Introductory Chemistry formula sheet

Density: D = $\frac{g}{ml} = \frac{mass\ (g)}{volume\ (ml)}$ Protons + electrons = 0   Protons + neutrons = atomic mass

Atomic mass = $\Sigma[fraction\ isotopes * mass\ isotopes]$ $\nu = \frac{c}{\lambda}$

1)Aplha (α) radiation: particle = ^4_2He; Parent Nucleus = Daughter nucleus + α particle

2)Beta (β) radiation: β particle = $^0_{-1}e$; Parent nucleus = Daughter nucleus + β particle

3)Gamma (γ) radiation: Gamma radiation: particle = $^0_0\gamma$

Kelvin (K) = $^\circ$C + 273.15   Degree Celcius $^\circ$C = $\frac{5}{9}$ [$^\circ$F - 32]   Fahrenheit F = $\frac{9}{5}$[$^\circ$C] +32

Acid + Base→ salt + water   Arrhenius Acid – Substance that produces hydrogen [H$^+$] ion in solution.

Arrhenius Base – Substance that produces hydroxide [OH$^-$] ion in solution.

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Gases
$P_1V_1 = P_2V_2$
$\dfrac{V_1}{T_1} = \dfrac{V_2}{T_2}$
$\dfrac{P_1V_1}{T_1} = \dfrac{P_2V_2}{T_2}$

$c = 2.99 * 10^8 \dfrac{m}{s}$
$1\ Calorie\ (Cal) = 1000\ calories\ (cal) = 4184\ J$
$1\ kilowatt-hour\ (kWh) = 3.6 * 10^6\ J$
$1\ atm = 760\ mmHg = 760\ torr$

Oxidation is defined as:	Reduction is defined as:
-Gain of Oxygen	-loss of Oxygen
-loss of Hydrogen	-gain of Hydrogen
-loss of electrons	-gain of electrons

- Element/Compound oxidize is reducing agent

- Element/Compound reduce is oxidizing agent

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