

VAPOR PRESSURE OF THE METALLIC ELEMENTS — DATA

The following values of the vapor pressure of metallic elements are given in pascals. For conversion, note that 1 Pa = 7.50 μmHg are calculated from the equations in the preceding table. All values = 9.87·10⁻⁶ atm.

Metal	mp/K	Vapor Pressure in Pa												
		400 K	600 K	800 K	1000 K	1200 K	1400 K	1600 K	1800 K	2000 K	2200 K	2400 K		
Aluminum	933			3.06×10 ⁻¹⁰	5.08×10 ⁻⁶	0.00256	0.218	6.10	81.4					
Americium	1449			3.88×10 ⁻⁷	0.00167	0.423	21.35							
Barium	1000		7.97×10 ⁻⁶	0.0450	7.11	162								
Beryllium	1560			3.04×10 ⁻¹⁰	4.96×10 ⁻⁶	0.00314	0.312	9.12	113					
Cadmium	594	0.000280	18.2											
Calcium	1115		2.36×10 ⁻⁵	0.146	25.5									
Cerium	1071				2.47×10 ⁻¹¹	8.91×10 ⁻⁸	2.97×10 ⁻⁵	0.00233	0.0691	1.04	9.56	60.8		
Cesium	302	0.394												
Chromium	2180				2.45×10 ⁻⁸	7.59×10 ⁻⁵	0.0239	1.80	52.1	774				
Cobalt	1768				2.09×10 ⁻¹⁰	1.00×10 ⁻⁶	0.000419	0.0379	1.15	16.0				
Copper	1358			6.60×10 ⁻¹¹	1.53×10 ⁻⁶	0.00122	0.135	3.94	54.4					
Curium	1618				1.90×10 ⁻⁹	4.24×10 ⁻⁶	0.00103	0.0629	1.17	12.1	82.1			
Dysprosium	1685			1.54×10 ⁻⁸	8.21×10 ⁻⁵	0.0241	1.362	27.5						
Erbium	1802			3.90×10 ⁻¹⁰	4.30×10 ⁻⁶	0.00205	0.163	4.23	52.5					
Europium	1095		1.74×10 ⁻⁵	0.109	19.4									
Gadolinium	1586				5.70×10 ⁻¹⁰	1.54×10 ⁻⁶	0.000429	0.0279	0.618	7.39	56.2			
Gallium	303			1.94×10 ⁻⁷	0.000565	0.114	4.98	84.4						
Gold	1337				3.72×10 ⁻⁸	5.44×10 ⁻⁵	0.00920	0.374	6.68	67.0				
Hafnium	2506						1.35×10 ⁻¹¹	9.81×10 ⁻⁹	1.63×10 ⁻⁶	9.69×10 ⁻⁵	0.00272	0.0437		
Holmium	1747			3.20×10 ⁻⁹	2.32×10 ⁻⁵	0.00837	0.546	12.3						
Indium	430		8.31×10 ⁻¹¹	1.08×10 ⁻⁵	0.0127	1.413	40.9							
Iridium	2719							1.48×10 ⁻⁹	3.72×10 ⁻⁷	3.06×10 ⁻⁵	0.00112	0.0225		
Iron	1811				5.54×10 ⁻⁹	2.51×10 ⁻⁵	0.0104	0.961	32.7	36.8				
Lanthanum	1191					5.09×10 ⁻⁸	2.02×10 ⁻⁵	0.00181	0.0596	0.976	9.61	64.7		
Lead	601		5.54×10 ⁻⁷	0.00618	1.64	68.1								
Lithium	454	7.90×10 ⁻¹¹	0.000489	1.08	109									
Lutetium	1936				3.28×10 ⁻¹¹	1.59×10 ⁻⁷	6.79×10 ⁻⁵	0.00628	0.211	3.18	26.7			
Magnesium	923	6.53×10 ⁻⁹	0.0152	21.5										
Manganese	1519			5.55×10 ⁻⁷	0.00221	0.524	24.9							
Mercury	234	140												
Molybdenum	2895							1.83×10 ⁻⁹	4.07×10 ⁻⁷	3.03×10 ⁻⁵	0.00102	0.0189		
Neodymium	1294			4.55×10 ⁻¹¹	7.62×10 ⁻⁷	0.000483	0.0412	1.07	13.4	101				
Neptunium	917				3.31×10 ⁻⁹	1.63×10 ⁻⁶	0.000168	0.00604	0.105	1.06	7.28			
Nickel	1728				2.19×10 ⁻¹⁰	1.09×10 ⁻⁶	0.000471	0.0438	1.37	19.5				
Niobium	2750							2.32×10 ⁻¹¹	9.54×10 ⁻⁹	1.17×10 ⁻⁶	5.98×10 ⁻⁵	0.00158		
Osmium	3306								1.85×10 ⁻¹⁰	3.46×10 ⁻⁸	2.49×10 ⁻⁶	8.75×10 ⁻⁵		
Palladium	1828				8.27×10 ⁻⁹	1.40×10 ⁻⁵	0.00277	0.144	3.07					
Platinum	2041						2.34×10 ⁻⁹	1.14×10 ⁻⁵	0.00143	0.0689	0.153	1.59		
Plutonium	913				1.03×10 ⁻⁸	6.17×10 ⁻⁶	0.000594	0.0182	0.262	2.20	12.6	53.8		
Potassium	337	0.0188	96.9											
Praseodymium	1204				1.95×10 ⁻⁸	2.16×10 ⁻⁵	0.00257	0.0904	1.44	13.2	80.8			
Protactinium	1845							3.44×10 ⁻¹⁰	8.06×10 ⁻⁸	5.57×10 ⁻⁶	0.000174	0.00306		
Rhenium	3459								1.37×10 ⁻¹⁰	2.22×10 ⁻⁸	1.41×10 ⁻⁶	4.45×10 ⁻⁵		
Rhodium	2236							1.69×10 ⁻⁸	5.99×10 ⁻⁶	0.000571	0.0217	0.422	4.41	
Rubidium	312	0.165												
Ruthenium	2606							7.96×10 ⁻⁹	1.77×10 ⁻⁶	0.000133	0.00455	0.0858		
Samarium	1347		8.17×10 ⁻⁸	0.00221	0.942	51.0								
Scandium	1814				6.31×10 ⁻⁸	0.000129	0.0300	1.80	43.6	91.3				
Silver	1235			1.27×10 ⁻⁷	0.000603	0.165	7.61	131						
Sodium	371	0.000185	5.60											
Strontium	1050	4.99×10 ⁻¹¹	0.000429	1.134	121									
Tantalum	3280									3.36×10 ⁻¹⁰	1.87×10 ⁻⁸	5.21×10 ⁻⁷		
Terbium	1629				1.92×10 ⁻⁹	4.18×10 ⁻⁶	0.000988	0.0585	1.15	12.5	88.0			
Thallium	577		1.59×10 ⁻⁵	0.0931	16.9									
Thorium	2023						3.33×10 ⁻¹¹	2.00×10 ⁻⁸	2.89×10 ⁻⁶	0.000154	0.00401	0.0610		
Thulium	1818		6.03×10 ⁻¹⁰	5.94×10 ⁻⁵	0.0561	5.22	130							
Tin	505			1.26×10 ⁻⁹	8.62×10 ⁻⁶	0.00310	0.207	4.85	56.3					
Titanium	1943					9.69×10 ⁻⁹	7.44×10 ⁻⁶	0.00106	0.0493	0.978	10.6	76.9		
Tungsten	3687									2.62×10 ⁻¹⁰	3.01×10 ⁻⁸	1.59×10 ⁻⁶		
Uranium	1408					9.47×10 ⁻¹⁰	2.87×10 ⁻⁶	4.27×10 ⁻⁶	0.000263	0.00678	0.0933	0.803		
Vanadium	2183					2.79×10 ⁻¹⁰	4.35×10 ⁻⁷	0.000107	0.00769	0.233	3.68	32.6		
Ytterbium	1092	1.03×10 ⁻⁹	0.00384	6.74										
Yttrium	1795				6.66×10 ⁻¹¹	2.96×10 ⁻⁷	0.000117	0.0102	0.316	4.27	35.9			
Zinc	693	1.47×10 ⁻⁶	0.653											
Zirconium	2127						1.05×10 ⁻¹⁰	6.17×10 ⁻⁸	8.68×10 ⁻⁶	0.000450	0.0110	0.155		