|  |  |
| --- | --- |
| **ENDOTHERMIC REACTION** |  |
| "All those chemical reaction in which heat is absorbed in going from reactants to product are known as "Endothermic reactions." | |
| These reactions can not proceed without addition of heat. | |
| For example | |
| **2KClO3 + Heat  2KCl + 3O2** | |
| **CaCO3 + Heat  CaO + CO2** | |
| **Graphical Representation** |  |
| http://www.citycollegiate.com/endo.gif | |
| **EXOTHERMIC REACTION** |  |
| All those chemical in which heat is released in going from reactant to product are known as exothermic    reactions. | |
| For example | |
| **3H2+ N2  2NH3 + Heat 2SO2+O2  2SO3 + Heat** | |
| **Graphical Representation** |  |
| http://www.citycollegiate.com/exo.gif | |
| **CHEMICAL REACTION** |  |
| A process in which chemical change in the nature and composition of substances occurs is called chemical    reaction | |
|  |  |
| For example | |
| **CaCO3 + HEAT CO2 + CaO 3H2 + N2  2NH3** | |
| **CHEMICAL EQUATION** |  |
| A chemical equation is a symbolic formation of chemical change in terms of symbols and formula. | |
| **CHARACTERISTICS OF A CHEMICAL EQUATION** |  |
| 1. A chemical equation must be a representative of a chemical reaction.    2. It should represent molar quantities.    3. It should be balanced in terms of atoms and molecules of reactants and products. | |
| For example: | |
| **2SO2+O2  2SO3** | |
| **3H2 + N2  2NH3** | |
| **LAW OF CONVERSATION OF MASS** |  |
| The law of conservation of mass indicates that during any process, mass is neither created nor destroyed.    The law was put forward by a French chemist LAVOISER in 1785. | |
| Law of conversation of mass states that : | |
| 1. Mass can neither be created nor destroyed during a chemical reaction. 2. During a chemical reaction total mass of products is equal to the total mass of reactant | |