

Periodic Table — Atomic Properties & Thermal Data

REQUESTED reference | Z = atomic number | A = representative mass number | AW = atomic weight (u) | IE = first ionization energy (eV) | MP = melting point (°C)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Z:1A:1 H AW 1.008 u IE 13.60 eV MP -259 °C																	Z:2A:4 He AW 4.003 u IE 24.59 eV MP -272 °C
2	Z:3A:7 Li AW 6.940 u IE 5.39 eV MP 181 °C	Z:4A:9 Be AW 9.012 u IE 9.32 eV MP 1287 °C										Z:5A:11 B AW 10.810 u IE 8.30 eV MP 2075 °C	Z:6A:12 C AW 12.011 u IE 11.26 eV MP 3550 °C	Z:7A:14 N AW 14.007 u IE 14.53 eV MP -210 °C	Z:8A:16 O AW 15.999 u IE 13.62 eV MP -218 °C	Z:9A:19 F AW 18.998 u IE 17.42 eV MP -220 °C	Z:10A:20 Ne AW 20.180 u IE 21.56 eV MP -249 °C	
3	Z:11A:23 Na AW 22.990 u IE 5.14 eV MP 98 °C	Z:12A:24 Mg AW 24.305 u IE 7.65 eV MP 650 °C									Z:13A:27 Al AW 26.982 u IE 5.99 eV MP 660 °C	Z:14A:28 Si AW 28.085 u IE 8.15 eV MP 1414 °C	Z:15A:31 P AW 30.974 u IE 10.49 eV MP 44 °C	Z:16A:32 S AW 32.060 u IE 10.36 eV MP 113 °C	Z:17A:35 Cl AW 35.450 u IE 12.97 eV MP -101 °C	Z:18A:40 Ar AW 39.948 u IE 15.76 eV MP -189 °C		
4	Z:19A:39 K AW 39.098 u IE 4.34 eV MP 64 °C	Z:20A:40 Ca AW 40.078 u IE 6.11 eV MP 842 °C	Z:21A:45 Sc AW 44.956 u IE 6.56 eV MP 1541 °C	Z:22A:48 Ti AW 47.867 u IE 6.83 eV MP 1668 °C	Z:23A:51 V AW 50.942 u IE 6.75 eV MP 1910 °C	Z:24A:52 Cr AW 51.996 u IE 6.77 eV MP 1907 °C	Z:25A:55 Mn AW 54.938 u IE 7.43 eV MP 1246 °C	Z:26A:56 Fe AW 55.845 u IE 7.90 eV MP 1538 °C	Z:27A:59 Co AW 58.933 u IE 7.88 eV MP 1495 °C	Z:28A:58 Ni AW 58.693 u IE 7.64 eV MP 1455 °C	Z:29A:63 Cu AW 63.546 u IE 7.73 eV MP 1085 °C	Z:30A:64 Zn AW 65.380 u IE 9.39 eV MP 420 °C	Z:31A:69 Ga AW 69.723 u IE 5.99 eV MP 30 °C	Z:32A:74 Ge AW 72.630 u IE 7.90 eV MP 938 °C	Z:33A:75 As AW 74.922 u IE 9.81 eV MP 817* °C	Z:34A:80 Se AW 78.971 u IE 9.75 eV MP 221 °C	Z:35A:79 Br AW 79.904 u IE 11.81 eV MP -7 °C	Z:36A:84 Kr AW 83.798 u IE 14.00 eV MP -157 °C
5	Z:37A:85 Rb AW 85.468 u IE 4.18 eV MP 39 °C	Z:38A:88 Sr AW 87.620 u IE 5.69 eV MP 777 °C	Z:39A:89 Y AW 88.906 u IE 6.22 eV MP 1526 °C	Z:40A:90 Zr AW 91.224 u IE 6.63 eV MP 1855 °C	Z:41A:93 Nb AW 92.906 u IE 6.76 eV MP 2477 °C	Z:42A:98 Mo AW 95.950 u IE 7.09 eV MP 2623 °C	Z:43A:98 Tc AW 98 u IE 7.28 eV MP 2157 °C	Z:44A:102 Ru AW 101.07 u IE 7.36 eV MP 2334 °C	Z:45A:103 Rh AW 102.91 u IE 7.46 eV MP 1964 °C	Z:46A:106 Pd AW 106.42 u IE 8.34 eV MP 1555 °C	Z:47A:107 Ag AW 107.87 u IE 7.58 eV MP 962 °C	Z:48A:114 Cd AW 112.41 u IE 8.99 eV MP 321 °C	Z:49A:115 In AW 114.82 u IE 5.79 eV MP 157 °C	Z:50A:120 Sn AW 118.71 u IE 7.34 eV MP 232 °C	Z:51A:121 Sb AW 121.76 u IE 8.64 eV MP 631 °C	Z:52A:130 Te AW 127.60 u IE 9.01 eV MP 450 °C	Z:53A:127 I AW 126.90 u IE 10.45 eV MP 114 °C	Z:54A:132 Xe AW 131.29 u IE 12.13 eV MP -112 °C
6	Z:55A:133 Cs AW 132.91 u IE 3.89 eV MP 28 °C	Z:56A:138 Ba AW 137.33 u IE 5.21 eV MP 727 °C	Z:57A:139 La AW 138.91 u IE 5.58 eV MP 920 °C	Z:72A:180 Hf AW 178.49 u IE 6.83 eV MP 2233 °C	Z:73A:181 Ta AW 180.95 u IE 7.55 eV MP 3017 °C	Z:74A:184 W AW 183.84 u IE 7.86 eV MP 3422 °C	Z:75A:187 Re AW 186.21 u IE 7.83 eV MP 3186 °C	Z:76A:192 Os AW 190.23 u IE 8.44 eV MP 3033 °C	Z:77A:193 Ir AW 192.22 u IE 8.97 eV MP 2446 °C	Z:78A:195 Pt AW 195.08 u IE 8.96 eV MP 1768 °C	Z:79A:197 Au AW 196.97 u IE 9.23 eV MP 1064 °C	Z:80A:202 Hg AW 200.59 u IE 10.44 eV MP -39 °C	Z:81A:205 Tl AW 204.38 u IE 6.11 eV MP 304 °C	Z:82A:208 Pb AW 207.20 u IE 7.42 eV MP 327 °C	Z:83A:209 Bi AW 208.98 u IE 7.29 eV MP 271 °C	Z:84A:209 Po AW 209 u IE 8.42 eV MP 254 °C	Z:85A:210 At AW 210 u IE 9.30 eV MP 302 °C	Z:86A:211 Rn AW 222 u IE 10.75 eV MP -71 °C
7	Z:87A:223 Fr AW 223 u IE 4.07 eV MP 27 °C	Z:88A:226 Ra AW 226 u IE 5.28 eV MP 700 °C	Z:89A:227 Ac AW 227 u IE 5.17 eV MP 1051 °C	Z:104A:267 Rf AW 267 u IE 6.00 eV MP — °C	Z:105A:268 Db AW 268 u IE 6.90 eV MP — °C	Z:106A:269 Sg AW 271 u IE 7.90 eV MP — °C	Z:107A:270 Bh AW 270 u IE 7.70 eV MP — °C	Z:108A:277 Hs AW 277 u IE 7.60 eV MP — °C	Z:109A:278 Mt AW 278 u IE — eV MP — °C	Z:110A:281 Ds AW 281 u IE — eV MP — °C	Z:111A:282 Rg AW 282 u IE — eV MP — °C	Z:112A:285 Cn AW 285 u IE — eV MP — °C	Z:113A:286 Nh AW 286 u IE — eV MP — °C	Z:114A:289 Fl AW 289 u IE — eV MP — °C	Z:115A:290 Mc AW 290 u IE — eV MP — °C	Z:116A:293 Lv AW 293 u IE — eV MP — °C	Z:117A:294 Ts AW 294 u IE — eV MP — °C	Z:118A:294 Og AW 294 u IE — eV MP — °C
			Z:57A:139 La AW 138.91 u IE 5.58 eV MP 920 °C	Z:58A:140 Ce AW 140.12 u IE 5.54 eV MP 799 °C	Z:59A:141 Pr AW 140.91 u IE 5.47 eV MP 931 °C	Z:60A:142 Nd AW 144.24 u IE 5.53 eV MP 1021 °C	Z:61A:145 Pm AW 145 u IE 5.58 eV MP 1042 °C	Z:62A:152 Sm AW 150.36 u IE 5.64 eV MP 1072 °C	Z:63A:153 Eu AW 151.96 u IE 5.67 eV MP 822 °C	Z:64A:158 Gd AW 157.25 u IE 6.15 eV MP 1313 °C	Z:65A:159 Tb AW 158.93 u IE 5.86 eV MP 1356 °C	Z:66A:164 Dy AW 162.50 u IE 5.94 eV MP 1412 °C	Z:67A:165 Ho AW 164.93 u IE 6.02 eV MP 1474 °C	Z:68A:166 Er AW 167.26 u IE 6.11 eV MP 1529 °C	Z:69A:169 Tm AW 168.93 u IE 6.18 eV MP 1545 °C	Z:70A:174 Yb AW 173.04 u IE 6.25 eV MP 819 °C	Z:71A:175 Lu AW 174.97 u IE 5.43 eV MP 1663 °C	
		Z:89A:227 Ac AW 227 u IE 5.17 eV MP 1051 °C	Z:90A:232 Th AW 232.04 u IE 6.31 eV MP 1750 °C	Z:91A:231 Pa AW 231.04 u IE 5.89 eV MP 1568 °C	Z:92A:238 U AW 238.03 u IE 6.19 eV MP 1135 °C	Z:93A:237 Np AW 237 u IE 6.27 eV MP 639 °C	Z:94A:244 Pu AW 244 u IE 6.03 eV MP 640 °C	Z:95A:243 Am AW 243 u IE 5.97 eV MP 1176 °C	Z:96A:247 Cm AW 247 u IE 5.99 eV MP 1340 °C	Z:97A:247 Bk AW 247 u IE 6.20 eV MP 1050 °C	Z:98A:251 Cf AW 251 u IE 6.28 eV MP 900 °C	Z:99A:254 Es AW 252 u IE 6.42 eV MP 860 °C	Z:100A:257 Fm AW 257 u IE 6.50 eV MP 1527 °C	Z:101A:258 Md AW 258 u IE 6.58 eV MP 827 °C	Z:102A:259 No AW 259 u IE 6.65 eV MP 827 °C	Z:103A:266 Lr AW 266 u IE 4.87 eV MP 1627 °C		

* Lanthanides (Z = 57–71) ** Actinides (Z = 89–103) A uses the most abundant isotope where available; otherwise the representative isotope in the isotope reference.