

29 What is the speed of an α -particle of mass $6.7 \times 10^{-27} \text{ kg}$ with a de Broglie wavelength of $2.3 \times 10^{-14} \text{ m}$?

A $2.2 \times 10^6 \text{ m s}^{-1}$

B $4.3 \times 10^6 \text{ m s}^{-1}$

C $8.7 \times 10^6 \text{ m s}^{-1}$

D $1.7 \times 10^7 \text{ m s}^{-1}$

30 Electromagnetic radiation of wavelength $2.0 \times 10^{-7} \text{ m}$ is directed onto the zinc emitter of a