

ELECTROCHEMISTRY (LECTURE - 2)

Conductors : Substances which allow the flow of current through them are called conductors:-

It is of two types :-

(i) Metallic conductors or Electronic conductors

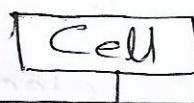
- Substances which conduct electricity due to presence of free electrons are called metallic conductors or electronic conductors.
- conductivity decreases with rise in temperature due to increase resistance.
- conductivity of metals are generally high.
- They obey Ohm's law but Faraday law of electricity do not obey.

(ii) Electrolytic conductors or solution conductors

- Substances which conduct electricity due to movement of ions are called electrolytic conductors or solution conductor.
- They involve chemical change.
- conductivity increases with rise in temp due to increase ionic mobility.
- They obey Ohm's law as well as Faraday law of electrolysis ..

Cell → cell is an arrangement which consist electrode and electrolyte.

Electrode → It is generally a rod or plate of a good conductor (mostly metal) which is used to supply current in/out of the electrolytic solution.



Electrolytic cell

- They convert electrical energy into chemical energy
- Chemical reaction carried out by passing electricity
- In this cell non-spontaneous redox reaction occurs
- It consists of two electrode and one electrolyte
- Salt bridge is not required

Oxidation →

- Anode = +ve
- Cathode = -ve

Electrochemical cell
or
Galvanic cell

- They convert chemical energy into electrical energy.
- Electricity produced after chemical reaction
- In this cell spontaneous redox reaction occurs
- It consists of two electrode and two electrolyte
- Salt bridge is required

→ In this cell —

- Anode = -ve
- Cathode = +ve.