

The energy content of one quantum of light is found to be 6.36×10^{-12} ergs. Calculate its wavelength in angstroms.

Answer:

Wavelength is λ .

$$\lambda = hc/E$$

$$c = 3 \cdot 10^{10} \text{ sm/s}$$

$$h = 1.054 \cdot 10^{-27} \text{ ergs/s}$$

$$E = 6.36 \cdot 10^{-12} \text{ ergs}$$

$$\lambda = 5 \cdot 10^{-6} \text{ sm} = 5 \cdot 10^2 \text{ angstroms}$$