

- 28** X-rays are produced when electrons are accelerated from rest by a potential difference and collide with a metal target.

The minimum wavelength of X-rays produced is  $\lambda_0$ .

What is the minimum wavelength of X-rays produced if the momentum of the electrons when they collide with the metal target is doubled?

**A**  $\frac{\lambda_0}{4}$

**B**  $\frac{\lambda_0}{2}$

**C**  $2\lambda_0$

**D**  $4\lambda_0$