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).
- 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.