

電池



自然に起こる酸化還元反応から電気エネルギーを取り出す装置を電池といいます。電池では負極で酸化反応が起こり、正極で還元反応が起こります。

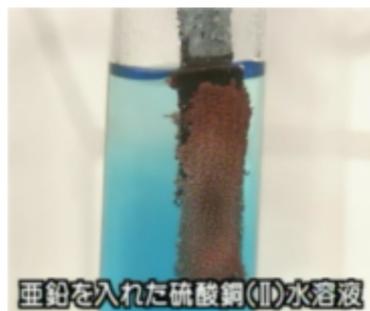
生活の中で活躍している電池のしくみを学びましょう。

今日のポイント

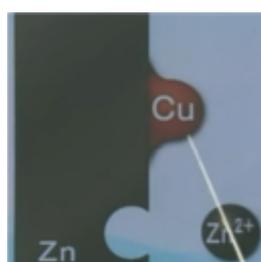
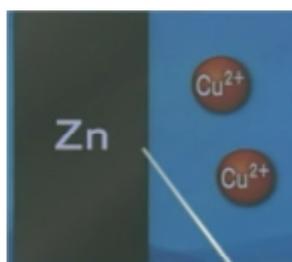
① 電池のしくみ

② 実用電池

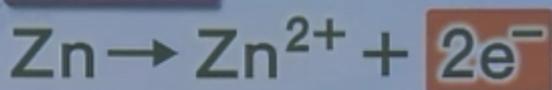
③ 燃料電池



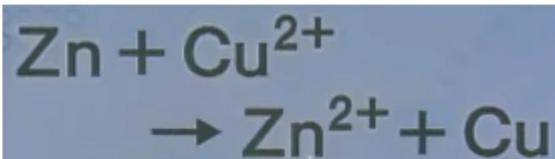
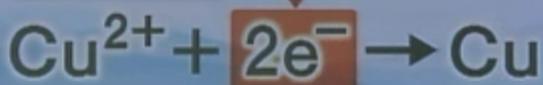
亜鉛を入れた硫酸銅(II)水溶液



酸化された

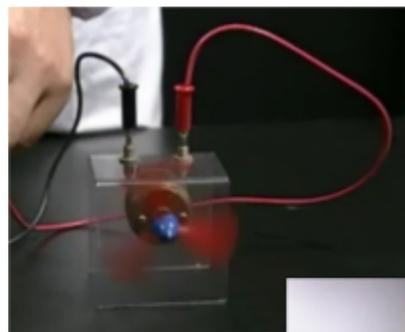
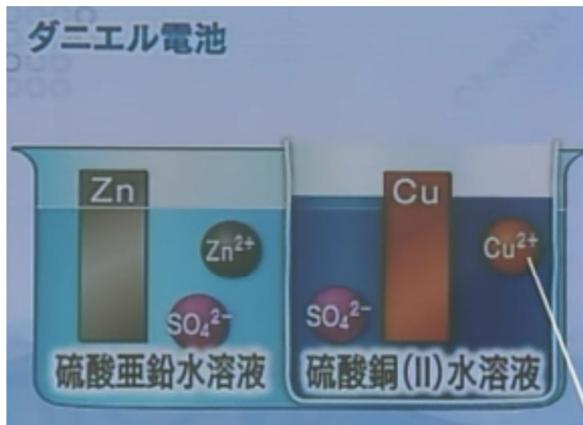


還元された



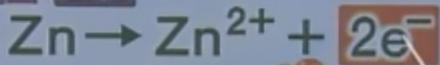
イオン化傾向



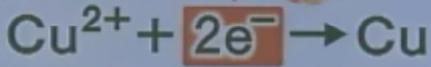


ダニエル電池

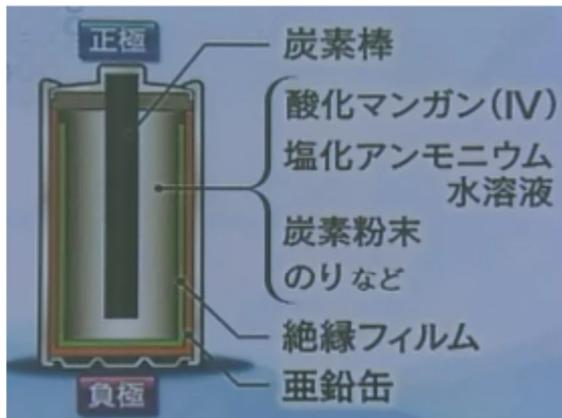
負極 酸化



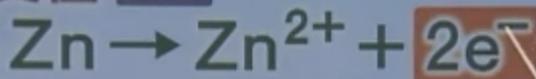
正極 還元



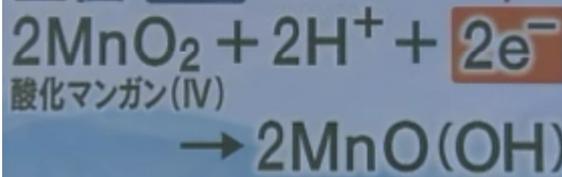
起電力 約1.1V

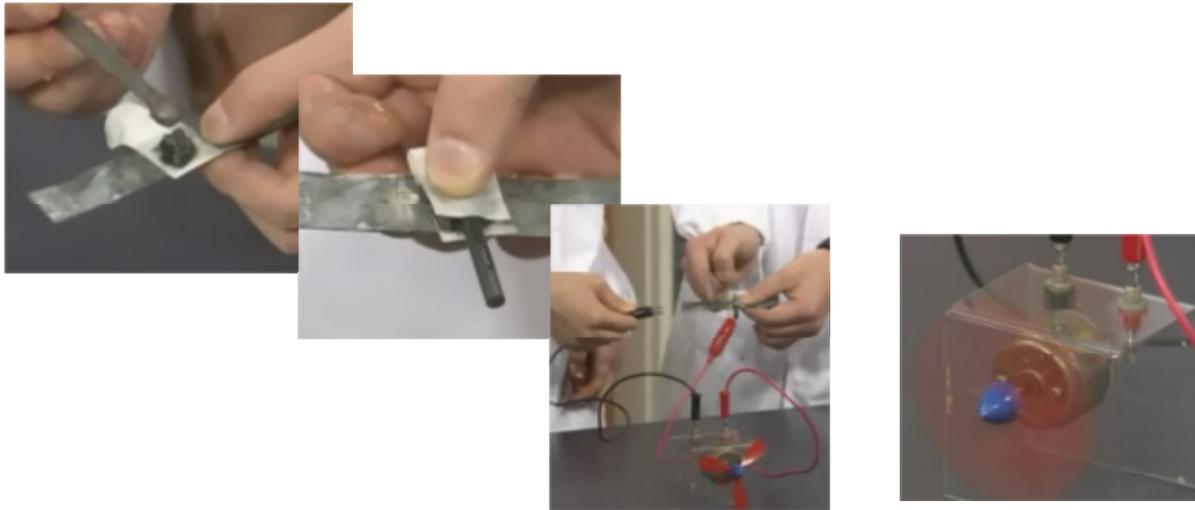


負極 酸化

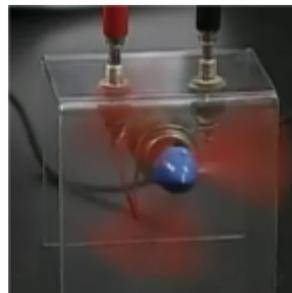
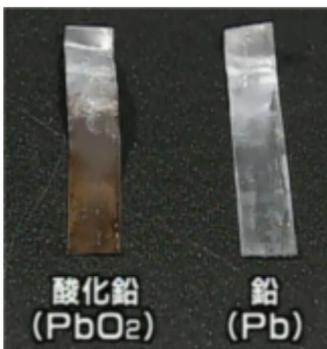
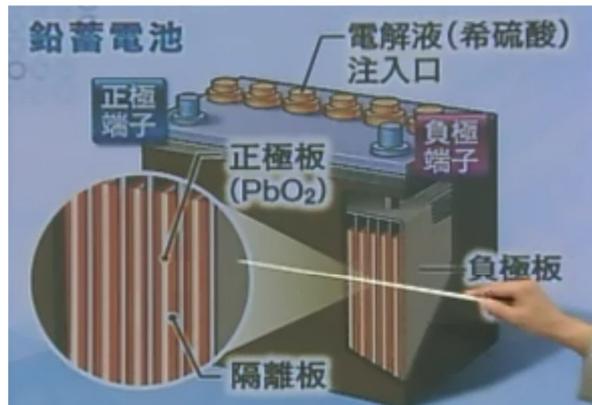


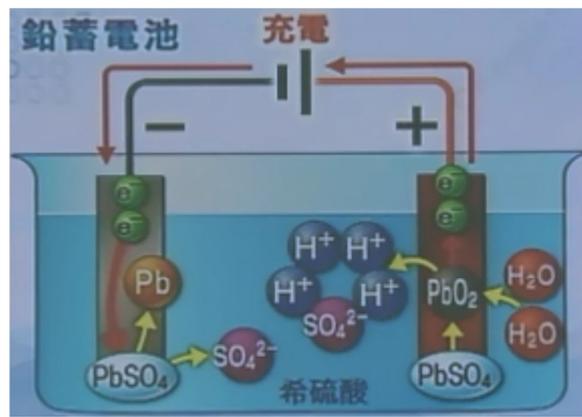
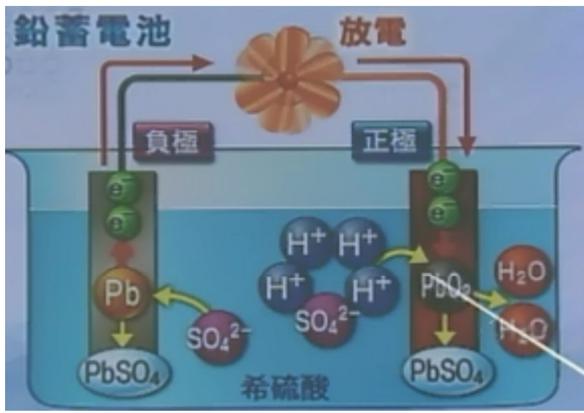
正極 還元





充放電できる電池

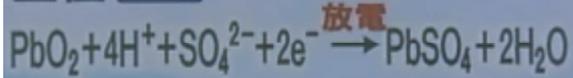




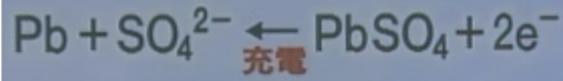
負極 酸化



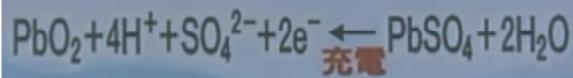
正極 還元



還元



酸化



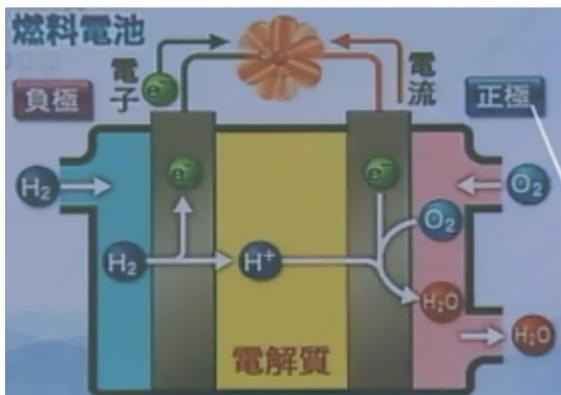
一次電池

例：マンガン乾電池

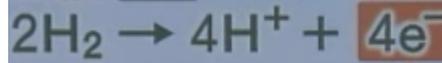
二次電池

例：鉛蓄電池

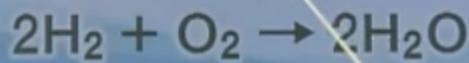
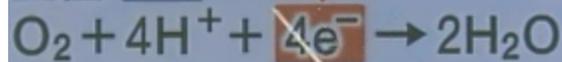
燃料電池



負極 酸化



正極 還元





水素ステーション