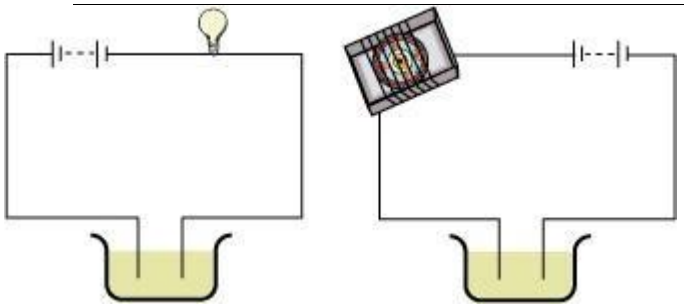
# Chemical Effects of Electric Current

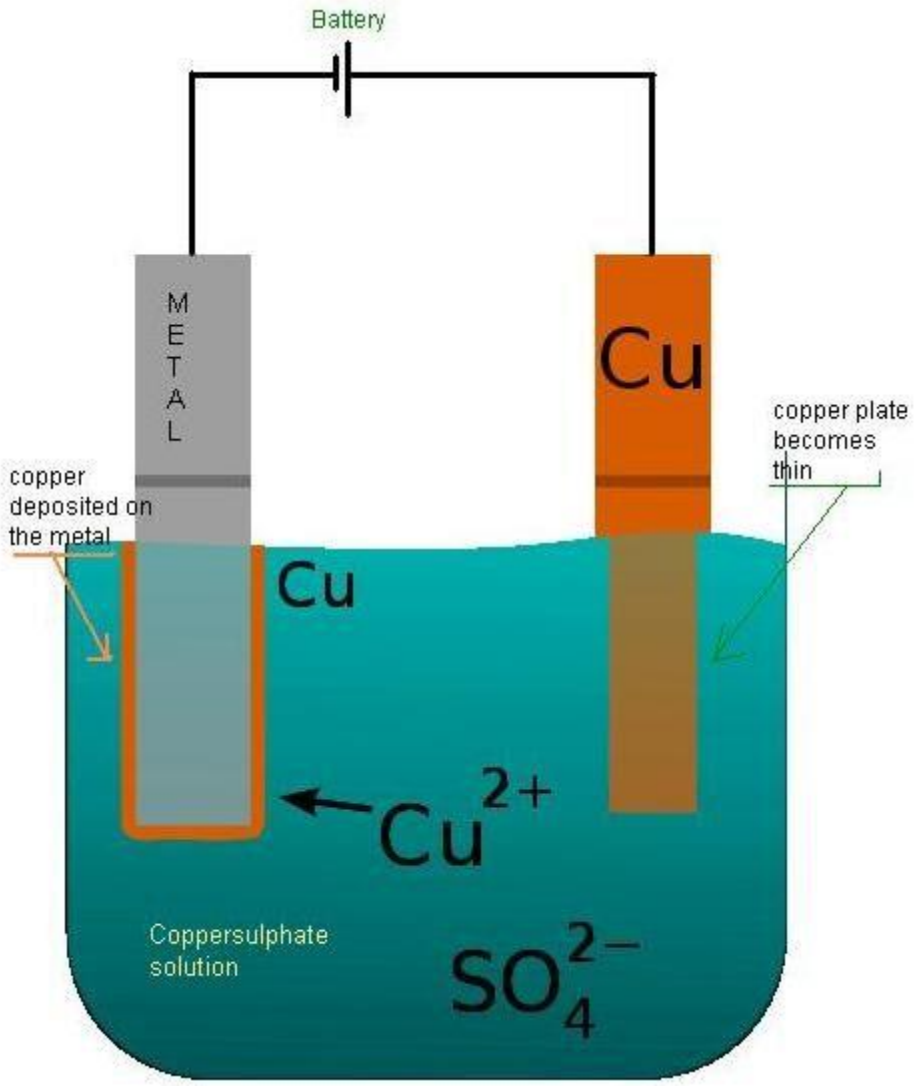


- The bulb will glow or the magnetic needle will show deflection if the liquid in the beaker is a good conductor of electricity.
- Greater the deflection of needle or brighter the light, better is the conductivity of the liquid.

| Good conductor | Poor conductor |
|---|---|
| Lemon Juice | Coal tar |
| Vinegar | Distilled water |
| Acid solutions | Honey |
| Basic solutions | Vegetable oil |
| Salty water | Kerosene |

- Conducting liquids are also called electrolytes.
- The electric current passing through a conducting liquid (electrolyte) causes chemical reactions (electrolysis).
- A chemical reaction takes place when an electric current passes through a conducting solution.
- A greenish-blue spot on the potato around the positive electrode is seen if current is passed through wire.
- The chemical effects of electric current are used in the working of electrochemical cells.
- Electrochemical cells which generate current are called **voltaic cells** or **galvanic cells**. Common batteries also consist of one or more such cells.

- Electroplating is the process of coating a metal using electric current and electrolyte.




- The above picture explains how copper can be deposited on a different metal using electroplating.

- Electroplating can be used to give shiny and scratch proof finish (properties of chromium) to objects made from cheaper metals. Also, a coating of zinc is deposited on iron to protect it from formation of rust.