

**29** Which of the following explains why there are no X-ray frequencies in the line spectrum of hydrogen?

- A** Hydrogen nuclei do not contain neutrons.
- B** Hydrogen cannot be raised to a sufficiently high temperature.
- C** The cut-off frequency cannot be reached.
- D** The ionisation energy of a hydrogen atom is too low.

**30** Which statement regarding alpha particle scattering experiment can be concluded?