

(17)  $\Delta G = \Delta H - T\Delta S$

~~Spont~~  $\overset{\text{Want}}{\text{---}} = \ominus - (\overset{\text{Kdoin}}{\oplus} \ominus)$  3 mole (3)  $\rightarrow$  1 mole (5)

$\overset{\text{Want}}{\ominus} = \ominus - (\ominus)$

$\overset{\text{Want}}{\oplus} = \oplus + \oplus$

$\ominus \oplus$  < 90

Smgll.

Mar 24-7:43 AM

(19)  $\Delta G^\circ = -RT \ln K$

$26 = (-8.314 \times 10^{-3})(298) \ln K$

$K = 2.75 \times 10^{-5}$

$\text{Ag}(\text{SO}_3)_3^{-3} \rightleftharpoons \text{Ag}^+ + 2\text{SO}_3^{-3}$

$K = \frac{[\text{Ag}^+][\text{SO}_3^{-3}]^2}{[\text{Ag}(\text{SO}_3)_3]}$

$\Delta G = [\text{Ag}^+ + 2\text{SO}_3^{-3}] - [\text{Ag}(\text{SO}_3)_3]$

$= [77 + 2(-497)] - (-943)$

$= 26 \text{ kJ}$

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$\Delta G^\circ = -RT \ln K$

$\Delta G^\circ = \Delta H^\circ - T \Delta S^\circ$

$\Delta G = (-181.41) - [473(-0.216)]$

$\Delta G = -79.24 \text{ kJ}$

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$\text{PbCO}_3(\text{s}) \rightleftharpoons \text{PbO}(\text{s}) + \text{CO}_2(\text{g})$

Using appendix C - P 1112 Calc  $P_{\text{CO}_2}$  @  $400^\circ\text{C}$

$\Delta G^\circ = -RT \ln K$

$K = (P_{\text{CO}_2})$

$\Delta H^\circ = -393.5 + 217.3 - (-699.1)$

$\Delta H^\circ = 88.3 \text{ kJ}$

$\Delta S^\circ = (213.6 + 68.7) - (131)$

$\Delta S^\circ = 151.3 \text{ J}$

$\Delta S^\circ = 0.1513 \text{ kJ}$

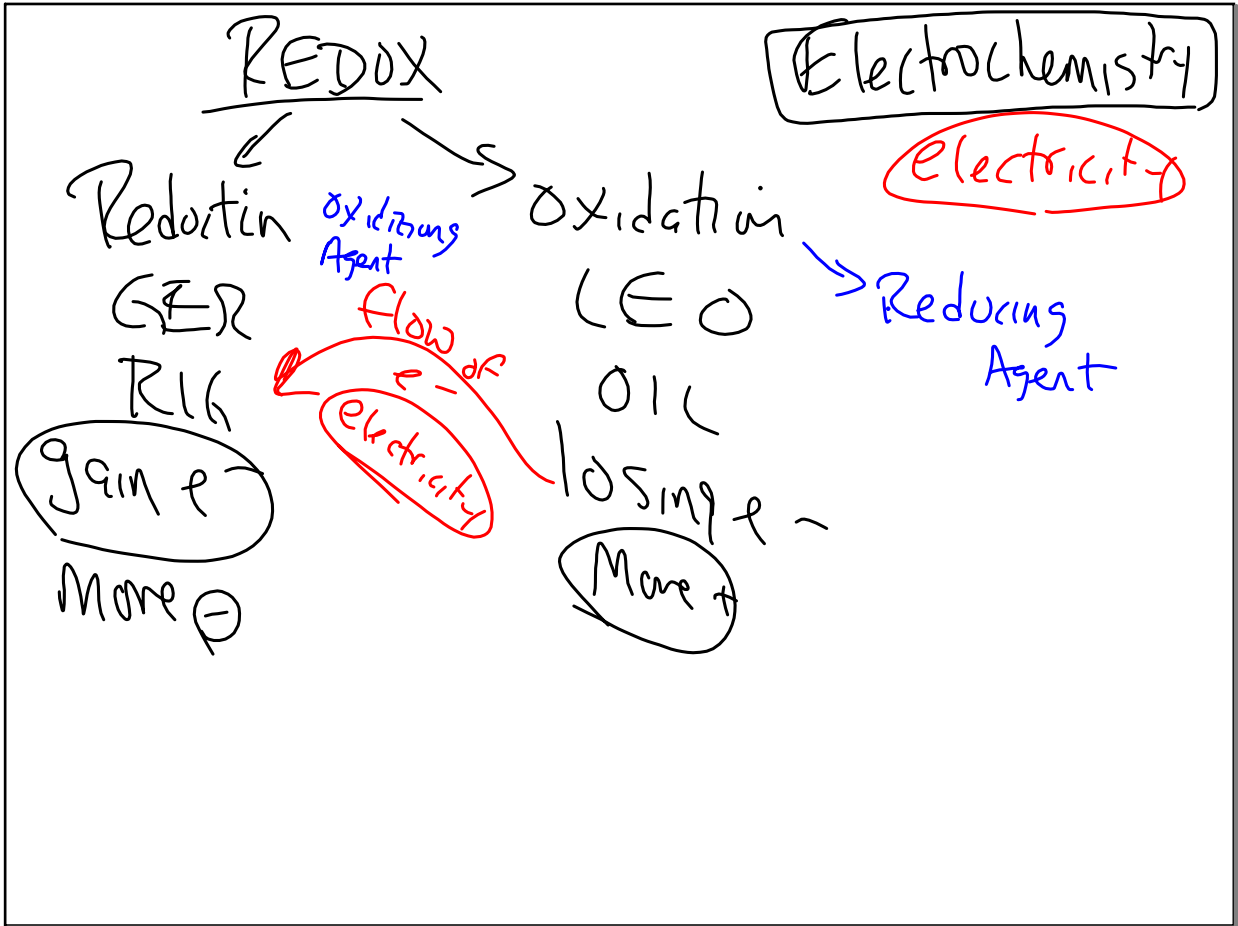
$\Delta G^\circ = \Delta H^\circ - T \Delta S^\circ$

$\Delta G^\circ = (88.3) - [(673) / (0.1513)]$

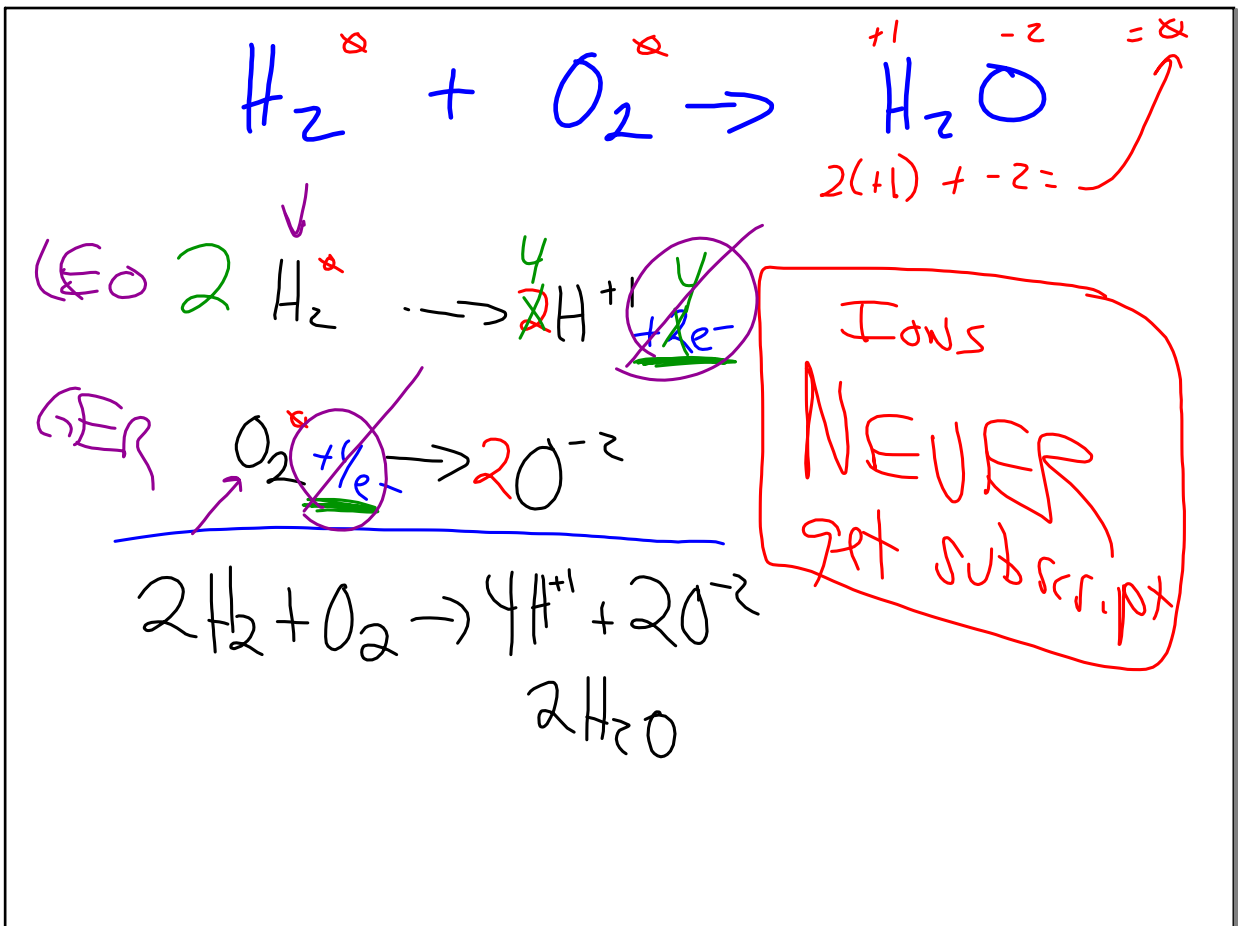
$\Delta G^\circ = -13.5 \text{ kJ}$

$\Delta G = \Delta G^\circ + RT \ln Q$

Mar 24-8:38 AM



Mar 24-9:05 AM



Mar 24-9:11 AM

$$20 / 12 + 16$$

Mar 24-9:17 AM