

# Homework Assignment #2

- Calculate the potential needed to plate out 99.99% of the  $\text{Cu}^{2+}$  in an approximately 0.2 M solution at pH 2.00 assuming a 0.2 partial pressure of  $\text{O}_2$  (20%  $\text{O}_2$  at 1 atm)
- Repeat the calculation for  $\text{Pb}^{2+}$  ( $E^\circ = -0.126\text{V}$ )
- Repeat the calculation for  $\text{Cd}^{2+}$  ( $E^\circ = -0.402\text{V}$ )
- Repeat the calculation for  $\text{Zn}^{2+}$  ( $E^\circ = -0.762\text{V}$ )
- At what potential will all 3 metal ions plate out?
- Explain the difference between this & HW#1