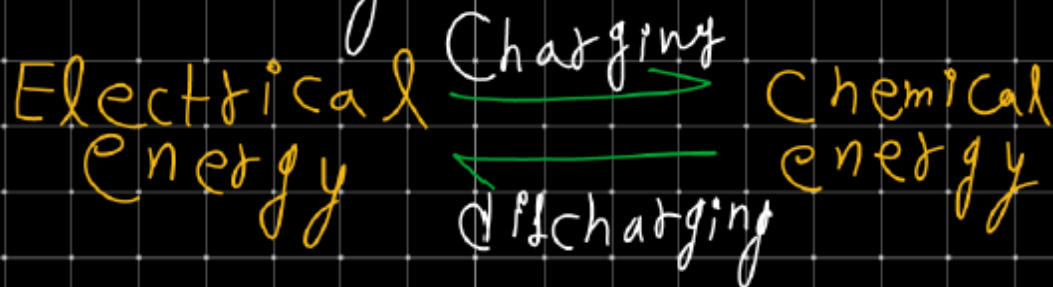


ELECTROCHEMISTRY

max no.
(2) = 2

m.m. = 8

The branch of science which deals with study of interconversion of electrical energy to chemical energy & vice versa known as electrochemistry.



Conductor \div There are the substance which
Conduct electricity.

There are two types of conductor

- (1) Electrolytic Conductor
- (2) metallic Conductor.

Electrolyte

aq. solⁿ

\div There are the substance
which produce ions in
solution or molten state

Electrolyte

Degree of
dissociation

Strong electrolyte

$$\alpha = 100\%$$

Ex: Strong acid,
Strong base &
all types of salt.

Weak electrolyte

$$\alpha \ll 100\%$$

Ex: Weak acid &
Weak base.

Electrolytic Conductor

- 1) Charge carrier \Rightarrow free ions
- 2) Transfer of matter takes place.
- 3) Chemical changes occur
- 4) Resistance is due to inter ionic force of

mettalic Conductor

- Charge carrier \Rightarrow free e^- s
- No transfer of matter
- No chemical changes.
- Resistance is due to vibration of kernel.

attraction and
viscosity of medium

π I.o.f. a $\downarrow\downarrow$

mobility π Conductance
 \downarrow
resistance $\downarrow\downarrow$

(5) Obey Faraday law of
electrolysis

π Vibration of π
kernel π

resistance π Conductance $\downarrow\downarrow$

Do not obey Faraday law of
electrolysis.

In Electrolytic Conductors Some useful terms

(1) Resistance (R) obeys ohm's law

$$V \propto I$$

$$\boxed{V = IR}$$

unit of R

ohm or Ω

(2) Conductance (G) reciprocal of resistance.

$$G = \frac{1}{R}$$

unit: Ω^{-1} or mho or siemens