

Hydrogen

Chapter 15: Hydrogen · Topic 1

Key Concept

Hydrogen is colourless, odourless, and highly flammable, existing as a diatomic molecule (H_2) under normal conditions.

Hydrogen can be prepared in labs by reacting metals like zinc with dilute acids, releasing hydrogen gas.

Hydrogen is used in various applications, like manufacturing ammonia, hydrogenating oils, and as a potential clean fuel source.

Understanding hydrogen's properties and uses is important given its potential role in future clean energy technologies.

Quick Revision Notes

- Hydrogen is the lightest, most abundant element.
- It's colourless, odourless and highly flammable.
- It exists as H_2 (diatomic molecule).
- It's prepared by reacting metals with acids.
- Zinc with dilute acid releases hydrogen gas.
- Hydrogen is used in ammonia manufacturing.
- It's used in oil hydrogenation.
- It's a potential clean fuel source.

Practice Questions

- 1 Research hydrogen's properties.
- 2 Discuss how hydrogen is prepared using zinc and acid.
- 3 Research a use of hydrogen in industry.
- 4 Explain why hydrogen might be a clean fuel.
- 5 Discuss why hydrogen is flammable.
- 6 Research hydrogen fuel cells.