

**28** In the Rutherford  $\alpha$ -particle scattering experiments,  $\alpha$ -particles are directed at a thin gold foil.

What is a direct deduction from the results of the experiment?

- A**  $\alpha$ -particles are nuclei of helium atoms.
- B**  $\alpha$ -particles are positively charged.
- C** The nucleus of the atom is much smaller in size than the size of the whole atom.
- D** The nucleus of the atom is oppositely charged to the electrons.

**29** An atom of yttrium has a nucleon number of 39 and a proton number of 39.