

Physical Constants:

Vacuum permittivity: $\epsilon_0 = 8.85 \times 10^{-12} \text{ F/m}$

Planck's constant: $h = 6.63 \times 10^{-34} \text{ J}\cdot\text{s}$

Reduced Planck's constant: $\hbar = 1.05 \times 10^{-34} \text{ J}\cdot\text{s}$

Speed of light: $c = 3.00 \times 10^8 \text{ m/s}$

Electronic charge: $q = 1.60 \times 10^{-19} \text{ C}$

Electron rest mass: $m_o = 9.11 \times 10^{-31} \text{ kg}$

Proton rest mass: $m_p = 1.67 \times 10^{-27} \text{ kg}$

Boltzmann constant: $k_B = 1.38 \times 10^{-23} \text{ J/K}$

Energy unit conversion: $1 \text{ eV} = 1.60 \times 10^{-19} \text{ J}$