

27 Which observation of the Rutherford α -particle scattering experiment led to the conclusion that an atom consists mostly of empty space?

- A** Only a small proportion of the α -particles were deflected.
- B** Only the α -particles with the greatest energy were undeflected.
- C** There were α -particles that were deflected but only by small angles.
- D** There were α -particles that were deflected by angles of greater than 90° .

28 The mass defect of the nuclide ${}^3\text{He}$ is 0.008286 u.