

* VII-1 ____C ____NC

Chemistry 152
Worksheet 8

Name: _____

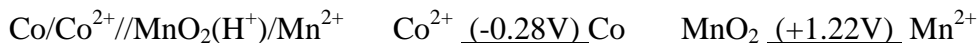
A. A voltaic cell is constructed in the usual manner having Cu metal in contact with a 1.0M Cu(NO₃)₂ solution and Ni metal in contact with a 1.0M Ni(NO₃)₂ solution at 25°C.

* 1. (2.0 pts.) Write the equation for the spontaneous cell reaction and determine the voltage associated with this cell.

2. (1.0 pts.) Write the shorthand notation used to represent this cell.

3. Draw a diagram representing this cell. Be sure to indicate the salt bridge; the anode; the cathode; and the direction of anion, cation, and electron movement.

B. (2.0 pts.) For the following standard cell give the spontaneous cell reaction and the voltage associated with the cell.



C. (2.0 pts.) Determine the voltage associated with the following half-reaction at 25°C if [Co²⁺]=1.5x10⁻²M and [Co³⁺]=8.9x10⁻³M.



D. (1.0 pts.) List the following oxidizing agents in order of increasing strength under standard state conditions.

