

Definitions contd.

- Electrolyte

A molten substance or solution that allows electricity to pass through causing it to decompose, for example, molten salts, aqueous solutions of acids, alkalis and salts.

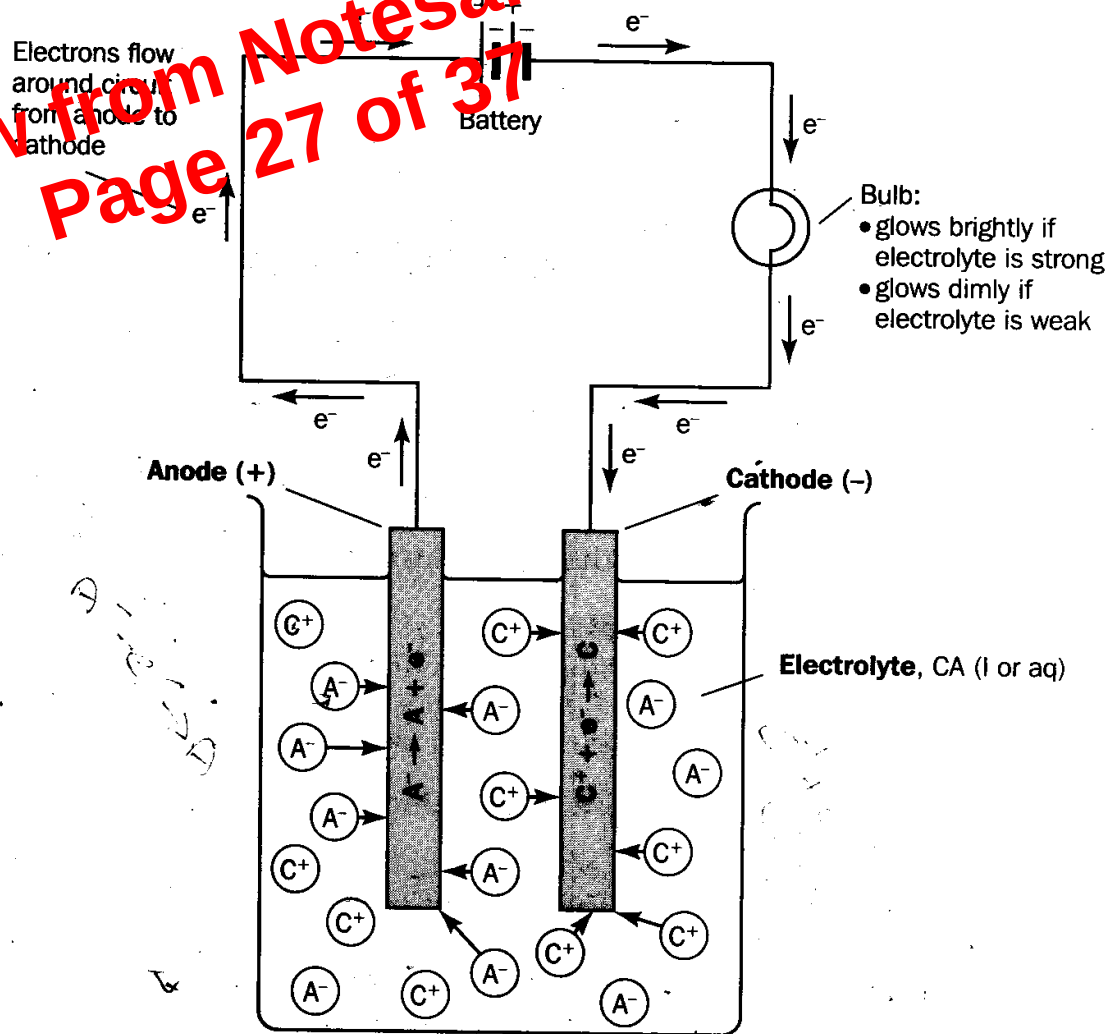
Electronegative

- Electron attracting ability

- Is a chemical property that describes the tendency of an atom to attract electrons towards itself and thus the tendency to form negative ions.

Theory of electrolysis

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The theory of
electrolysis

Anions (-) are attracted to the anode (+) where they give up electrons (lose electrons) to form neutral atoms, i.e. they are discharged.

NB *Oxidation therefore occurs at the anode.*

(oxidation is loss of electrons-OIL)

Electrons, lost at the anode, are sucked along (enter, or attracted to) to the positive (+ve) terminal of the battery and pushed out of the negative terminal to the cathode.

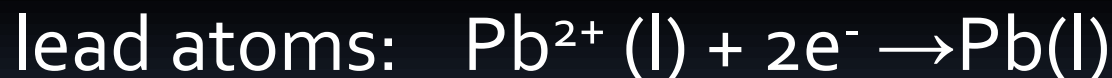
i.e. Electrons lost at the anode enter the external circuit and re-enter the electrolytic cell at the cathode.

The number of electrons lost at the anode must be the same as the number gained at the cathode.

Reaction occurring at the cathode

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Pb^{2+} ions are attracted to the cathode and discharged, i.e. they gain electrons to form



Molten lead drips off the cathode.