Batteries

Electrochemical Terms and Conventions

Current

- It is the flow of electrons through a conductor.

Conductor

Conductor is a material that allows electric current to pass through it. Conductance is the ability of a material to conduct the electricity.

Examples : All metals, graphite, aqueous solution of acids and bases and fused salts. The conductors are broadly classified into two types :

I) Metallic conductors. (b) Electrolytic conductors

Electrode

Electrode is a metallic rod/bar which conducts the electricity.

In electrochemical cells, there are two electrodes:

Anode where oxidation takes place.

Cathode where reduction takes place.

Electrolyte

Electrolytes are Chemicals (or) soluble salt of Metals that conduct electricity when dissolved in water

Anodic Compartment

It contains anode metal and its electrolytic solution where oxidation reaction occurs.

Cathodic Compartment

It contains cathode metal and its electrolytic solution whereereduction reaction occurs.

Half Cell

It is a part of the cell. It containing electrode dipped in electrolytic solution.If oxidation occurs at the electrode then it is called oxidationhalf cell.If reduction takes place at electrode then it is called reduction half cell.

Cell

A cell is a single arrangement of two electrodes and an electrolytic solution capable of yielding electricity due to chemical reaction within the cell

Types of Cells

There are two types of cells

Electrolytic Cells 2) Electrochemical Cells

ELECTROLYTIC CELLS

Electrolytic cells are the device which converts

electrical energyinto chemical energy.

Example : Electrolysis of an acid solution.

ELECTROCHEMICAL CELLS

Electrochemical cells or galvanic cells are the device which converts chemical energy into electrical energy.Example: Daniel cell

BATTERIES

- Batteries are collection of one or more cells , connected in either series or parallel.
- Conversion of chemical energy into electrical energy.
- Portable source of electrical energy