

TABLE VI. Pressure (in kilobars) of argon at round values of molar volume and temperature.

V (cm ³ /mole)	T										
	200°K	190°K	180°K	170°K	160°K	150°K	140°K	130°K	120°K	110°K	100°K
42.0	0.395	0.335	0.273	0.212							
41.0	0.426	0.362	0.298	0.232							
40.0	0.463	0.394	0.327	0.257							
39.0	0.506	0.432	0.360	0.288	0.214						
38.0	0.557	0.478	0.401	0.324	0.245						
37.0	0.618	0.534	0.450	0.367	0.283						
36.0	0.691	0.601	0.510	0.420	0.331	0.240					
35.0	0.780	0.681	0.584	0.486	0.390	0.292					
34.0	0.887	0.780	0.675	0.569	0.464	0.357	0.247				
33.0	1.016	0.901	0.787	0.674	0.559	0.442	0.322	0.201			
32.0	1.173	1.048	0.926	0.805	0.680	0.551	0.419	0.285			
31.0	1.366	1.229	1.093	0.964	0.831	0.690	0.545	0.398	0.250		
30.0	1.603	1.455	1.307	1.162	1.019	0.866	0.708	0.547	0.384	0.218	
29.0	1.900	1.738	1.577	1.418	1.258	1.092	0.920	0.744	0.564	0.382	
28.0	2.270	2.094	1.916	1.741	1.569	1.384	1.195	1.004	0.807	0.601	0.397
27.0	2.743	2.548	2.353	2.157	1.971	1.761	1.557	1.345	1.129	0.904	0.667
26.0	3.346	3.132	2.915	2.702	2.491	2.265	2.034	1.796	1.564		
25.0	4.117	3.883	3.636	3.400	3.167	2.921	2.655				
24.0	5.143	4.863	4.578	4.304							

TABLE VII. Molar entropy (in joules per mole·°K) of argon at round values of molar volume and temperature.

V (cm ³ /mole)	T										
	200°K	190°K	180°K	170°K	160°K	150°K	140°K	130°K	120°K	110°K	100°K
42.0	84.2	83.4	82.6	81.7							
41.0	83.6	82.8	82.0	81.0							
40.0	82.9	82.1	81.3	80.4							
39.0	82.2	81.4	80.6	79.6	78.7						
38.0	81.5	80.7	79.8	78.9	77.9						
37.0	80.6	79.9	79.1	78.1	77.1						
36.0	79.8	79.0	78.2	77.2	76.2	75.0					
35.0	78.8	78.1	77.2	76.3	75.2	74.0					
34.0	77.8	77.0	76.2	75.3	74.2	73.0	71.9				
33.0	76.7	75.9	75.1	74.2	73.1	71.9	70.7	69.4			
32.0	75.4	74.7	73.9	73.0	71.9	70.6	69.4	68.1			
31.0	74.1	73.4	72.7	71.7	70.5	69.2	68.1	66.7	65.1		
30.0	72.7	72.0	71.3	70.3	69.1	67.8	66.5	65.1	63.5	61.7	
29.0	71.2	70.5	69.7	68.8	67.6	66.1	64.9	63.4	61.8	59.9	
28.0	69.5	68.8	68.1	67.1	65.8	64.4	63.1	61.6	59.8	57.9	55.7
27.0	67.6	67.0	66.2	65.2	64.0	62.4	61.1	59.5	57.8	55.7	53.5
26.0	65.6	64.9	64.1	63.2	61.9	60.3	58.9	57.3	55.5		
25.0	63.4	62.6	61.9	60.9	59.6	57.8	56.3				
24.0	60.8	60.0	59.3	58.4							

TABLE VIII. Molar energy (in joules per mole) of argon at round values of molar volume and temperature.

V (cm ³ /mole)	T										
	200°K	190°K	180°K	170°K	160°K	150°K	140°K	130°K	120°K	110°K	100°K
42.0	-1041	-1198	-1358	-1520							
41.0	-1126	-1280	-1441	-1607							
40.0	-1215	-1368	-1529	-1696							
39.0	-1310	-1461	-1621	-1788	-1943						
38.0	-1409	-1559	-1718	-1886	-2047						
37.0	-1514	-1663	-1819	-1986	-2154						
36.0	-1623	-1774	-1928	-2093	-2265	-2445					
35.0	-1741	-1888	-2044	-2207	-2381	-2567					
34.0	-1864	-2009	-2163	-2327	-2501	-2691	-2854				
33.0	-1992	-2135	-2288	-2453	-2628	-2822	-2991	-3129			
32.0	-2125	-2263	-2416	-2582	-2762	-2961	-3130	-3273			
31.0	-2262	-2396	-2544	-2713	-2900	-3102	-3277	-3423	-3623		
30.0	-2399	-2530	-2677	-2842	-3035	-3248	-3428	-3577	-3781	-3992	
29.0	-2533	-2663	-2810	-2976	-3171	-3393	-3579	-3733	-3940	-4158	
28.0	-2661	-2792	-2937	-3104	-3306	-3534	-3728	-3889	-4103	-4324	-4555
27.0	-2778	-2913	-3058	-3225	-3432	-3669	-3870	-4036	-4258	-4492	-4722
26.0	-2883	-3019	-3165	-3331	-3542	-3795	-4002	-4168	-4399		
25.0	-2959	-3102	-3245	-3408	-3628	-3901	-4127				
24.0	-3003	-3159	-3299	-3452							

TABLE IX. Thermodynamic functions of argon at the melting curve.^a

T_m	P_m	V_{fl}	V_{sol}	ΔV_m	ΔS_m	S_{fl}	S_{sol}	U_{fl}	U_{sol}
100	0.687	26.94	24.22	2.72	12.1	53.4	41.3	-4733	-5750
110	1.146	26.39	23.96	2.44	11.5	54.3	42.8	-4590	-5580
120	1.630	25.89	23.66	2.23	11.0	55.2	44.1	-4415	-5380
130	2.136	25.42	23.38	2.04	10.5	55.9	45.3	-4243	-5180
140	2.662	25.01	23.07	1.93	10.4	56.3	45.9	-4126	-5070
150	3.210	24.62	22.80	1.82	10.2	56.9	46.7	-3929	-4870
160	3.781	24.26	22.54	1.72	10.0	57.8	47.8	-3660	-4610
170	4.374	23.94	22.31	1.63	9.9	58.3	48.4	-3454	-4420
180	4.987	23.66	22.10	1.56	9.6	58.3	48.7	-3319	-4270
190	5.614	23.38	21.90	1.49	9.4	58.2	48.8	-3187	-4130
200	6.250	23.13	21.71	1.42	9.1	58.3	49.2	-3016	-3950

^a Temperature is in degrees Kelvin, pressure is in kilobars, volumes are in cubic centimeters per mole, entropies are in joules per mole-°K, and energies are in joules per mole.