

Name: _____

Chem, Period: _____

Lab Partner: _____

Experiment Date: _____

Chemical Equilibrium and Le Chatelier's Principle

1) Saturated Sodium Chloride Solution

Equilibrium System: _____

Observations upon addition of HCl:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

2) Acidified Chromate Solution

Equilibrium System: _____

Observations upon addition of HNO₃:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

Observations upon addition of NaOH:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

3) Aqueous Ammonia Solution

Equilibrium System: _____

Observations upon addition of NH_4Cl :

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

4) Cobalt(II) Chloride Solution

Equilibrium System: _____

Observations upon addition of HCl :

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

Observations upon heating:

In which direction did heating cause the equilibrium system to shift? Left or Right

Based on these results, is this reaction (as written) exothermic or endothermic: _____

Explain:

5) Iron(III) Thiocyanate Solution

Equilibrium System: _____

Observations upon addition of FeCl_3 :

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

Observations upon addition of KSCN:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

Observations upon addition of AgNO_3 :

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

6) BTB in Acid / Base

Equilibrium System: _____

Observations upon addition of HCl:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

Observations upon addition of NaOH:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

Observations upon addition of NaCl:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.

Observations upon addition of NaCl to Test Tube 2 and 3:

In which direction did this stress cause the equilibrium system to shift? Left or Right

Which ion caused the shift? _____

Explain.