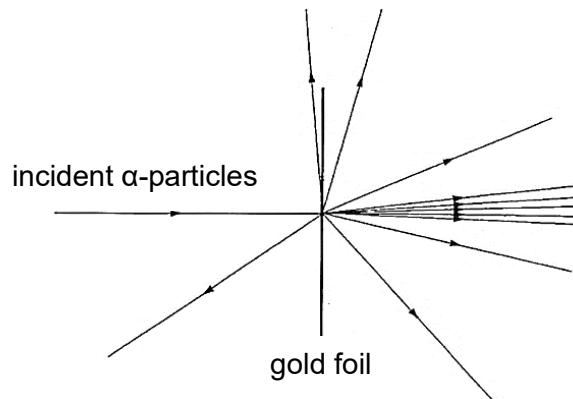


- 28 A thin gold foil is bombarded with α -particles as shown.



Which explanation best explains the corresponding observation?

| | Observation | Explanation |
|---|--|---|
| A | Most of the particles undergo little to no deflection. | The electrostatic repulsion acting on them is only along the direction of initial velocity. |
| B | Most of the particles undergo little to no deflection. | The mass of the nucleus is too little. |
| C | A tiny fraction of the particles is scattered at large angles. | The nucleus is mostly empty space. |
| D | A tiny fraction of the particles is scattered at large angles. | Bulk of the mass of the atom is concentrated in a very small positively charged region. |