

See light when e^- goes from excited state
 gives off energy \downarrow
 ground state

Each color has a different wavelength

$$c = f \lambda$$

Constant 3×10^8 m/sec 3000000000

inversely related.

$$E = h f$$

energy constant. directly related

$c = f \lambda$ $E = h f$
 Solve for E in terms of λ

$$\frac{c}{\lambda} = \frac{f \cancel{\lambda}}{\cancel{\lambda}}$$

$$\frac{c}{\lambda} = f$$

$$E = h f$$

$$\frac{E}{h} = \frac{hc}{\lambda}$$

$$hc = E \lambda$$

inversely related

