corresponding concentration can be found on the horizontal axis. The concentration of the unknown can also be found using the slope of the Beer's law curve.

OBJECTIVES

In this experiment, you will

- Observe flame tests on a variety of cation solutions and record observations
- Utilize you observations from standard flame test experiments to identify the ion present in an unknown.
- Simulate and test the absorbance of five standard copper (II) sulfate solutions.
- Prepare a Beer's law calibration curve from the test results of the standard solutions.
- Test the absorbance of a copper (II) sulfate solution of unknown molar concentration.
- Calculate the molar concentration of the unknown $CuSO_4$ solution.

PROCEDURES

Part I: Flame Test

Navigate to this online flame test lab link.

1. Write your observations down into the data table, Table 1, provided.
2. Write your observations down for the two unknown salts and provide the identity of the salt.

Table 1.

Salt solution	Observation /color
K	
Cu	
Sr	
Na	
Ba	
Ca	
Li	

Unknown 1 Observation: _____

Unknown 1 Cation Identity: _____

Unknown 2 Observation: _____

Unknown 2 Cation Identity: _____