appendix

A

Unit Conversions

Quantity	SI Units		Traditional Units
Activity	1 becquerel (Bq)	=	2.703×10^{-11} curies (Ci)
	3.7×10^{10} Bq	=	1 Ci
	1 MBq	=	27.03 μCi
	37 MBq	=	1 mCi
Absorbed Dose	1 gray (Gy)	=	100 rads
	1×10^{-2} Gy	=	1 rad
	1 mGy	=	0.1 rad
Equivalent Dose, Effective Dose	1 sievert (Sv)	=	100 rems
	1×10^{-2} Sv	=	1 rem
	1 mSv	=	0.1 rem
Exposure	1 C/kg air	=	3876 roentgen (R)
	2.58×10^{-4} C/kg air	=	1 R
Energy	1 joule (J)	=	6.242×10^{18} electron volts (eV)
	1.602×10^{-19} J	=	1 eV
Mass*	1 kilogram (kg)	=	6.02214×10^{26} unified atomic mass units (u)
	1.66054×10^{-27} kg	=	1 u
Pressure	1 pascal (Pa)	=	7.501×10^{-3} mm Hg (torr)
	1.333×10^{2} pascals (Pa)	=	1 mm Hg (torr)
	1 Pa	=	9.869×10^{-6} atmospheres (atm)
	1.013×10^{5} Pa	=	1 atm
Area	1 square meter (m^2)	=	1×10^{28} barns
	1×10^{-28} m^2	=	1 barn
Temperature*	x kelvin (K)	=	x – 273.15 degrees centigrade (°C)
	x + 273.15 K	=	x °C
Magnetic Flux Density	1 tesla (T)	=	1×10^{4} gauss (G)
	1×10^{-4} T	=	1 G

*Note that mass and temperature are the only SI base units in this table. All others are derived from these and/or the five other SI base units.

A useful source of further information on SI units and unit conversions is the National Institute of Standards and Technology website, http://physics.nist.gov/cuu/Units/index.html. Accessed 4 November 2011.