

The Periodic Table of Elements

1											18							
1	1 H Hydrogen 1.008 -1,+1											2 He Helium 4.003 0						
2	3 Li Lithium 6.941 +1	4 Be Beryllium 9.012 +2											13 B Boron 10.811 +3	14 C Carbon 12.011 +4,+3,+2,+1 -4,-3 -2,-1	15 N Nitrogen 14.007 +5,+3,-3	16 O Oxygen 15.999 -2	17 F Fluorine 18.998 -1	18 Ne Neon 20.180 0
3	11 Na Sodium 22.990 +1	12 Mg Magnesium 24.305 +2											13 Al Aluminium 26.982 +3	14 Si Silicon 28.086 +4,-4	15 P Phosphorus 30.974 +5,+3,-3	16 S Sulfur 32.066 +6,+4,+2,-2	17 Cl Chlorine 35.453 +7,+5,+3,+1 -1	18 Ar Argon 39.948 0
4	19 K Potassium 39.098 +1	20 Ca Calcium 40.078 +2	21 Sc Scandium 44.956 +3	22 Ti Titanium 47.88 +4	23 V Vanadium 50.942 +5	24 Cr Chromium 51.996 +6,+3	25 Mn Manganese 54.938 +7,+4,+2	26 Fe Iron 55.845 +6,+3,+2	27 Co Cobalt 58.933 +3,+2	28 Ni Nickel 58.693 +2	29 Cu Copper 63.546 +2	30 Zn Zinc 65.38 +2	31 Ga Gallium 69.723 +3	32 Ge Germanium 72.631 +4,+2,-4	33 As Arsenic 74.922 +5,+3,-3	34 Se Selenium 78.971 +6,+4,+2,-2	35 Br Bromine 79.904 +5,+3,+1,-1	36 Kr Krypton 84.798 +2,0
5	37 Rb Rubidium 85.468 +1	38 Sr Strontium 87.62 +2	39 Y Yttrium 88.906 +3	40 Zr Zirconium 91.224 +4	41 Nb Niobium 92.906 +5	42 Mo Molybdenum 95.95 +6,+4	43 Tc Technetium 98.907 +7,+4	44 Ru Ruthenium 101.07 +4,+3	45 Rh Rhodium 102.906 +3	46 Pd Palladium 106.42 +4,+2	47 Ag Silver 107.868 +1	48 Cd Cadmium 112.414 +2	49 In Indium 114.818 +3	50 Sn Tin 118.711 +4,+2,-4	51 Sb Antimony 121.760 +5,+3,-3	52 Te Tellurium 127.6 +6,+4,+2,-2	53 I Iodine 126.904 +6,+4,+2,-2	54 Xe Xenon 131.294 +6,+4,+2,0
6	55 Cs Cesium 132.905 +1	56 Ba Barium 137.328 +2	57-71 *	72 Hf Hafnium 178.49 +4	73 Ta Tantalum 180.948 +5	74 W Tungsten 183.85 +6,+4	75 Re Rhenium 186.207 +4	76 Os Osmium 190.23 +4	77 Ir Iridium 192.22 +4,+3	78 Pt Platinum 195.08 +4,+2	79 Au Gold 196.967 +3	80 Hg Mercury 200.59 +2,+1	81 Tl Thallium 204.383 +3,+1	82 Pb Lead 207.2 +4,+2	83 Bi Bismuth 208.980 +3	84 Po Polonium [208.982] +4,+2,-2	85 At Astatine 209.987 +1,-1	86 Rn Radon 222.018 +2,0
7	87 Fr Francium 223.020 +1	88 Ra Radium 226.025 +2	89-103 **	104 Rf Rutherfordium [261] +4	105 Db Dubnium [262] +5	106 Sg Seaborgium [266] +6	107 Bh Bohrium [264] +7	108 Hs Hassium [269] +8	109 Mt Meitnerium [278] Unknown	110 Ds Darmstadtium [281] Unknown	111 Rg Roentgenium [280] Unknown	112 Cn Copernicium [285] +2	113 Nh Nihonium [286] Unknown	114 Fl Flerovium [289] Unknown	115 Mc Moscovium [289] Unknown	116 Lv Livermorium [293] Unknown	117 Ts Tennessine [294] Unknown	118 Og Oganesson [294] Unknown

Atomic Number	Valence
Symbol	
Element Name	
Atomic Mass (u)	

Alkali metals	Lanthanides
Alkaline earth metals	Actinides
Transition metals	Nonmetals
Post-transition metals	Halogens
Metalloid	Noble gases

Lanthanide Series*

57 La Lanthanum 138.905 +3	58 Ce Cerium 140.116 +4,+3	59 Pr Praseodymium 140.908 +3	60 Nd Neodymium 144.243 +3	61 Pm Promethium 144.913 +3	62 Sm Samarium 150.36 +3	63 Eu Europium 151.964 +3,+2	64 Gd Gadolinium 157.25 +3	65 Tb Terbium 158.925 +3	66 Dy Dysprosium 162.500 +3	67 Ho Holmium 164.930 +3	68 Er Erbium 167.259 +3	69 Tm Thulium 168.934 +3	70 Yb Ytterbium 173.055 +3	71 Lu Lutetium 174.967 +3
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Actinide Series**

89 Ac Actinium 227.028 +3	90 Th Thorium 232.038 +4	91 Pa Protactinium 231.036 +5	92 U Uranium 238.029 +6	93 Np Neptunium 237.048 +5	94 Pu Plutonium 244.064 +4	95 Am Americium 243.061 +3	96 Cm Curium 247.070 +3	97 Bk Berkelium 247.070 +3	98 Cf Californium 251.080 +3	99 Es Einsteinium [254] +3	100 Fm Fermium 257.095 +3	101 Md Mendelevium 258.1 +3	102 No Nobelium 259.101 +2	103 Lr Lawrencium [262] +3
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