

例題 1 解答例

振動数は屈折で変化しないから

$$c = f\lambda_0 \quad \text{より} \quad f = \frac{c}{\lambda_0} = \frac{3.0 \times 10^8}{6.0 \times 10^{-7}} = 5.0 \times 10^{14} \quad \text{Hz}$$

屈折の法則 $\frac{\sin i}{\sin r} = \frac{c}{v} = \frac{\lambda_0}{\lambda} = \frac{n}{1} \quad \text{より}$

$$v = \frac{c}{n} = \frac{3.0 \times 10^8}{1.5} = 2.0 \times 10^8 \text{ m/s}$$

$$\lambda = \frac{\lambda_0}{n} = \frac{6.0 \times 10^{-7}}{1.5} = 4.0 \times 10^{-7} \text{ m}$$