

- 29** Rutherford's  $\alpha$ -particle scattering experiment consisted of an  $\alpha$ -particle source that directed its  $\alpha$ -particles onto gold leaf. The scattered  $\alpha$ -particles were observed when they hit a screen.

Which observation supported the idea that there is a small, massive charged nucleus at the centre of a gold atom?

- A** A large number of  $\alpha$ -particles were undeviated.
- B** A small number of  $\alpha$ -particles were deviated by more than  $90^\circ$ .
- C** The experiment had to be conducted inside an evacuated space.
- D** The screen produced small flashes of light when  $\alpha$ -particles struck the screen.

