

**UNIT III**  
**ELECTRICAL ENERGY STORAGE**

**Nickel – Cadmium battery – NICAD Battery**

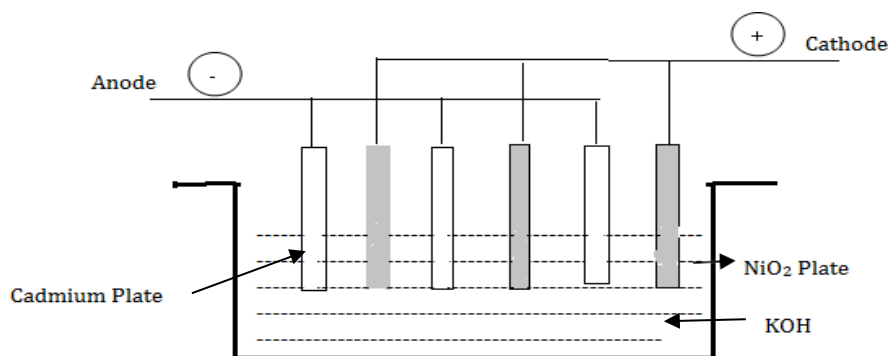
**Description:**

Anode: cadmium

Cathode – NiO<sub>2</sub> plate

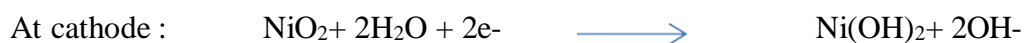
Electrolyte – KOH

**Diagram**



**Working**

a) Discharging

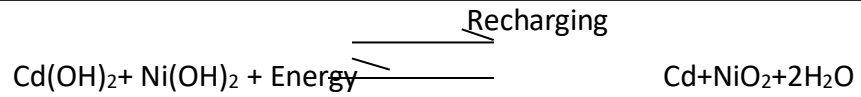


b) Recharging

- ❖ For Recharging current is passed in the opposite direction.
- ❖ Cd gets deposited on anode and NiO<sub>2</sub> deposits on cathode.



Both discharging and recharging reaction can be shown as,



### Advantages

- 1) It is smaller and lighter
- 2) It has longer life than Pb-Acid battery
- 3) Can be packed in a sealed container

### Disadvantages

It is expensive than Pb-Acid battery

### Applications

It is used in calculator, transistor, cordless appliances etc.