



Atomic structure

Total Questions: 2

Q1. Question ID: 3196181 | Type: **SC**

Rutherford's experiment which established the nuclear model of the atom, used a beam of :-

- A. β -particles, which impinged on metal foil and got absorbed
- B. γ -rays, which impinged on a metal foil and got ejected electrons
- C. Helium atoms, which impinged on a metal foil and got scattered
- D. Helium nuclei which impinged on a metal foil and got scattered

Q2. Question ID: 456194 | Type: **IS**

In how many following pairs, first species has higher ionisation energy than second species :

- (i) Na^+ , Mg^{2+} (ii) S, Cl (iii) Cu, Zn (iv) Xe, Kr (v) B, Be (vi) O^{2-} , O
(vii) Al, Si (viii) Cl^- , Cl

Solutions

Q1. Answer: D

Solution: Rutherford model used α -particle beam $\text{He}^{2\oplus}$ (Doubly ionised Helium) or Helium Nuclei

Q2. Answer: N/A

Solution:

$\therefore \text{IE} \propto Z_{\text{eff}}$

$\text{IE} \propto \frac{1}{\text{size}}$