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Topic - CATALYSIS

Class - B.Sc. Part II, Paper III A, Group - A (Hons)

CATALYST \Rightarrow

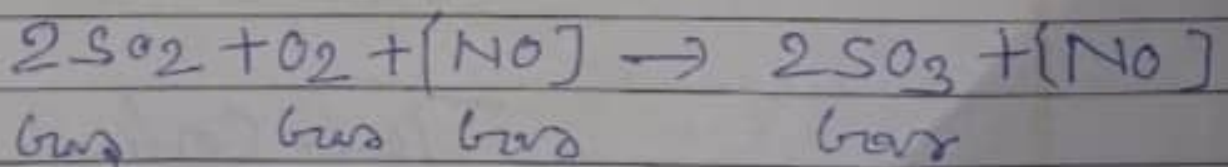
A catalyst is a substance which influences the speed of a chemical reaction without itself undergoing any chemical change at the end of the reaction.

Catalysis is mainly divided into two types.

Homogeneous Catalysis and Heterogeneous Catalysis.

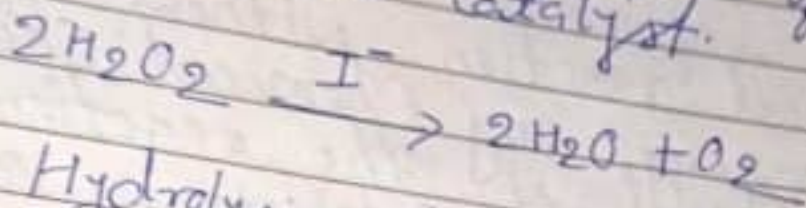
1) Homogeneous Catalysis \Rightarrow When the catalyst is present in the same phase as that of the reactants, the phenomenon is known as homogeneous catalysis.

1) Homogeneous catalysis in gas phase
i) oxidation of Sulphur dioxide (SO_2) into Sulphur trioxide (SO_3) with nitric oxide (NO) as catalyst.

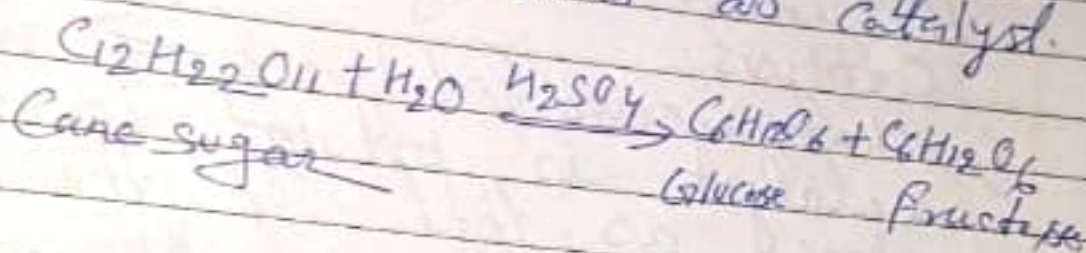


b) Homogeneous catalysis in solution phase
Many reactions in solutions are catalysed by (H^+) and bases (OH^-)

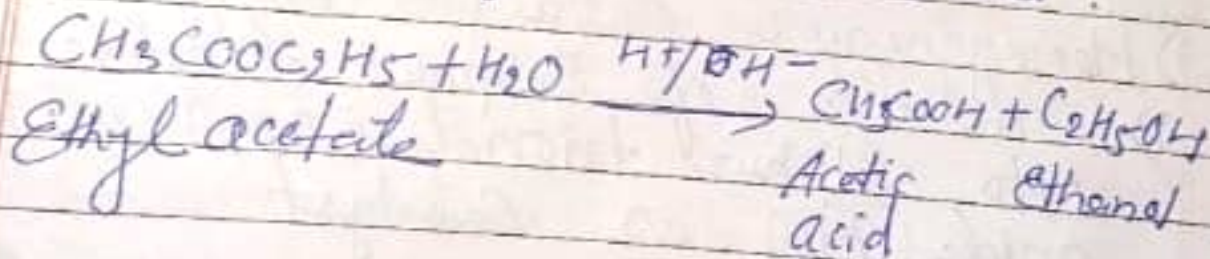
i) Decomposition of hydrogen peroxide (H_2O_2) in the presence of iodide ion (I^-) as catalyst.



ii) Hydrolysis of cane sugar in aqueous solution in the presence of mineral acid as catalyst.



iii) Hydrolysis of an ester in the presence of acid or alkali.



To be Continued