EXPERIMENT No.4

AIM: To prepare a colloidal sol of ferric hydroxide.

THEORY: Ferric hydroxide forms a lyophobic sol with water which is the dispersion medium. It is prepared by the hydrolysis of ferric chloride with boiling distilled water as per the reaction:

 $FeCl_3(aq) + 3H_2O \rightarrow Fe(OH)_3 + 3HCl (aq).$

The HCl formed during the reaction tries to destabilize the sol and therefore should be removed from the sol by dialysis. A wine red sol of ferric hydroxide is obtained.

PROCEDURE:

EXPERIMENT	OBSERVATION	INFERENCE
Take 50 ml of distilled water in a beaker and heat it to about 100°C. Add the solution of FeCl ₃ to water with stirring.	A wine red sol is obtained	Sol of ferric hydroxide has been prepared

RESULT- Colloidal sol of ferric hydroxide has been prepared.