Name
Date **Period**

Grade:

EXPERIMENT 36
LE CHATELIER'S PRINCIPLE AND EQUILIBRIUM

Pre Lab Question: None

Name **Date**
Period **Lab Partners**

EXPERIMENT 36
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Record all observations in the data table first. Then determine which ion causes the stress and record how this ion changes in concentration (either increasing or decreasing). Finally, determine the direction of the shift and the effect on the concentration of all other ions.

DATA TABLE:

Stress (ion added or removed)		**Observations**	**Changes in Concentration (increase, decrease, no change**			
Part A		**clear**	**$NaCl(s) \leftrightarrow Na^+(aq) + Cl^-(aq)$**			
Step 2	HCL					
Part B Step 1		**blue green**	**Yellow $HBB(aq) + H_2O(1) \leftrightarrow H_3O^+(aq) +$ Blue $BB^-(aq)$**			
Step 2						
Step 3						
Step 4						
Part C Step 1			**pale brown $Fe^{3+}(aq) + SCN^-(aq) \leftrightarrow$ Red $FeSCN^{3+}(aq)$**			
B1						
B3						
B5						

Conclusion Questions:

1. Write the equilibrium constant expression for each of the parts:

Part A - K_{sp} =

Part B - K_a =

Part C - K_{eq} =

2. Explain how the equilibrium would be affected if solid NaCl were added to the saturated stock solution.

3. What is the most common chemical method for removing H_3O^+ ions in aqueous solutions.

Write a net ionic equation.

4. Explain how the concentration in Part C would be affected by the addition of distilled water.

Discussion

Conclusion