

Modern Battery

Zinc-air battery

Zinc air batteries are the batteries which breathe air that is they use oxygen directly from the air to bring about the electrochemical reaction.

These are basically alkaline batteries in which the cathodic active material is not stored in the cell.

Construction:

Anode is composed of granulated zinc powder mixed with an aqueous solution 30% KOH and a gelling agent to immobilize the material.

Cathode is composed of mixture of carbon and the catalyst and a gelling agent held on a nickel coated steel matrix.

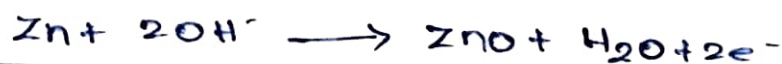
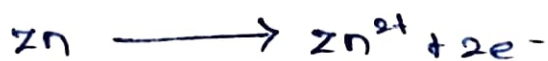
Several hydrophobic, gas permeable, thin layers of Teflon are provided to steady the air entry.

Electrolyte contains 30% KOH.

There is also vent for the entry of air or O_2 , into the cell.

The container is made of glass and has a separator made of nylon.

At the anode



At the cathode



Over all reaction



Battery offers

EMF of

1.05 - 1.35V

