

## Modern Batteries

## Batteries - Introduction

An electrochemical power source or battery is a device which converts the chemical energy derived from a chemical reaction into electrical energy.

The chemical reaction involved in a battery is a redox reaction and some of these reactions are reversible. The reverse reaction can be brought out by supplying energy i.e. by applying the current to the system from an external source. This process is called charging of the battery. Such batteries in which the cell reactions can be reversed by passing direct electric current in opposite direction are called secondary batteries. Lead-acid accumulators, nickel battery, etc., are secondary batteries. Batteries that cannot be charged in this manner, because the cell reactions are irreversible, are called primary batteries. Primary batteries are the most common batteries available today because they are cheap and simple to use. Carbon-zinc dry cells, alkaline batteries, mercury batteries, lithium batteries, etc. are eg of primary batteries.