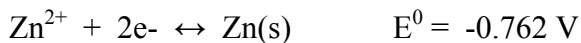
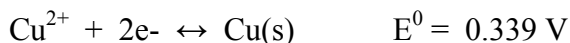
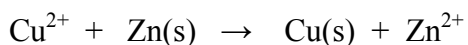


Quiz 6
CHEM 311 Fall 2004

A 50.00 ml aliquot of a 0.010 M solution of $\text{Cu}(\text{NO}_3)_2$ is added to 100.00 ml of a 0.10 M $\text{Zn}(\text{NO}_3)_2$ solution. Small pieces of zinc metal and copper metal are added and continuously stirred. Does a reaction occur? If so, what are the products of the reaction and why? What would you expect to observe as the reaction proceeded?



Cu^{2+} is a much stronger reductant than Zn^{2+} . Therefore the following reaction has a very large equilibrium constant.



The reaction essentially goes until all of the Cu^{2+} has reacted.

The products are $\text{Cu}(\text{s})$ and Zn^{2+} . The reaction occurs on the surface of the pieces of zinc. A coating of copper forms on the surface of the zinc.