

# THE BATTERY INDUSTRY

## Battery uses



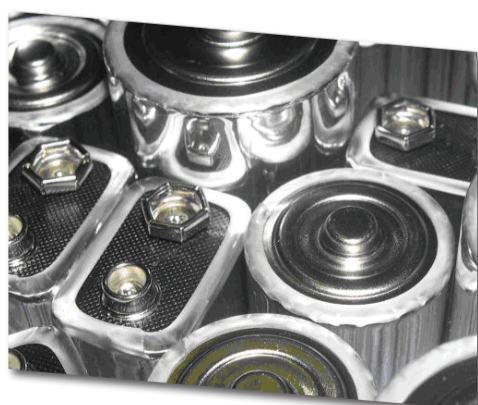
Cellular phone



Laptop battery

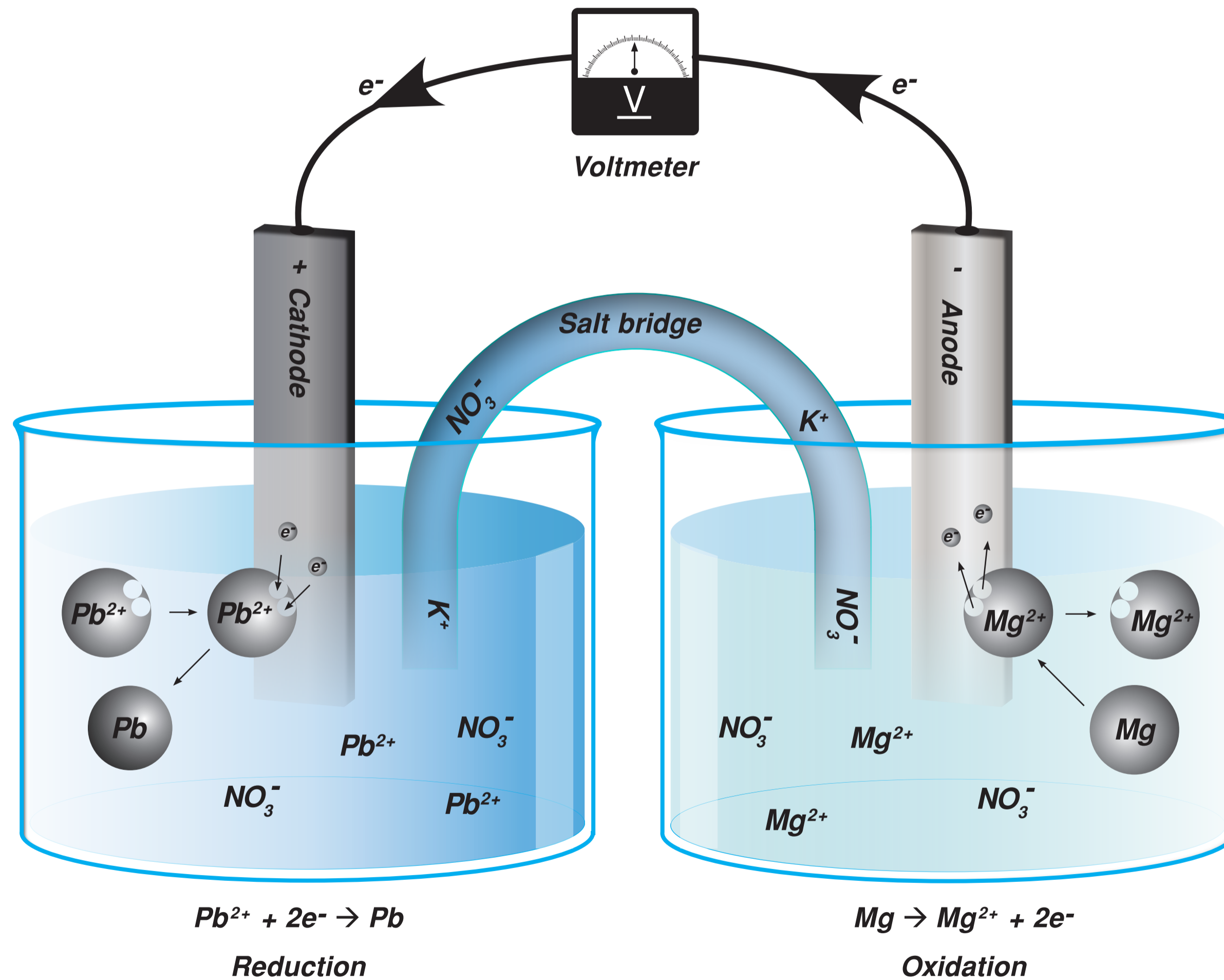


Car battery



Household batteries

**Voltaic cells (Galvanic cells)**  
A spontaneous chemical reaction creates a potential difference which causes current to flow

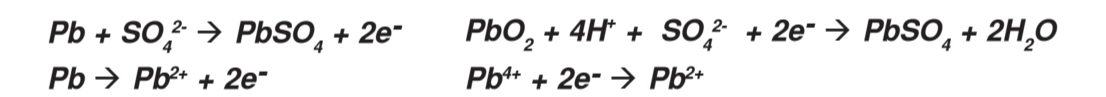
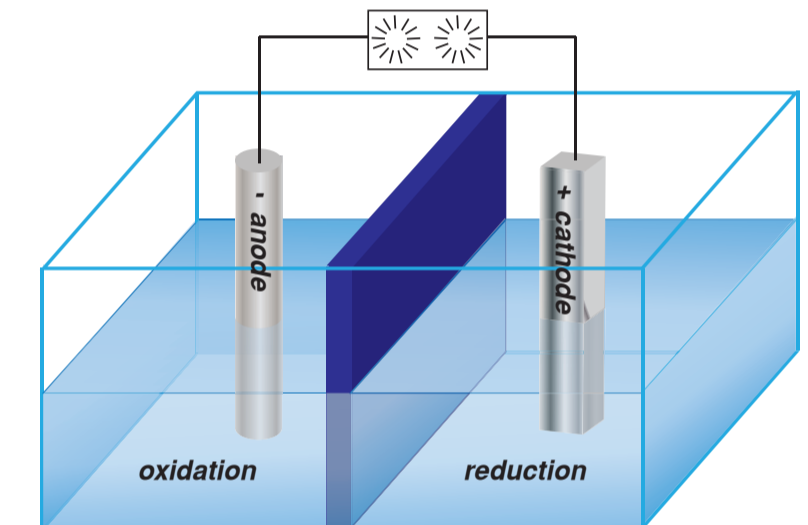


## Lead-acid cells (car battery)

Secondary (rechargeable) cells

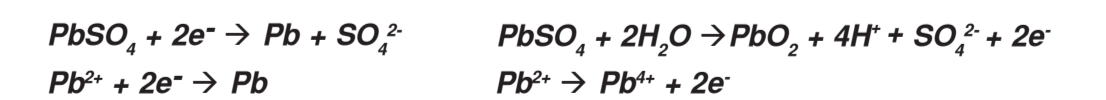
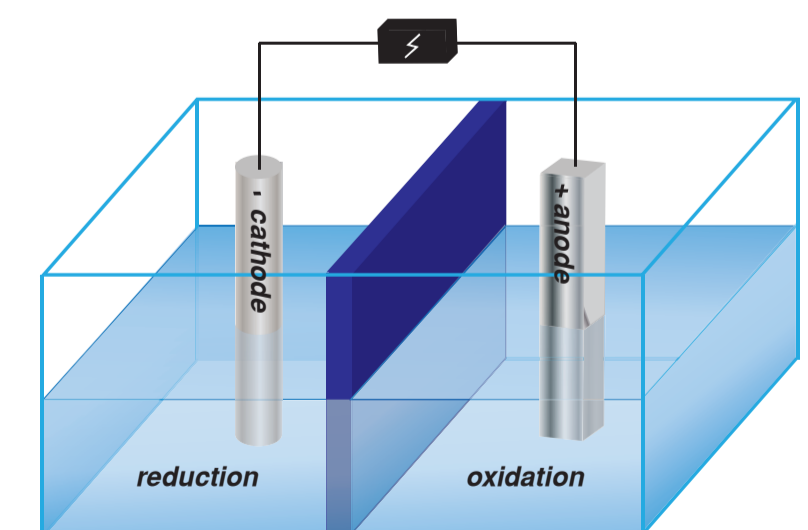


### Discharge cycle



Chemical energy  $\rightarrow$  Electrical energy

### Charge cycle



Electrical energy  $\rightarrow$  Chemical energy