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Class ⇒ B.Sc.(Hons.) Part II
Subject ⇒ Chemistry
Paper ⇒ III A
Chapter ⇒ Colloids (Group-A)
Topic ⇒ Purification of Colloids (Dialysis)

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Purification of Colloids

The process in which pure sol is obtained by removing excess of electrolytes is called purification of colloids.

The purification of colloids is done by following process.
(i) Dialysis (ii) Electrodialysis
(iii) Ultrafilteration.

DIALYSIS

The process of removing the dissolved electrolytes from the sol by diffusion through a permeable membrane is called **dialysis**.

The apparatus used for dialysis is called a **dialyser**.

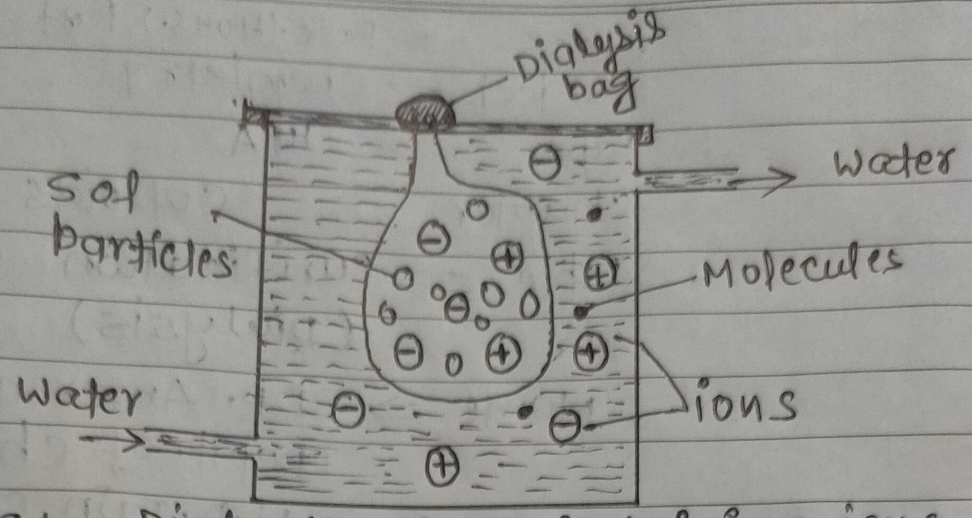

Fig:- Dialysis of sol containing ions and molecules.

When a sol containing dissolved ions (electrolyte) or molecule is placed in a bag of permeable membrane made of parchment paper or cellophane sheet dipping in pure water, the ions diffuse through the membrane. By using a continuous flow of fresh water, the concentration of the electrolyte outside the membrane tends to be zero. Thus diffusion of the ions into pure water remains brisk all the time. In this way, practically all the electrolyte present in the sol is removed easily.

When electric field is applied the process of dialysis is accelerated.

The process of dialysis in which electric field is applied is called Electrodialysis.