

# Participation Assignment

## CHEM 1100-General Chemistry II

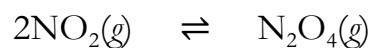
Name:

#9

Section: 31, TR

Due Date: Thursday 2/7/2019

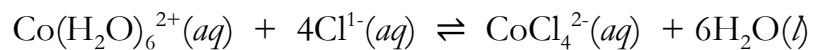
1. A mixture of 0.0500 M  $\text{NO}_2$  and 0.0500 M  $\text{N}_2\text{O}_4$  is allowed to come to equilibrium. Calculate the equilibrium concentrations of all the chemical species.  $K_c$  is 216 at 25 °C.



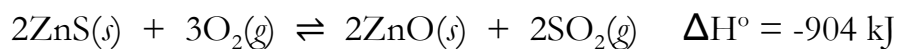
2. Le Châtelier's principle:

Stress:

Change the temperature



3. Assume the reaction between zinc sulfide, ZnS, and oxygen is at equilibrium and predict what will happen to the concentration of SO<sub>2</sub> in each of the following cases:



a. Add more O<sub>2</sub>

e. The temperature is raised

b. Remove some O<sub>2</sub>

f. The temperature is lowered

c. Container volume is decreased

g. Some ZnS is removed.

d. Overall pressure is decreased