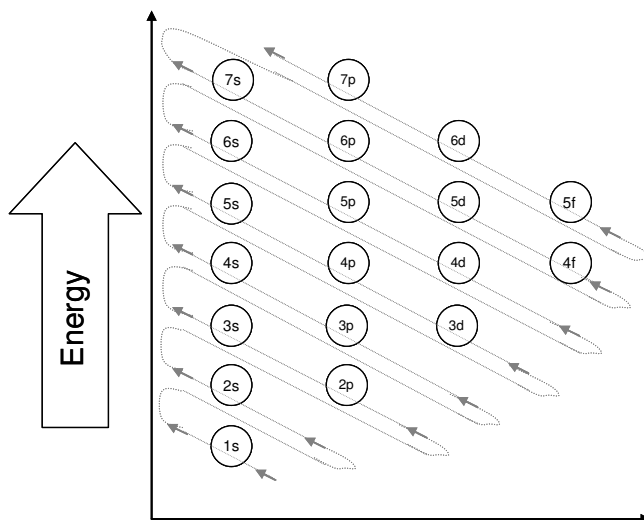


Conversion Factors and Constants

pico (p) = 1×10^{-12}
 nano (n) = 1×10^{-9}
 micro (μ) = 1×10^{-6}
 milli (m) = 1×10^{-3}
 centi (c) = 1×10^{-2}
 deci (d) = 1×10^{-1}
 kilo (k) = 1×10^3
 mega (M) = 1×10^6
 $N_0 = 6.02 \times 10^{23}$ particles/mol



Formulas

Density = mass / volume

$M_{\text{concentrated}} V_{\text{concentrated}} = M_{\text{dilute}} V_{\text{dilute}}$

$M = \text{moles solute} / \text{L solution}$

Mass Percent = $\frac{\text{mass solute}}{\text{mass solution}} * 100\% = \frac{\text{mass solute}}{\text{mass solvent} + \text{mass solute}} * 100\%$

$^{\circ}\text{C} = (^{\circ}\text{F} - 32^{\circ}\text{F}) / 1.8$

$^{\circ}\text{F} = 1.8 ^{\circ}\text{C} + 32^{\circ}\text{F}$

Polyatomic ions

Acetate	$\text{C}_2\text{H}_3\text{O}_2^-$	Hydroxide	OH^-
Ammonium	NH_4^+	Hypochlorite	ClO^-
Bicarbonate	HCO_3^-	Nitrate	NO_3^-
Bisulfate	HSO_4^-	Nitrite	NO_2^-
Carbonate	CO_3^{2-}	Perchlorate	ClO_4^-
Chlorate	ClO_3^-	Permanganate	MnO_4^-
Chlorite	ClO_2^-	Phosphate	PO_4^{3-}
Chromate	CrO_4^{2-}	Sulfate	SO_4^{2-}
Cyanide	CN^-	Sulfite	SO_3^{2-}
Dichromate	$\text{Cr}_2\text{O}_7^{2-}$		

Prefixes for naming binary molecular compounds

1	mono-	5	penta-	9	nona-
2	di-	6	hexa-	10	deca
3	tri-	7	hepta-		
4	tetra-	8	octa-		