

- 29** The work function of a certain metal is $4.0 \times 10^{-19} \text{ J}$. It is irradiated with ultra-violet radiation of wavelength 250 nm.

What is the maximum speed of the photoelectron emitted?

A $9.3 \times 10^5 \text{ m s}^{-1}$

B $9.4 \times 10^5 \text{ m s}^{-1}$

C $1.3 \times 10^6 \text{ m s}^{-1}$

D $1.6 \times 10^6 \text{ m s}^{-1}$