

4. Light energy

Chemical reactions which can take place only in the presence of **light** , are called **photochemical reactions**.

Example : Photosynthesis

Sunlight



5. Electricity

Chemical reactions which occur only when **electricity** is passed through the reactant , are called **electrochemical reactions**.

Electricity



6. Pressure

200 atm



7.Catalyst

A catalyst is a substance that changes the rate of a chemical reaction without itself undergoing any chemical change during the reaction.

- When a catalyst increases the rate of a chemical reaction , it is known as a **positive catalyst**.

Example : **iron** acts as a positive catalyst in the manufacture of ammonia from Hydrogen and Nitrogen.

- When a catalyst decreases the rate of a chemical reaction , it is known as **negative catalyst**.

Example : **Phosphoric acid** acts as a negative catalyst in the decomposition of hydrogen peroxide.

Promoters : Substances that improve the efficiency of a catalyst are called promoters.

Molybdenum act as a **promoter** to increase the efficiency of the catalyst iron , in the formation of ammonia.

Enzymes

Enzymes are the complex organic compounds made up of protein units.

Enzymes act as catalysts for biochemical reactions.

Example :Amylase , pepsin ,Maltase