FUNDAMENTAL CONSTANTS

Constants in mks units:

c	speed of light in vacuuo	2.99792458×10^8 m/sec
k	Boltzmann's constant	1.38066×10^{-23} J/$^\circ$K
e	proton charge	$1.6021773 \times 10^{-19}$ coulomb
h	Planck's constant	6.626076×10^{-34} J sec
m_e	electron mass	$9.1093897 \times 10^{-31}$ kg
m_p	proton mass	$1.6726231 \times 10^{-27}$ kg
m_n	neutron mass	$1.6749286 \times 10^{-27}$ kg

Conversion Factors:

$$1 \text{ coulomb} = 2.99792458 \times 10^9 \text{ esu}$$

$$1 \text{ joule} = 10^7 \text{ erg}$$

$$1 \text{ tesla} = 10^4 \text{ gauss}$$

Constants in cgs units:

c	speed of light in vacuuo	$2.99792458 \times 10^{10}$ cm/s
k	Boltzmann's constant	1.38066×10^{-16} erg/$^\circ$K
e	proton charge	$4.8032066 \times 10^{-10}$ esu
h	Planck's constant	6.626076×10^{-27} erg sec
m_e	electron mass	$9.1093897 \times 10^{-27}$ gm
m_p	proton mass	$1.6726231 \times 10^{-24}$ gm
m_n	neutron mass	$1.6749286 \times 10^{-24}$ gm
μ_e	Bohr magneton	9.274016×10^{-21} erg/gauss
μ_N	Nuclear magneton	5.050787×10^{-24} erg/gauss

Unit equivalents in cgs units:

$$1 \text{ gauss} = 1 \text{ erg}^{\frac{1}{2}} \text{ cm}^{-\frac{3}{2}}$$

$$1 \text{ esu} = 1 \text{ erg}^{\frac{1}{2}} \text{ cm}^{\frac{1}{2}}$$