

Language of chemistry

① What do you mean by Chemical reaction?
Give one example in support of your answer.

Ans) Any chemical change in matter which involves its transformation into one or more new substances, is called a chemical reaction.

② Mention any three conditions for the reaction to take place. Give example for each.

Ans) Three conditions for the reaction to take place are :- (1) Close contact (2) Solution form (3) Heat

(1) Close contact - Sodium reacts with water violently when they come in contact with each other to produce two new substances, sodium hydroxide and hydrogen.

(2) Solution form - When ^{sodium} ~~solution~~ chloride solution is added to ~~aqueous~~ silver nitrate solution, a white precipitate of silver chloride and a soluble sodium nitrate are formed.

(3) Heat - Iron and sulphur when heated together react to produce iron sulphide. Without heating, they do not react even if they are in contact with each other.

Give an example for the reaction that takes place in the presence of heat. Write the word equation.

Iron and sulphur when heated together react to produce iron sulphide. Without heating, they do not react even if they are in contact with ~~each~~ each other.

Iron + Sulphur $\xrightarrow{\text{heat}}$ Iron sulphide

What do you mean by catalyst? Give an example.

A catalyst is a substance which changes the rate of a chemical reaction without ^{itself} undergoing any chemical change.

Manganese dioxide acts as a catalyst for the decomposition of potassium chlorate into potassium chloride and oxygen at a lower temperature.

⑤ Write the chemical equation for a reaction that takes place in the presence of light.

Ans) In photosynthesis, carbon dioxide and water react in presence of chlorophyll and light to produce glucose and oxygen.

