

# Periodic Table of the Elements

1																	18		
1												13	14	15	16	17	18		
1	1 1+ <b>H</b> Hydrogen 1.0																	2 0 <b>He</b> Helium 4.0	
2	3 1+ <b>Li</b> Lithium 6.9	4 2+ <b>Be</b> Beryllium 9.0												5 3+ <b>B</b> Boron 10.8	6 4+ <b>C</b> Carbon 12.0	7 3- <b>N</b> Nitrogen 14.0	8 2- <b>O</b> Oxygen 16.0	9 1- <b>F</b> Fluorine 19.0	10 0 <b>Ne</b> Neon 20.2
3	11 1+ <b>Na</b> Sodium 23.0	12 2+ <b>Mg</b> Magnesium 24.3												13 3+ <b>Al</b> Aluminum 27.0	14 4+ <b>Si</b> Silicon 28.1	15 3- <b>P</b> Phosphorus 31.0	16 2- <b>S</b> Sulfur 32.1	17 1- <b>Cl</b> Chlorine 35.5	18 0 <b>Ar</b> Argon 39.9
4	19 1+ <b>K</b> Potassium 39.1	20 2+ <b>Ca</b> Calcium 40.1	21 3+ <b>Sc</b> Scandium 45.0	22 4+ <b>Ti</b> Titanium 47.9	23 5+ <b>V</b> Vanadium 50.9	24 3+ <b>Cr</b> Chromium 52.0	25 2+ <b>Mn</b> Manganese 54.9	26 3+ <b>Fe</b> Iron 55.8	27 2+ <b>Co</b> Cobalt 58.9	28 2+ <b>Ni</b> Nickel 58.7	29 2+ <b>Cu</b> Copper 63.5	30 2+ <b>Zn</b> Zinc 65.4	31 3+ <b>Ga</b> Gallium 69.7	32 4+ <b>Ge</b> Germanium 72.6	33 3- <b>As</b> Arsenic 74.9	34 2- <b>Se</b> Selenium 79.0	35 1- <b>Br</b> Bromine 79.9	36 0 <b>Kr</b> Krypton 83.8	
5	37 1+ <b>Rb</b> Rubidium 85.5	38 2+ <b>Sr</b> Strontium 87.6	39 3+ <b>Y</b> Yttrium 88.9	40 4+ <b>Zr</b> Zirconium 91.2	41 3+ <b>Nb</b> Niobium 92.9	42 2+ <b>Mo</b> Molybdenum 95.9	43 7+ <b>Tc</b> Technetium (98)	44 3+ <b>Ru</b> Ruthenium 101.1	45 3+ <b>Rh</b> Rhodium 102.9	46 2+ <b>Pd</b> Palladium 106.4	47 1+ <b>Ag</b> Silver 107.9	48 2+ <b>Cd</b> Cadmium 112.4	49 3+ <b>In</b> Indium 114.8	50 4+ <b>Sn</b> Tin 118.7	51 3+ <b>Sb</b> Antimony 121.8	52 2- <b>Te</b> Tellurium 127.6	53 1- <b>I</b> Iodine 126.9	54 0 <b>Xe</b> Xenon 131.3	
6	55 1+ <b>Cs</b> Cesium 132.9	56 2+ <b>Ba</b> Barium 137.3	57 3+ <b>La</b> Lanthanum 138.9	72 4+ <b>Hf</b> Hafnium 178.5	73 5+ <b>Ta</b> Tantalum 180.9	74 6+ <b>W</b> Tungsten 183.8	75 4+ <b>Re</b> Rhenium 186.2	76 3+ <b>Os</b> Osmium 190.2	77 3+ <b>Ir</b> Iridium 192.2	78 4+ <b>Pt</b> Platinum 195.1	79 3+ <b>Au</b> Gold 197.0	80 2+ <b>Hg</b> Mercury 200.6	81 1+ <b>Tl</b> Thallium 204.4	82 2+ <b>Pb</b> Lead 207.2	83 3+ <b>Bi</b> Bismuth 209.0	84 2+ <b>Po</b> Polonium (209)	85 1- <b>At</b> Astatine (210)	86 0 <b>Rn</b> Radon (222)	
7	87 1+ <b>Fr</b> Francium (223)	88 2+ <b>Ra</b> Radium (226)	89 3+ <b>Ac</b> Actinium (227)	104 <b>Rf</b> Rutherfordium (261)	105 <b>Db</b> Dubnium (262)	106 <b>Sg</b> Seaborgium (263)	107 <b>Bh</b> Bohrium (262)	108 <b>Hs</b> Hassium (265)	109 <b>Mt</b> Meitnerium (266)	110 <b>Ds</b> Darmstadtium (281)	111 <b>Rg</b> Roentgenium (272)	112 <b>Uub*</b> Ununbium (285)	113 <b>Uut*</b> Ununtrium (284)	114 <b>Uuq*</b> Ununquadium (289)	115 <b>Uup*</b> Ununpentium (288)	116 <b>Uuh*</b> Ununhexium (292)			118 <b>Uuo*</b> Ununoctium (294)

metal  
 metalloid  
 non-metal  
 natural  
 Db synthetic

Atomic Number → 22 4+ ← Ion charge(s)  
 Symbol → **Ti** 3+  
 Name → Titanium  
 Atomic Mass → 47.9

\* Temporary names

Based on mass of C-12 at 12.00.

Any value in parentheses is the mass of the most stable or best known isotope for elements that do not occur naturally.

58 3+ <b>Ce</b> Cerium 140.1	59 3+ <b>Pr</b> Praseodymium 140.9	60 3+ <b>Nd</b> Neodymium 144.2	61 3+ <b>Pm</b> Promethium (145)	62 3+ <b>Sm</b> Samarium 150.4	63 3+ <b>Eu</b> Europium 152.0	64 3+ <b>Gd</b> Gadolinium 157.3	65 3+ <b>Tb</b> Terbium 158.9	66 3+ <b>Dy</b> Dysprosium 162.5	67 3+ <b>Ho</b> Holmium 164.9	68 3+ <b>Er</b> Erbium 167.3	69 3+ <b>Tm</b> Thulium 168.9	70 3+ <b>Yb</b> Ytterbium 173.0	71 3+ <b>Lu</b> Lutetium 175.0
90 4+ <b>Th</b> Thorium 232.0	91 5+ <b>Pa</b> Protactinium 231.0	92 6+ <b>U</b> Uranium 238.0	93 5+ <b>Np</b> Neptunium (237)	94 4+ <b>Pu</b> Plutonium (244)	95 3+ <b>Am</b> Americium (243)	96 3+ <b>Cm</b> Curium (247)	97 3+ <b>Bk</b> Berkelium (247)	98 3+ <b>Cf</b> Californium (251)	99 3+ <b>Es</b> Einsteinium (252)	100 3+ <b>Fm</b> Fermium (257)	101 2+ <b>Md</b> Mendelevium (258)	102 2+ <b>No</b> Nobelium (259)	103 3+ <b>Lr</b> Lawrencium (262)