

Le Chatelier's Principle DEMO Lab**NAME:**

The purpose of this experiment is to observe changes in an equilibrium system and predict the direction of spontaneous change produced by a change in the system using Le Chatelier's Principle.

**PINK****BLUE**

Experiment	Prediction	Observation	Explanation
Addition of 12M HCl (dropper bottle)			
Addition of AgNO ₃ (dropper bottle)			
Increase the temperature (hot water bath)			
Decrease the temperature (ice water bath)			
Addition of water (wash bottle)			

Teachers Notes:

1. Dissolve approximately 1 g of cobalt chloride in 100ml of ethanol in a beaker.
2. Add water drop wise (if needed) until a purple solution is formed.
3. Divide this mixture among five large test tubes.
4. Allow students to make predictions of the equilibrium shifts that should occur with each change. Then, perform the experiments and have students record and explain their observations.
5. You may wish to produce a “blue” solution (1 spatula of cobalt chloride in a half test tube of ethanol with a few drops of conc. HCl as needed to deepen the blue color) and a “pink” solution (1 spatula of cobalt chloride in a half test tube of water) for reference.