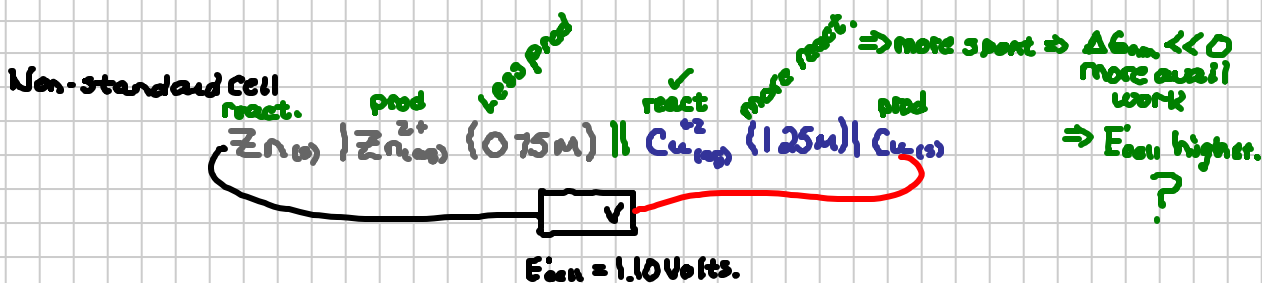


Lecture 22.2 Non-Standard Cell Potentials (Nernst Equation)

Note Title

11/15/2011

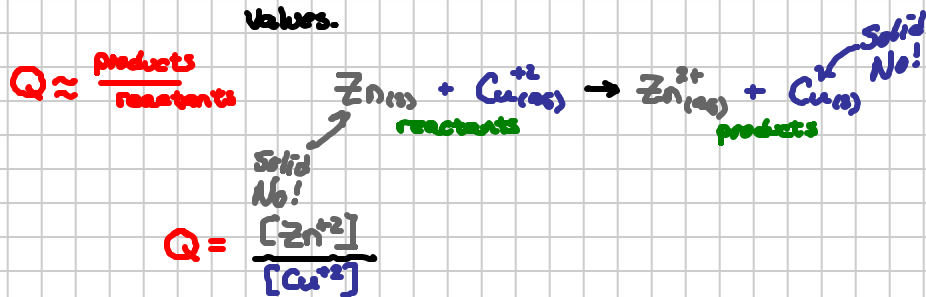


Nernst Equation

$$E_{\text{cell non-std}} = E_{\text{cell}}^{\circ} - \frac{0.0592}{n} \log Q$$

Std reduction values.

run quotient
↑ n = moles e⁻



$$E_{\text{cell}} = E_{\text{cell}}^{\circ} - \frac{0.0592}{n} \log \frac{[\text{Zn}^{2+}]}{[\text{Cu}^{2+}]}$$

$$E_{\text{cell}} = \overset{\text{Table!}}{1.10\text{V}} - \frac{0.0592}{2} \log \frac{0.750\text{M}}{1.250\text{M}}$$

$$E_{\text{cell non-std}} = 1.11\text{V} > 1.10\text{V } E_{\text{cell}}^{\circ} \dots \text{High } E_{\text{cell}} \dots \text{more work.}$$