

**32** A scientist fires alpha-particles at a very thin sheet of gold and detects the particles that pass through.

Which statement about the results of the scattering experiment is correct?

- A** Alpha-particles are attracted to the nucleus of the atoms in the metal sheet.
- B** Half the mass of the atom is concentrated in the nucleus.
- C** Most of the alpha-particles are deflected, showing that the nucleus is very dense.
- D** Only a small number of alpha-particles are deflected, but some of these are deflected through large angles.