

POWER POINT PRESENTATION BASED ON ELECTROPLATING

Electroplating is a process that uses electrical current to reduce dissolved metal cations so that they form a coherent metal coating on an electrode

Electroplating of copper :-



For electroplating what you need?

For this, all you need is

Copper Sulphate



Copper plate



You also need :-

A Beaker



A Battery



And Water



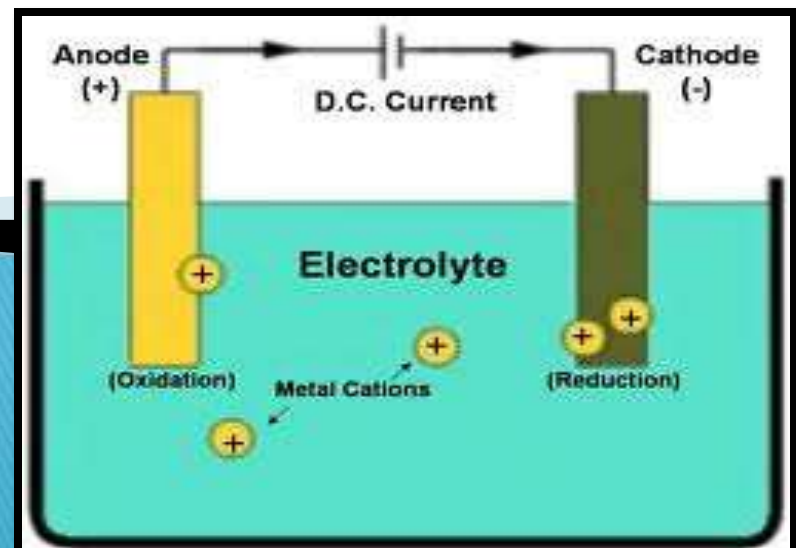
How electro-deposition works?

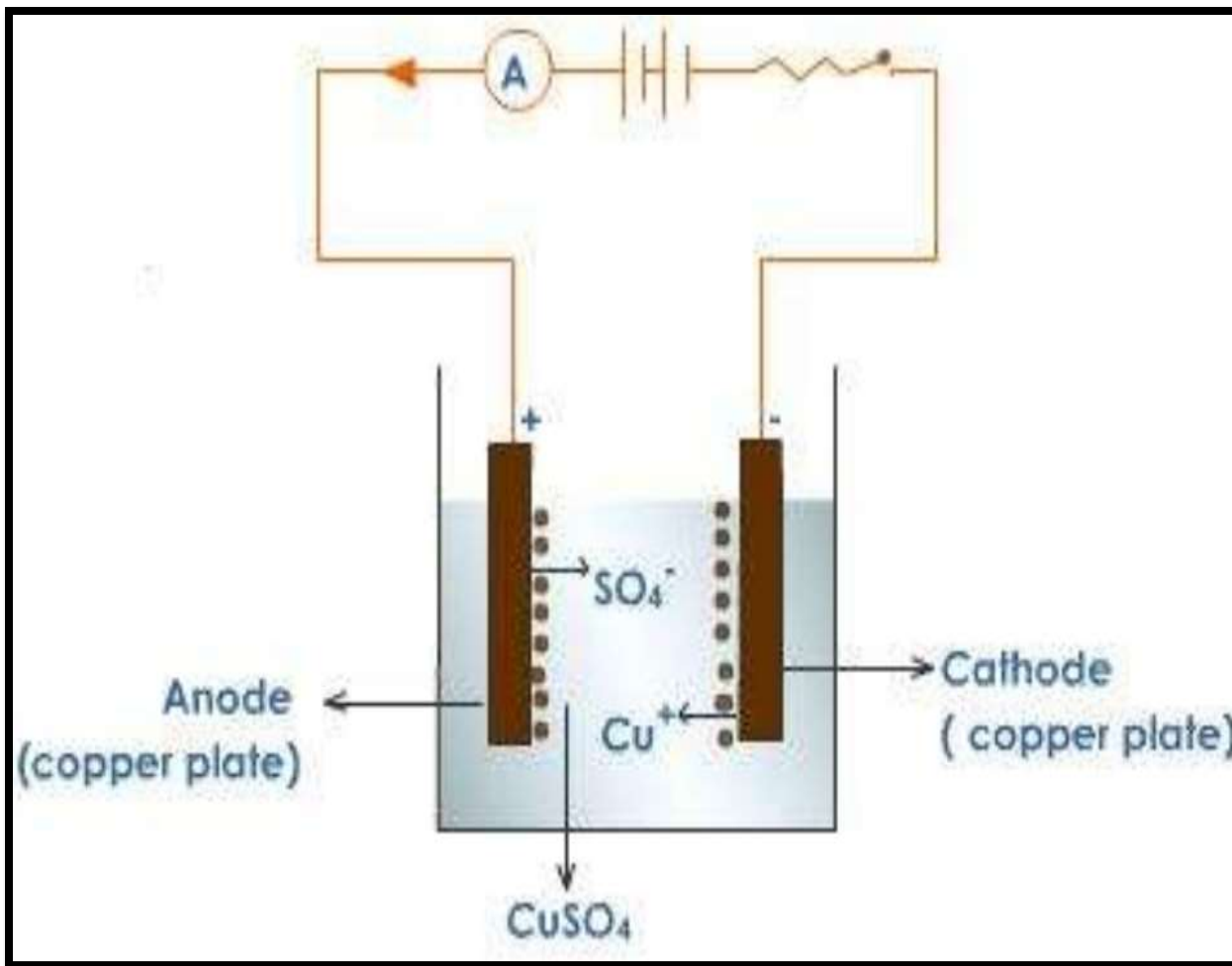
Cathode: The Metal to be plated by another metal

Anode: The metal to be plated on Cathode

Electrolyte: Conducting solution containing metal ions in which Anode and Cathode are placed.

Power source: Supplies a direct current to the anode and oxidizes the metal atoms which dissolve in the solution.





➤ The ions travel on the electric current to the cathode, where reduction (gain of electrons) happens, plating the copper ions into the key

Ornaments,

➤ Using electroplating many metals can be coated like:-



Coins, etc.



Uses of Electroplating:

- Electroplating is widely used in industries such as - automobile, airplanes, electronics, jewelry, toys, cars etc.



The other uses include:

➤ To give metal objects a better appearance and attraction such as jewelry, trophies and medals are coated with Gold, Silver, Brass and Rhodium.



➤ To protect metal objects from corrosion or rust e.g. iron plates used in ships which remains in contact with sea-water are plated with Zinc to prevent corrosion.



More uses:

To obtain desired surface properties such as smoothness and uniform surface finishing for the product.

To reduce friction-
Nickel coating for connectors and increase conductivity

