

18 An alpha-particle has $2.2 \times 10^{-13} \text{ J}$ of kinetic energy.

What is the speed of the alpha-particle?

A $4.1 \times 10^6 \text{ m s}^{-1}$

B $5.8 \times 10^6 \text{ m s}^{-1}$

C $8.1 \times 10^6 \text{ m s}^{-1}$

D $1.2 \times 10^7 \text{ m s}^{-1}$