

Physics

DATA SHEET

Convert J/eV
for units →

Charge on electron, q_e	$-1.602 \times 10^{-19} \text{ C}$
Mass of electron, m_e	$9.109 \times 10^{-31} \text{ kg}$
Mass of neutron, m_n	$1.675 \times 10^{-27} \text{ kg}$
Mass of proton, m_p	$1.673 \times 10^{-27} \text{ kg}$
Speed of sound in air	340 m s^{-1}
Earth's gravitational acceleration, g	9.8 m s^{-2}
Speed of light, c	$3.00 \times 10^8 \text{ m s}^{-1}$
Electric permittivity constant, ϵ_0	$8.854 \times 10^{-12} \text{ A}^2 \text{ s}^4 \text{ kg}^{-1} \text{ m}^{-3}$
Magnetic permeability constant, μ_0	$4\pi \times 10^{-7} \text{ N A}^{-2}$
Universal gravitational constant, G	$6.67 \times 10^{-11} \text{ N m}^2 \text{ kg}^{-2}$
Mass of Earth, M_E	$6.0 \times 10^{24} \text{ kg}$
Radius of Earth, r_E	$6.371 \times 10^6 \text{ m}$
Planck constant, h	$6.626 \times 10^{-34} \text{ J s}$
Rydberg constant, R (hydrogen)	$1.097 \times 10^7 \text{ m}^{-1}$
Atomic mass unit, u	$1.661 \times 10^{-27} \text{ kg}$ $931.5 \text{ MeV}/c^2$
1 eV	$1.602 \times 10^{-19} \text{ J}$
Density of water, ρ	$1.00 \times 10^3 \text{ kg m}^{-3}$
Specific heat capacity of water	$4.18 \times 10^3 \text{ J kg}^{-1} \text{ K}^{-1}$
Wien's displacement constant, b	$2.898 \times 10^{-3} \text{ m K}$

useful in
mass defects



used in
Module 7

