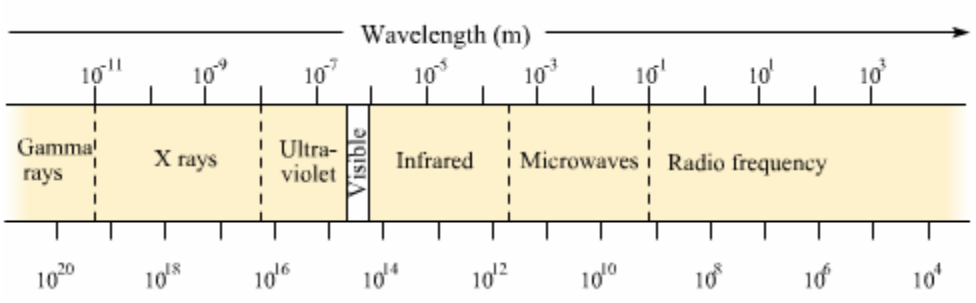
Chapter 6 Electronic Structure of Atoms
Equation Sheet

We will use the following equations in chapter 6



$$\nu\lambda = c \qquad \text{or} \quad c = \lambda f$$

$$E = h\nu$$

$$E_n = (-R_H)\left(\frac{1}{n^2}\right) \qquad \text{where} \quad n = 1, 2, 3, 4, \ldots$$

$$\Delta E = E_{final} - E_{initial} = h\nu$$

$$\nu = \frac{\Delta E}{h} = \frac{R_H}{h}\left(\frac{1}{n_i^2} - \frac{1}{n_f^2}\right)$$

$$\lambda = \frac{h}{mv}$$

$$Z_{eff} = Z - S$$