

# Participation Assignment

## CHEM 1100-General Chemistry II

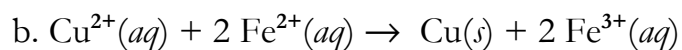
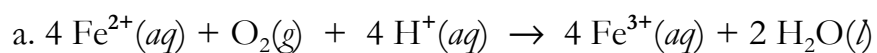
Name:

#18

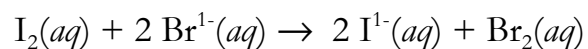
Section: 31, TR

Due Date: Tuesday 3/12/2019

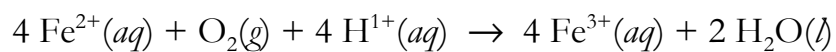
1. Calculate  $E^\circ_{\text{cell}}$  for each of the following reactions and state whether each is spontaneous or nonspontaneous:



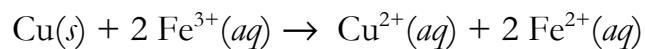
2. At 25 °C, calculate  $\Delta G^\circ$  in kilojoules for the following reaction:



3. At 25 °C and standard conditions, calculate K for the following reaction:



4. At 25 °C, calculate  $E_{\text{cell}}$  for the following reaction:



using the following concentrations:

$$[\text{Fe}^{3+}] = 1.0 \times 10^{-4} \text{ mol/L} \quad [\text{Cu}^{2+}] = 0.25 \text{ mol/L} \quad [\text{Fe}^{2+}] = 0.20 \text{ mol/L}$$