

# Paper Chromatography

## (using a learning cycle approach)



**Welcome:** This is the second of a four-lab experiment sequence, covering four important aspects of chemistry, and utilizing a learning cycle.

- Lab 1 Making Experimental Observations: chemical reactions and properties
- Lab 2 Paper Chromatography: chemical interactions and separation techniques
- Lab 3 Conservation of Mass
- Lab 4 Limiting Reagents

**Learning cycle:** to help you better understand the chemical concepts in each lab experiment, we will employ a three-step learning cycle.

**Step 1:** We will ask you and a partner to go into the lab, follow a procedure, and make observations.

**Step 2:** You will then be asked to review material that provides an explanation about what you observed in lab.

**Step 3:** Before going back into the lab, you will be asked to apply your understanding by designing experiments. You and your partner will then go back into the lab to conduct your experiments and gather experimental results. Designing and carrying out your own experiments can be a very challenging part of the lab and requires very careful thought.

**Paper Chromatography:** to help you better understand the chemical concepts in each lab experiment, we have incorporated descriptive information about paper chromatography into today's lab activity.

### Learning Goals:

- a) To understand the chemical names and symbols for some common metal ions.
- b) To use the laboratory technique of paper chromatography to separate and identify metal ions in an aqueous (water) solution.
- c) To learn about paper chromatography
- d) To design an experiment to determine the metal ions present in an unknown solution.

# Report On Paper Chromatography

**Xiang Xie**



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