

Chemical Reactions

Chapter 14: Chemical Reactions · Topic 1

Key Concept

A combination reaction occurs when two or more substances combine to form one product, like hydrogen and oxygen forming water.

A decomposition reaction occurs when one substance breaks down into two or more simpler substances, like water breaking into hydrogen and oxygen with electricity.

A displacement reaction occurs when a more reactive element replaces a less reactive one in a compound, like iron displacing copper from copper sulfate.

Understanding reaction types helps us predict outcomes and identify patterns in how substances interact chemically.

Quick Revision Notes

- Reactants transform into products.
- Combination reaction: substances combine into one product.
- Example: hydrogen + oxygen forms water.
- Decomposition reaction: one substance breaks into simpler ones.
- Example: water breaking into hydrogen and oxygen.
- Displacement reaction: reactive element replaces less reactive one.
- Example: iron displacing copper.
- Understanding types helps predict reaction outcomes.

Practice Questions

- 1 Give an example of a combination reaction.
- 2 Give an example of a decomposition reaction.
- 3 Give an example of a displacement reaction.
- 4 Discuss the difference between reactants and products.
- 5 Research a reaction type in daily life, like cooking.
- 6 Write a simple equation for a combination reaction.