REFERENCE ELECTRODES

1. CALOMEL ELECTRODE:

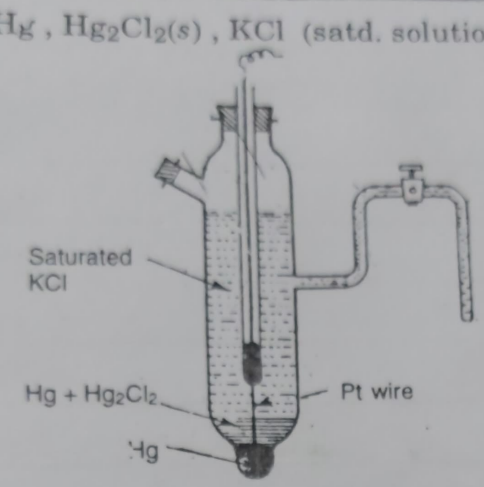

Fig. 16. Saturated calomel electrode.

CONSTRUCTION: It consists of a tube in the bottom of which is a layer of mercury, over which is placed a paste of $Hg + Hg_2Cl_2$. The remaining portion of cell is filled with Saturated KCl. A platinum wire, dipping into the mercury layer is used for making electrical contact. The side tube is used for making electrical contact with a salt bridge

The electrode reaction taking place in this half cell is

$$Hg Cl_2 + 2e^- \rightarrow Hg(l) + 2Cl^-(aq)$$

The Electrode potential of Saturated Calomel electrode is 0.2422V

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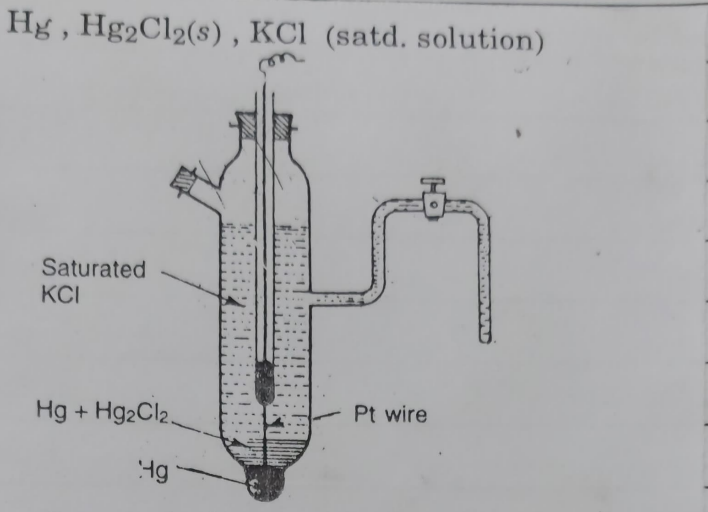

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