,801	263,001	232,765	81,639	0	0	0
2800	36,883	264,341	233,869	85,323	0	0	0
2900	36,959	265,637	234,942	89,015	0	0	0
3000	37,03	266,891	235,986	92,715	0	0	0
3100	37,096	268,106	237,003	96,421	0	0	0
3200	37,158	269,285	237,993	100,134	0	0	0
3300	37,216	270,429	238,959	103,852	0	0	0
3400	37,271	271,541	239,901	107,577	0	0	0
3500	37,323	272,622	240,821	111,306	0	0	0
3600	37,373	273,675	241,719	115,041	0	0	0
3700	37,42	274,699	242,596	118,781	0	0	0
3800	37,465	275,698	243,454	122,525	0	0	0
3900	37,508	276,671	244,294	126,274	0	0	0
4000	37,55	277,622	245,115	130,027	0	0	0
4100	37,59	278,549	245,919	133,784	0	0	0
4200	37,629	279,456	246,707	137,545	0	0	0
4300	37,666	280,341	247,479	141,309	0	0	0
4400	37,702	281,208	248,236	145,078	0	0	0

4500	37,738	282,056	248,978	148,85	0	0	0
4600	37,773	282,885	249,706	152,625	0	0	0
4700	37,808	283,698	250,42	156,405	0	0	0
4800	37,843	284,494	251,122	160,187	0	0	0
4900	37,878	285,275	251,811	163,973	0	0	0
5000	37,912	286,041	252,488	167,763	0	0	0
5100	37,947	286,792	253,153	171,556	0	0	0
5200	37,981	287,529	253,807	175,352	0	0	0
5300	38,013	288,253	254,451	179,152	0	0	0
5400	38,046	288,964	255,083	182,955	0	0	0
5500	38,08	289,662	255,705	186,761	0	0	0
5600	38,116	290,348	256,318	190,571	0	0	0
5700	38,154	291,023	256,921	194,384	0	0	0
5800	38,193	291,687	257,515	198,201	0	0	0
5900	38,234	292,341	258,099	202,023	0	0	0
6000	38,276	292,984	258,675	205,848	0	0	0