

$$e = 1.6 \times 10^{-19} \text{ C} \quad m_e = 9.11 \times 10^{-31} \text{ kg} \quad m_p = 1.67 \times 10^{-27} \text{ kg}$$

$$k = 9 \times 10^9 \text{ Nm}^2/\text{C}^2 \quad F = k \frac{|q_1||q_2|}{r^2} \quad \epsilon_0 = 8.85 \times 10^{-12} \text{ NC}^2/\text{m}^2$$

$$\mathbf{F} = q\mathbf{E}$$

$$E = k \frac{|q|}{r^2}$$

$$\Delta V = \frac{\Delta U}{q_0}$$

$$E = \frac{-\Delta V}{\Delta s}$$

$$C = \frac{\epsilon_0 A}{d}$$

$$V = \frac{kq}{r}$$

$$U = q_0 V$$

$$Q = CV$$

$$C = \kappa C_0$$

$$U = \frac{1}{2} QV$$