

5 Types of Reactions

(predicting)

1. Combination 2 substances \longrightarrow compound

2. Decomposition 1 compound \longrightarrow 2 or more simpler substances

A. Metallic carbonates $\xrightarrow{\text{heat}}$ metal oxides + CO₂

B. Metallic hydroxides $\xrightarrow{\text{heat}}$ metallic oxides + H₂O

C. Metallic chlorates $\xrightarrow{\text{heat}}$ metallic chlorides + O₂

D. Some acids $\xrightarrow{\text{heat}}$ non-metallic oxides + H₂O

E. Some decomposition reactions are produced by electric current

3. Single Replacement element + compound \longrightarrow element + compound

A. replacement of metal in compound with more reactive metal

B. replacement of hydrogen in water by metals (K, Ca, Na)

C. replacement of hydrogen in acids by metals

D. replacement of halogens (by halogen)

4. Double Replacement 2 compounds \longrightarrow 2 new compounds

5. Combustion oxygen + substance \longrightarrow CO₂ + H₂O