

6 Two scientists, Geiger and Marsden, used alpha particles to investigate the structure of the atom.

(a) The scientists directed a beam of alpha particles at a thin strip of gold foil.

They observed that most of the alpha particles passed straight through the gold foil.

State the conclusion that was made about the structure of the atom from this observation.

(1)

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(b) A small number of the alpha particles were deflected by more than 90 degrees as they passed through the gold foil.

Explain why this shows that the centre of the atom has a positive charge.

(3)

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(Total for Question 6 = 4 marks)

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