

1 H 1.00794																	2 He 4.002602
3 Li 6.941	4 Be 9.012182											5 B 10.811	6 C 12.0107	7 N 14.00674	8 O 15.9994	9 F 18.9984032	10 Ne 20.1797
11 Na 22.989770	12 Mg 24.3050											13 Al 26.581538	14 Si 28.0855	15 P 30.973761	16 S 32.066	17 Cl 35.4527	18 Ar 39.948
19 K 39.0983	20 Ca 40.078	21 Sc 44.955910	22 Ti 47.867	23 V 50.9415	24 Cr 51.9961	25 Mn 54.938049	26 Fe 55.845	27 Co 58.933200	28 Ni 58.6534	29 Cu 63.545	30 Zn 65.39	31 Ga 69.723	32 Ge 72.61	33 As 74.92160	34 Se 78.96	35 Br 79.504	36 Kr 83.80
37 Rb 85.4678	38 Sr 87.62	39 Y 88.90585	40 Zr 91.224	41 Nb 92.90638	42 Mo 95.94	43 Tc (98)	44 Ru 101.07	45 Rh 102.90550	46 Pd 106.42	47 Ag 196.56655	48 Cd 112.411	49 In 114.818	50 Sn 118.710	51 Sb 121.760	52 Te 127.60	53 I 126.90447	54 Xe 131.29
55 Cs 132.90545	56 Ba 137.327	57 La 138.9055	72 Hf 178.49	73 Ta 180.94.79	74 W 183.84	75 Re 186.207	76 Os 190.23	77 Ir 192.217	78 Pt 195.078	79 Au 196.56655	80 Hg 200.59	81 Tl 204.3833	82 Pb 207.2	83 Bi 208.58038	84 Po (209)	85 At (210)	86 Rn (222)
87 Fr (223)	88 Ra (226)	89 Ac (227)	104 Rf (261)	105 Db (262)	106 Sg (263)	107 Bh (262)	108 Hs (265)	109 Mt (266)	110 (269)	111 (272)	112 (277)		114 (289) (287)		116 (289)		118 (293)

Charges	Element	Ionic Charges
1+ or 2+	copper	Cu <sup>+</sup>
		Cu <sup>2+</sup>
	mercury	Hg <sup>+</sup>
		Hg <sup>2+</sup>
1+ or 3+	gold	Au <sup>+</sup>
		Au <sup>3+</sup>
2+ or 3+	iron	Fe <sup>2+</sup>
		Fe <sup>3+</sup>
	nickel	Ni <sup>2+</sup>
		Ni <sup>3+</sup>
2+ or 4+	lead	Pb <sup>2+</sup>
		Pb <sup>4+</sup>
	manganese	Mn <sup>2+</sup>
		Mn <sup>4+</sup>
	tin	Sn <sup>2+</sup>
		Sn <sup>4+</sup>

Name of Polyatomic Ion	Ion Formula	Ionic Charge
nitrate	NO <sub>3</sub> <sup>-</sup>	-1
chlorate	ClO <sub>3</sub> <sup>-</sup>	
hydroxide	OH <sup>-</sup>	
hydrogen carbonate ion (aka bicarbonate ion)	HCO <sub>3</sub> <sup>-</sup>	
acetate	C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup> / CH <sub>3</sub> COO <sup>-</sup>	
permanganate	MnO <sub>4</sub> <sup>-</sup>	-2
cyanide	CN <sup>-</sup>	
carbonate	CO <sub>3</sub> <sup>2-</sup>	
sulfate	SO <sub>4</sub> <sup>2-</sup>	-3
phosphate	PO <sub>4</sub> <sup>3-</sup>	
ammonium	NH <sub>4</sub> <sup>+</sup>	+1

Most reactive	
↓	fluorine F
	chlorine Cl
	oxygen O
	bromine Br
	iodine I
	sulfur S
Least reactive	(red) phosphorus P

Most reactive	
↓	lithium Li
	rubidium Rb
	potassium K
	barium Ba
	strontium Sr
	calcium Ca
	sodium Na
	magnesium Mg
	beryllium Be
	aluminum Al
	manganese Mn
	zinc Zn
	cadmium Cd
	iron Fe
	cobalt Co
	nickel Ni
	tin Sn
	lead Pb
	(hydrogen) (H <sub>2</sub> )
	copper Cu
	mercury Hg
	silver Ag
	palladium Pd
	platinum Pt
Least reactive	gold Au