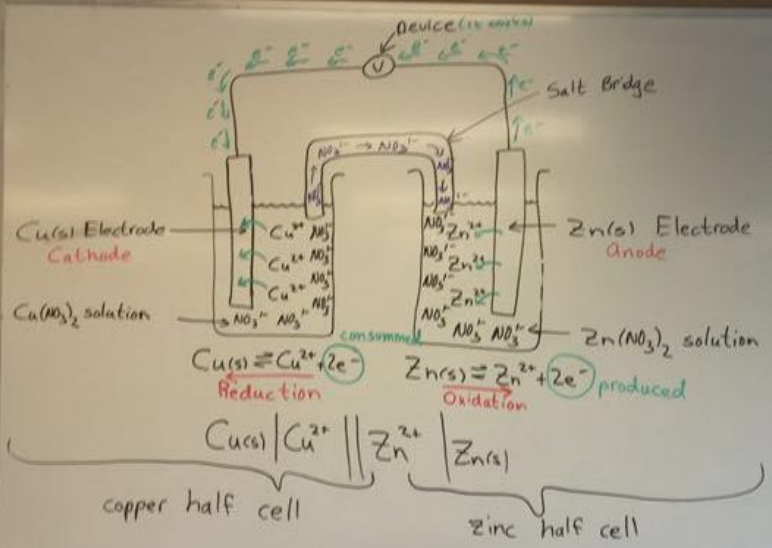


half cells
half reactions
cells



$$\begin{array}{l} \text{Zn(s)} \rightleftharpoons \text{Zn}^{2+} + 2\text{e}^- \quad +0.76\text{V} \\ \text{Cu}^{2+} + 2\text{e}^- \rightleftharpoons \text{Cu(s)} \quad +0.15\text{V} \\ \hline \text{Cu}^{2+} + \text{Zn(s)} \rightleftharpoons \text{Zn}^{2+} + \text{Cu(s)} \quad +0.91\text{V} \end{array}$$

- as this cells "runs"
- the Cu electrode grows (gets heavier)
- the Zn electrode shrinks (gets lighter)
- NO_3^- ions must flow through the "salt bridge" to prevent charge build up in each solution (completes the circuit)