

Lecture Notes - Module 7

Youtube Video: Types of Chemical Reactions

Types of Chemical Equations:

1. Synthesis.
2. Decomposition.
3. Combustion.
4. Single replacement.
5. Double replacement.

A synthesis reaction is a combination reaction. ^{Compound} simple to complex.

Example Reaction: $C(s) + O_2(g) \rightarrow CO_2(g)$

General Form:



A decomposition reaction is Broken down.

Example Reaction $H_2O(l) \rightarrow H_2(g) + O_2(g)$

General Form



A combustion reaction is mostly burning.

Example Reactions: $H_4(g) + O_2(g) \rightarrow CO_2(g) + H_2O(g)$

General Form: $2 H_5OH(l) + O_2(g) \rightarrow CO_2(g) + H_2O(l)$

Single Replacement is By itself one element.

Example Reactions: $Fe(s) + CuCl_2(aq) \rightarrow Cu(s) + FeCl_2(aq)$

General Form: $A + BC \rightarrow B + AC$

Double Replacement is switching places. Nobody gets kicked out.

Example Reactions: $BaCl_2(aq) + Na_2SO_4(aq) \rightarrow BaSO_4(s) + NaCl(aq)$

General Form: $AB + CD \rightarrow AD + BC$