

- 28** Electrons are accelerated through a potential difference and produce similar diffraction patterns as a wave of wavelength 2.0 pm.

What is the kinetic energy of one of the electrons?

A $1.5 \times 10^{-14} \text{ J}$

C $6.0 \times 10^{-14} \text{ J}$

B $3.0 \times 10^{-14} \text{ J}$

D $1.2 \times 10^{-13} \text{ J}$

- 29** Which of the following nuclides will produce nuclide X by undergoing a series of decays to emit an