

23 Monochromatic light of wavelength λ is incident normally on a diffraction grating with line separation d .

At which angle with the normal to the grating is a diffracted beam observed?

A $\sin^{-1} \frac{2\lambda}{d}$

B $\sin^{-1} \frac{\lambda}{2d}$

C $\sin^{-1} \frac{d}{\lambda}$

D $\sin^{-1} \frac{2d}{\lambda}$