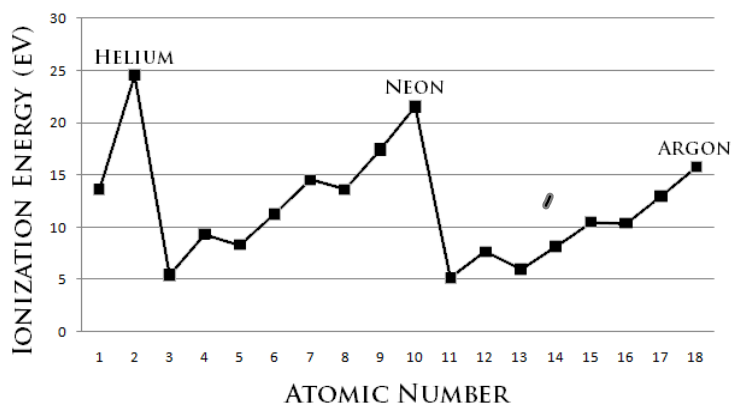


Ionization Energy-Trends

Definition- Energy needed to remove an e^- .



A. Down a column
I.E. decreases
- Electrons are in a higher E level & easier to remove.

B. Across a row - I.E. increases.
- Nuclear charge is greater (protons) & holds e^- 's tighter.

Examples -

1. Which has greater I.E. For Cl?

F electrons are closer to nucleus & harder to remove.

E levels

↑ answer

2. Which has greater I.E. Si or Ar

answer

Across a row of per. table, I.E.

increases because of greater nuclear charge, attracting e^- 's.

Rate of Reaction: Definition

↑
Speed

Examples - rate of decay - $\frac{\text{change amount}}{\text{time}}$
- " " growth
- " " melting
- vehicle speed km/h

Reactions -

$$\text{Rate} = \frac{\Delta \text{mass of reactant or product}}{\Delta \text{time}}$$

Also - colour, mass, temperature
voltage, volume.....

Read p.462, 463