Answer on Question #76389 – Chemistry – General Chemistry

The radiation generated by a microwave oven has a frequency of approximately $2.45 \times 10^9\ s^{-1}$. What is the wavelength of this radiation?

Solution:

c = speed of electromagnetic radiation = 3×10^8 m/s
f = frequency of the waves = $2.45 \times 10^9\ s^{-1}$
$\lambda = c / f = 3 \times 10^8 / 2.45 \times 10^9 = 0.122$ m