Conversion Factors and Constants

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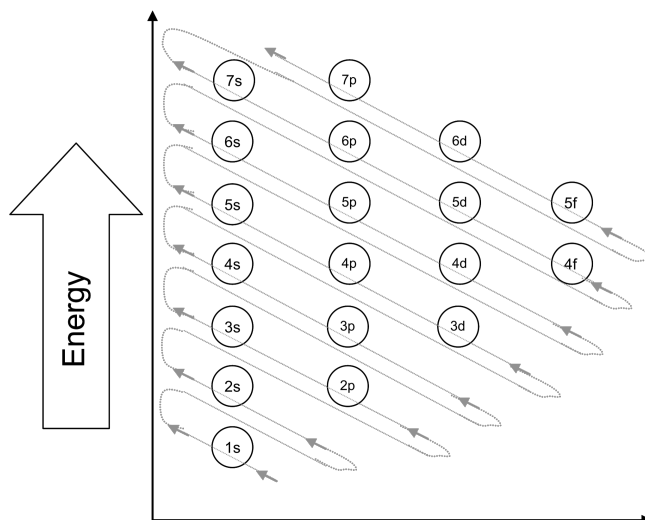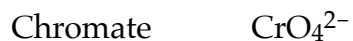

Formulas

Density = mass / volume

M = moles solute / L solution

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

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

$$°C = (°F - 32°F)/1.8 \qquad °F = 1.8\,°C + 32°F$$

Polyatomic ions

Acetate	$C_2H_3O_2^-$	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	$Cr_2O_7^{2-}$		

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-		