

28 An electromagnetic wave is incident normally on a diffraction grating.

A second-order maximum is produced at an angle of 30° to the direction of the incident light.

The grating has 5000 lines per cm.

What is the wavelength of the wave?

- A** $2.5 \times 10^{-7} \text{ m}$ **B** $5.0 \times 10^{-7} \text{ m}$ **C** $1.0 \times 10^{-6} \text{ m}$ **D** $5.0 \times 10^{-5} \text{ m}$