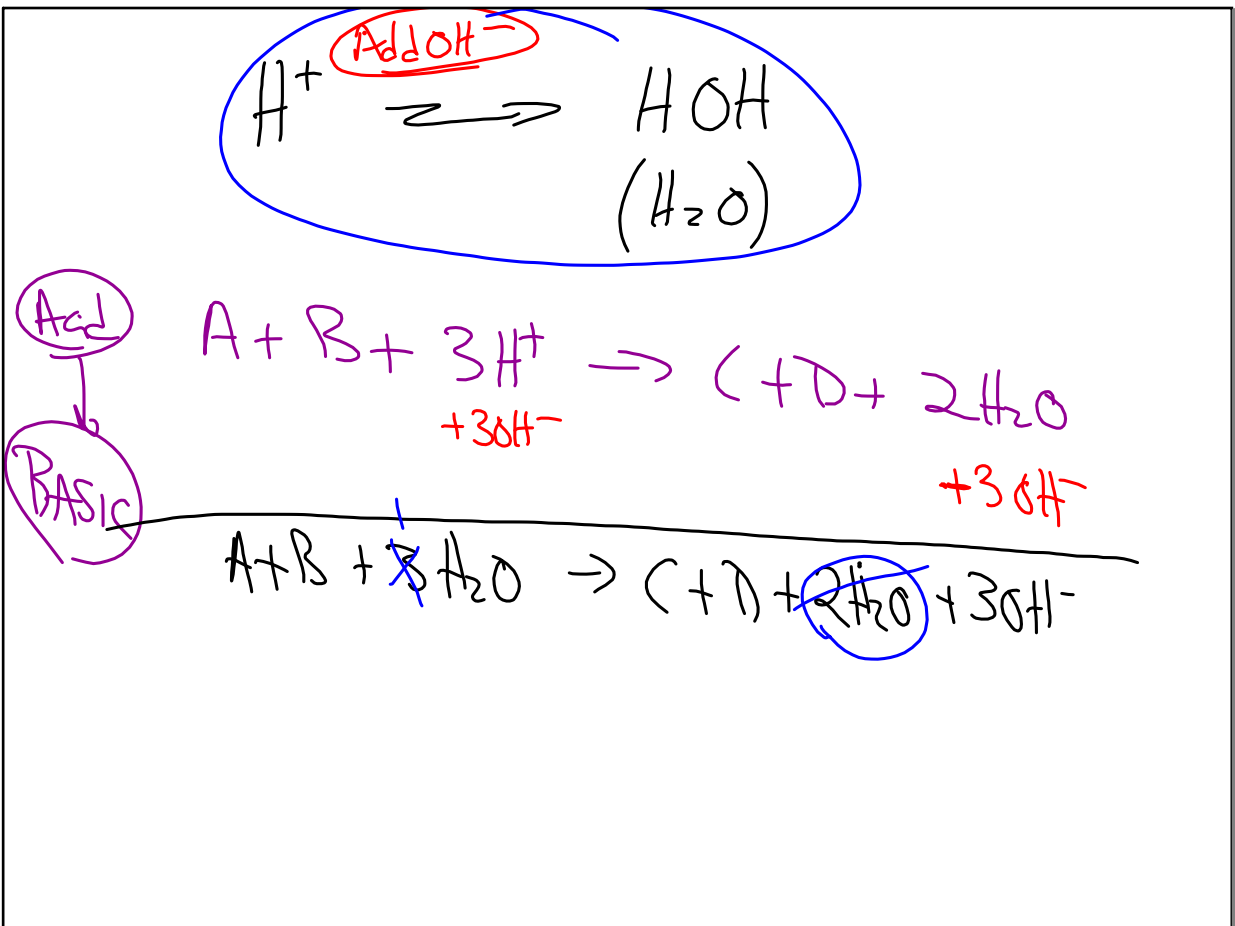
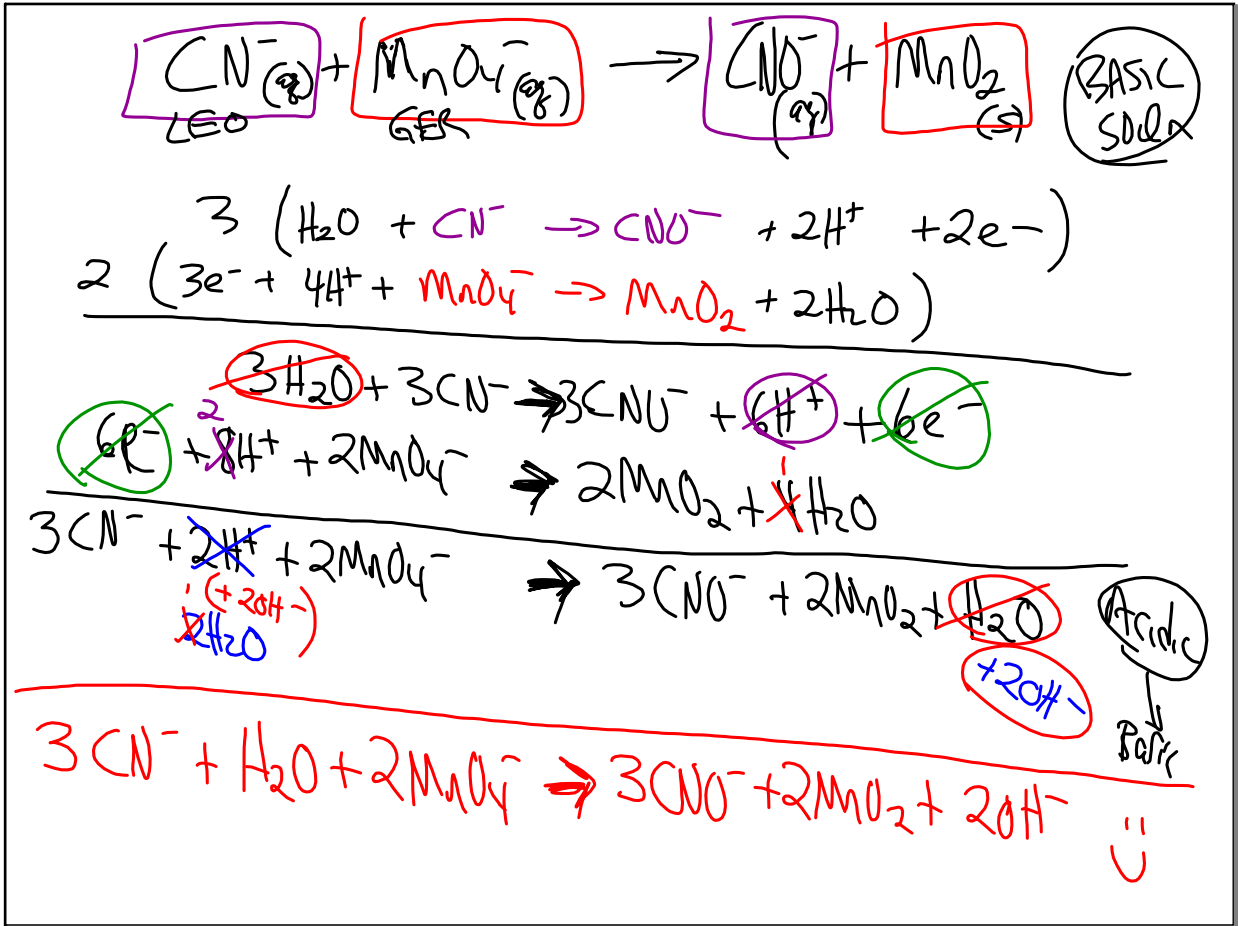


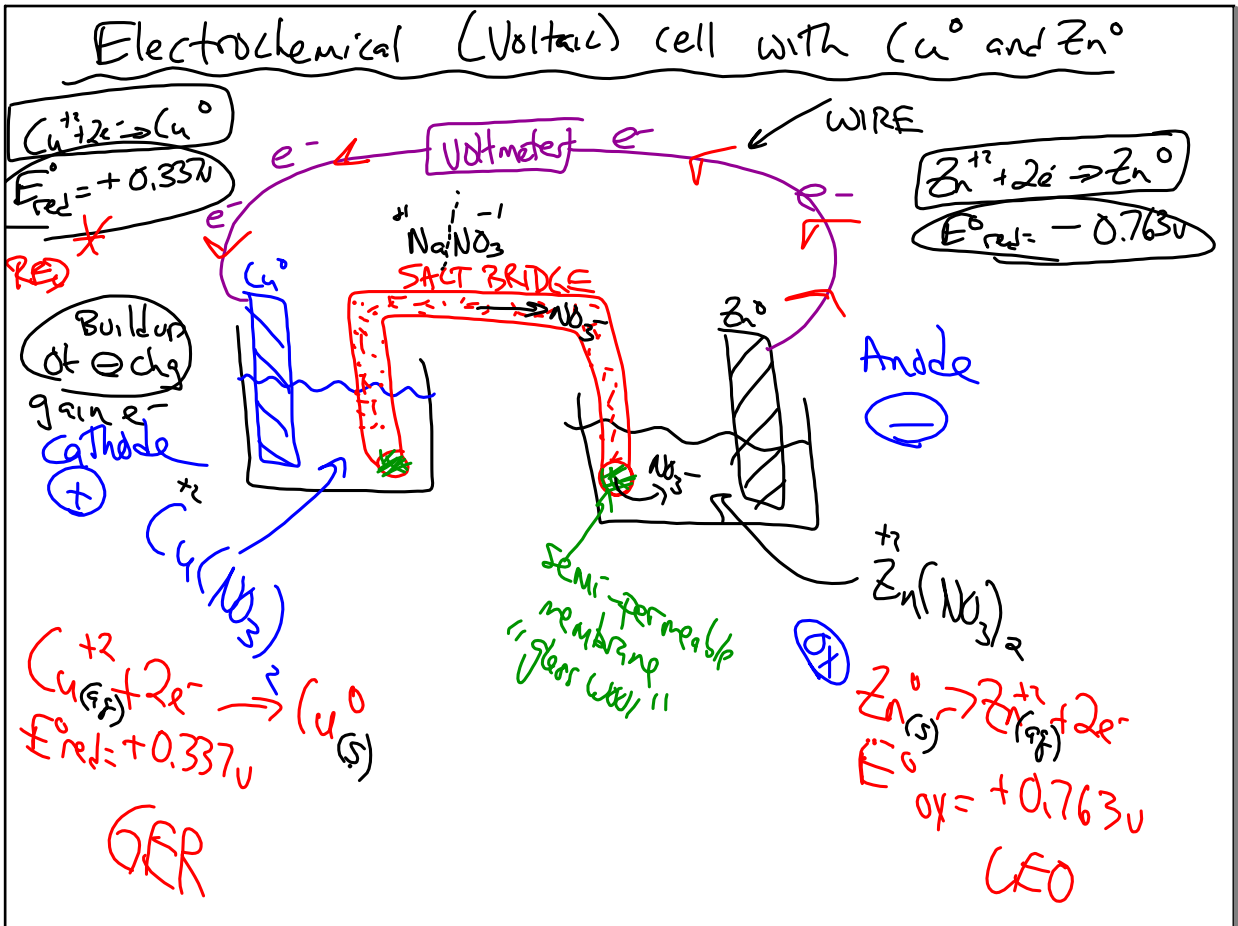
Apr 6-7:40 AM



Apr 6-8:02 AM



Apr 6-8:05 AM



Apr 6-8:44 AM

$$\text{GER cathode gain mass } \text{Cu}^{+2}(\text{aq}) + (2e^-) \rightarrow \text{Cu}^0(\text{s}) \quad E_{\text{red}}^{\circ} = +0.337 \text{ V}$$

$$\text{LEO } \text{Zn}^0(\text{s}) \rightarrow \text{Zn}^{+2}(\text{aq}) + (2e^-) \quad E_{\text{ox}}^{\circ} = +0.763 \text{ V}$$

$$\text{Cu}^{+2}(\text{aq}) + \text{Zn}^0(\text{s}) \rightarrow \text{Cu}^0(\text{s}) + \text{Zn}^{+2}(\text{aq}) \quad E^{\circ} = +1.10 \text{ volts}$$

FAT RED CAT  
 RED at cathode

AN OX  
 ANODE

n=2  
 gain mass  
 mass Zn(s) ↓ into Zn<sup>+2</sup>

oxidation at ANODE

Apr 6-9:00 AM

Spontaneous chemical rxn → electricity  
 ⊕ E°

We know need ⊖ ΔG

$$\Delta G^{\circ} = -nFE^{\circ}$$

#e- you have  
 one e- gained = e- lost  
 L.C.F.

E° rxn  
 (Add E<sub>ox</sub> + E<sub>red</sub>)

Faraday Constant  
 96,500 J / Mole e-  
 96.5 kJ / mole e-

$$\Delta G^{\circ} = -nFE^{\circ}$$

$$\Delta G^{\circ} = -(2)(96.5)(+1.10)$$

$$\Delta G^{\circ} = -212 \text{ kJ/Mole}$$

Apr 6-9:08 AM

CHAP20 ← Basic soln.  
# 22e, 26, 34  
p1117

Apr 6-9:15 AM