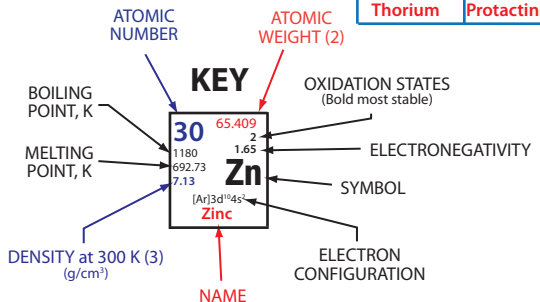


# Periodic Table of Elements

Group 1/IA										18/VIIIA																																											
1 1.00794 20.28 2.20 13.81 0.0899 † <sup>1</sup> s <b>H</b> Hydrogen										2 4.00260 4.216 0.95 at 26 atm 0.1785 † <sup>1</sup> s <b>He</b> Helium																																											
3 (6.941) 1615 0.98 453.7 0.534 [He]2s <b>Li</b> Lithium		4 9.012182 2744 1.57 1560 1.85 [He]2s <b>Be</b> Beryllium		5 44.95591 3109 1.36 1814 1.85 2.99 [Ar]3d <b>Sc</b> Scandium		6 47.867 3560 4.32 1941 1.54 4.54 [Ar]3d4s <b>Ti</b> Titanium		7 50.9415 3680 5.4,3,2 2183 1.63 6.11 [Ar]3d4s <b>V</b> Vanadium		8 51.996 4295 3.6,2 2180 1.55 7.19 [Ar]3d4s <b>Cr</b> Chromium		9 54.9380 2234 2.3,4,6,7 1519 1.66 7.44 [Ar]3d4s <b>Mn</b> Manganese		10 55.845 3134 3.2,6 1811 1.83 7.874 [Ar]3d4s <b>Fe</b> Iron		11 58.9332 3200 1.88 1728 1.728 8.90 [Ar]3d4s <b>Co</b> Cobalt		12 58.6934 3186 1.91 1357.8 8.90 [Ar]3d4s <b>Ni</b> Nickel		13 63.546 2835 2.1 190 7.13 1357.8 8.96 [Ar]3d4s <b>Cu</b> Copper		14 65.409 2477 1.81 302.91 5.32 [Ar]3d4s <b>Zn</b> Zinc		15 69.723 2477 1.81 302.91 5.32 [Ar]3d4s <b>Ga</b> Gallium		16 72.64 3106 2.01 1211.4 5.32 [Ar]3d4s <b>Ge</b> Germanium		17 74.9216 876 (subl.) 2.18 1090 (28 atm) 5.73 [Ar]3d4s <b>As</b> Arsenic		18 78.96 958 2.55 494 4.79 3.12 [Ar]3d4s <b>Se</b> Selenium		19 79.904 331.95 2.96 265.95 3.12 [Ar]3d4s <b>Br</b> Bromine		20 83.80 119.93 0.2 115.8 3.73 † [Ar]3d4s <b>Kr</b> Krypton																			
37 85.4678 961 0.82 312.46 1.532 [Kr]5s <b>Rb</b> Rubidium			38 87.62 1655 0.95 1050 1.22 4.47 [Kr]5s <b>Sr</b> Strontium			39 88.9059 3618 1.32 1810 1.85 4.47 [Kr]4d5s <b>Y</b> Yttrium			40 91.224 4682 1.33 2730 1.6 6.51 [Kr]4d5s <b>Zr</b> Zirconium			41 92.90638 5017 1.6 2896 1.6 8.57 [Kr]4d5s <b>Nb</b> Niobium			42 95.94 4538 6.5,4,3,2 2430 1.9 12.37 8.57 [Kr]4d5s <b>Mo</b> Molybdenum			43 (98) 4423 7.5,4 2267 1.9 12.37 8.57 [Kr]4d5s <b>Tc</b> Technetium			44 101.07 2345 2.2 2237 1.24 12.01 [Kr]4d5s <b>Ru</b> Ruthenium			45 102.90550 3968 2.28 2237 1.24 12.01 [Kr]4d5s <b>Rh</b> Rhodium			46 106.42 3236 2.4 1828 1.2 12.01 [Kr]4d5s <b>Pd</b> Palladium			47 107.8682 2435 1.93 1040 1.69 10.5 [Kr]4d5s <b>Ag</b> Silver			48 112.41 2472 2.1 1063 1.78 7.31 [Kr]4d5s <b>Cd</b> Cadmium			49 114.82 2345 1.78 429.75 7.31 [Kr]4d5s <b>In</b> Indium			50 118.710 2875 1.96 903.78 6.69 [Kr]4d5s <b>Sn</b> Tin			51 121.760 1860 2.05 903.78 6.69 [Kr]4d5s <b>Sb</b> Antimony			52 127.60 46.2 2161 2.1 722.66 6.24 [Kr]4d5s <b>Te</b> Tellurium			53 126.90447 238.02 1.57 386.85 4.93 [Kr]4d5s <b>I</b> Iodine			54 131.29 0.2,4,6,8 165.11 2.6 161.4 5.90 † [Kr]4d5s <b>Xe</b> Xenon		
55 132.90545 944 0.79 301.54 1.87 [Xe]6s <b>Cs</b> Cesium			56 137.327 2170 0.89 1000 3.5 6.15 [Xe]6s <b>Ba</b> Barium			57 138.9053 3737 1.10 1191 1.85 6.15 [Xe]5d6s <b>La</b> Lanthanum			72 178.49 4876 1.3 2506 1.33 13.31 [Xe]4f5d6s <b>Hf</b> Hafnium			73 180.9479 5730 1.5 3290 1.65 16.65 [Xe]4f5d6s <b>Ta</b> Tantalum			74 183.84 5828 6.5,4,3,2 3695 2.36 19.3 [Xe]4f5d6s <b>W</b> Tungsten			75 186.207 5870 7.5,4 3459 1.9 22.57 [Xe]4f5d6s <b>Re</b> Rhenium			76 190.23 486.3,2 3306 2.2 22.57 [Xe]4f5d6s <b>Os</b> Osmium			77 192.227 426.3 2720 2.28 22.42 [Xe]4f5d6s <b>Ir</b> Iridium			78 195.08 4098 4.2 2041.55 21.45 [Xe]4f5d6s <b>Pt</b> Platinum			79 196.96655 3130 2.54 1337.33 19.3 [Xe]4f5d6s <b>Au</b> Gold			80 200.59 200.59 2.1 2629.88 13.55 [Xe]4f5d6s <b>Hg</b> Mercury			81 204.3833 1746 3.1 600.61 11.35 [Xe]4f5d6s <b>Tl</b> Thallium			82 207.2 207.2 2.4 544.55 9.75 [Xe]4f5d6s <b>Pb</b> Lead			83 208.9804 1837 3.5 544.55 9.75 [Xe]4f5d6s <b>Bi</b> Bismuth			84 (209) 209 4.2 527 2.0 9.3 [Xe]4f5d6s <b>Po</b> Polonium			85 (210) 210 1.7,5,3 610* 2.1 575 9.73 † [Xe]4f5d6s <b>At</b> Astatine			86 (222) 222 0.2 211.4 202 9.73 † [Xe]4f5d6s <b>Rn</b> Radon		
87 (223) 950* 0.7 300 [Rn]7s <b>Fr</b> Francium			88 (226) 1413 0.9 973 5.0 10.07 [Rn]7s <b>Ra</b> Radium			89 (227) 3470* 1.1 1007 10.07 [Rn]6d7s <b>Ac</b> Actinium			104 (261) [Rn]5f6d7s <b>Rf</b> Rutherfordium			105 (262) [Rn]5f6d7s <b>Db</b> Dubnium			106 (266) [Rn]5f6d7s <b>Sg</b> Seaborgium			107 (264) [Rn]5f6d7s <b>Bh</b> Bohrium			108 (277) [Rn]5f6d7s <b>Hs</b> Hassium			109 (268) [Rn]5f6d7s <b>Mt</b> Meitnerium			110 (269) [Rn]5f6d7s <b>Ds</b> Darmstadtium			111 (272) [Rn]5f6d7s <b>Rg</b> Roentgenium			112 (285) [Rn]5f6d7s <b>Uub</b> (Ununbium)			113 (284) [Rn]5f6d7s <b>Uut</b> (Ununtrium)			114 (289) [Rn]5f6d7s <b>Uuq</b> (Ununquadium)			115 (288) [Rn]5f6d7s <b>Uup</b> (Ununpentium)			116 [Rn]5f6d7s <b>Uuh</b> (Ununhexium)			117 [Rn]5f6d7s <b>Uus</b> (Ununseptium)			118 [Rn]5f6d7s <b>Uuo</b> (Ununoctium)		

* 58 140.116 3716 1.12 1071 6.77 [Xe]4f5d6s <b>Ce</b> Cerium	* 59 140.90765 3785 1.13 1204 6.77 [Xe]4f6s <b>Pr</b> Praseodymium	* 60 144.24 3347 1.14 1294 7.01 [Xe]4f6s <b>Nd</b> Neodymium	* 61 (145) 3273 1.13 1315 7.26 [Xe]4f6s <b>Pm</b> Promethium	* 62 150.36 2067 1.17 1347 7.52 [Xe]4f6s <b>Sm</b> Samarium	* 63 151.964 1869 1.2 1095 5.24 [Xe]4f6s <b>Eu</b> Europium	* 64 157.25 3546 1.20 1586 7.90 [Xe]4f5d6s <b>Gd</b> Gadolinium	* 65 158.92534 3503 1.1 1629 8.23 [Xe]4f6s <b>Tb</b> Terbium	* 66 162.50 2973 1.23 1747 8.795 [Xe]4f6s <b>Dy</b> Dysprosium	* 67 164.9303 3140 1.24 1802 9.07 [Xe]4f6s <b>Ho</b> Holmium	* 68 167.26 2223 1.25 1818 9.32 [Xe]4f6s <b>Er</b> Erbium	* 69 168.9342 2223 1.25 1992 6.903 [Xe]4f6s <b>Tm</b> Thulium	* 70 173.04 1469 1.1 1092 9.841 [Xe]4f6s <b>Yb</b> Ytterbium	* 71 174.967 3675 1.27 1936 9.841 [Xe]4f5d6s <b>Lu</b> Lutetium
** 90 232.0381 5061 1.3 2023 11.72 [Rn]6d7s <b>Th</b> Thorium	** 91 231.0359 4300* 1.5 1845 15.4* [Rn]5f6d7s <b>Pa</b> Protactinium	** 92 238.0289 4404 1.38 1408 18.95 [Rn]5f6d7s <b>U</b> Uranium	** 93 (237) 4175* 1.36 917 20.2 [Rn]5f6d7s <b>Np</b> Neptunium	** 94 (244) 465.3 3505 1.28 913 19.84 [Rn]5f7s <b>Pu</b> Plutonium	** 95 (243) 2284 1.3* 1449 13.7 [Rn]5f7s <b>Am</b> Americium	** 96 (247) 1620 1.3* 13.5* [Rn]5f6d7s <b>Cm</b> Curium	** 97 (247) 2840 1.3* 14* [Rn]5f7s <b>Bk</b> Berkelium	** 98 (251) 234 1.3* 1170* [Rn]5f7s <b>Cf</b> Californium	** 99 (252) 1130* 1.3* 1800* [Rn]5f7s <b>Es</b> Einsteinium	** 100 (257) 3 1.3* [Rn]5f7s <b>Fm</b> Fermium	** 101 (258) 3 1.3* 1100* [Rn]5f7s <b>Md</b> Mendelevium	** 102 (259) 2.3 1.3* 1100* [Rn]5f7s <b>No</b> Nobelium	** 103 (262) 3 1.3* 1900* [Rn]5f6d7s <b>Lr</b> Lawrencium



Notes:

- (1) Black - solid  
Red - gas  
Blue - liquid  
Outline - synthetically prepared

- (2) Based upon carbon-12. () indicates most stable or best known isotope.
- (3) Entries marked with daggers refer to the gaseous state at 273 K and 1 atm and are given in units of g/l.

The A & B subgroup designations are those recommended by the international Union of Pure and Applied Chemistry.