Question #62949, Chemistry / General Chemistry

What is the wavelength of radiation that has a frequency of 6.912×10^{14} s^{-1}?

Solution:

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

c – light speed, 3.0×10^8 m/s

$$\lambda = \frac{3.0 \times 10^8 \frac{m}{s}}{6.912 \times 10^{14} \frac{1}{s}} = 0.434 \times 10^{-6} m = 434 \times 10^{-9} m = 434\ nm$$

Answer:
434 nm