

1 Electron-volt to Joule conversion:

$$1\text{eV} = 1.6 \times 10^{-19}\text{J}$$

2 Energy level equation:

$$\Delta E = hf \quad ; \quad f = \frac{c}{\lambda} \quad (\text{J} ; \text{Hz})$$

Where ΔE is the difference between two energy levels (J), h is Planck's constant ($6.63 \times 10^{-34} \text{ m}^2 \text{ kg s}^{-1}$), c is the speed of light ($3 \times 10^8 \text{ m s}^{-1}$) and λ is the wavelength (m) of the particle.

3 Nomenclature:

Term	Description
Excited	When the atom goes \uparrow it is less stable
Grounded	The state in which the atom is most relaxed, located \downarrow