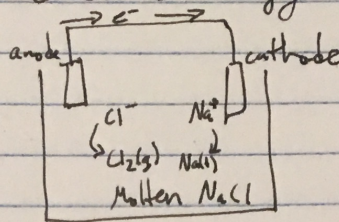
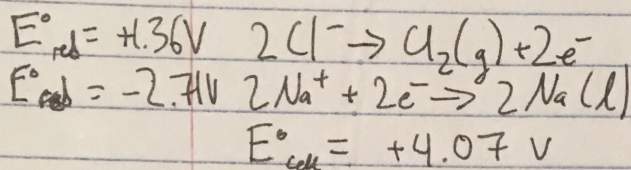


Electrolysis

Electrolysis - the use of electric energy to drive a nonspontaneous redox rxn



red @ anode
oxid @ cathode
 e^- flow in same direction

Electrolysis Calculations

$$Q = It = nF$$

Q = charge (C)

I = current (A)

t = time (s)

n = moles e^- transferred thru wire in a given time

F = Faraday's constant (C/mol)

NOTE: n different than for Nernst equation!

Electrical Energy Units

Current:

Charge/time

1 ampere (A) = 1 coulomb/second

1 coulomb = 1 ampere · second

Work:

1 joule = coulomb · volt = (ampere · second)(volt)

Power:

Energy capacity

1 watt = 1 joule/second