

Basics of electrolysis

- **Electrolysis:** Electrolysis is the breakdown of an ionic compound in the molten or an aqueous state by passing electric current through it.
- **Cell:** A cell is a device that changes chemical energy to electrical
- **Electrodes:** These are rods that carry electric current to and from the electrolyte.
- **Decompose:** When an ionic compound breaks down due to passage of electric current we say that it has got decomposed.
- **Electrolyte:** It is the compound that conducts electricity when in molten or in aqueous state during electrolysis.
- **Inert electrode:** Inert electrode is an electrode that serves only as a source or sink for electrons without playing a chemical role in the electrode reaction.
- **Anode:** It is the positive electrode.
- **Cathode:** It is the negative electrode.
- **Anion:** It is the negative ion
- **Cation:** It is the positive ion.
- **Electroplating:** It is the method in which a thin layer of one metal is put on the top of another metal.
- **Examples of inert electrodes:** Graphite(Carbon), platinum, gold and rhodium,
- **Examples of reactive electrodes:** Copper and Silver
- **Reduction** always happens at the cathode (Reduction is the loss of electrons). **[RIG]**
- **Oxidation** always happens at the anode (Oxidation is the gain of electrons). **[OIL]**
- The **electrolyte** should be either in the **molten or the aqueous state** as in these states the ions are free to move.
- **Metals or hydrogen** are formed at the **negative electrode** and **non metals (other than hydrogen)** are formed at the **positive electrode**.