Name: _____ Section: _____

**Procedure**

1. Set up the apparatus as indicated in the picture.

2. Clean the solid Cu strip with steel wool; wash BOTH Cu strips with dilute NaOH, followed by dilute $HNO_3$, and finally rinse with DI $H_2O$. At this point, make certain to handle both Cu strips with forceps.

3. Rinse strips with acetone and when dry, weigh and record the mass of the Cu strips.

4. Place the strips in a 250 mL beaker containing about 200 mL of 1M $CuSO_4$. DO NOT ALLOW THE STRIPS TO TOUCH.

5. Adjust the current to approximately 0.175 Amp (175 mA) and run the system for 30 minutes. If you cannot maintain a constant amp reading, take readings at 5 minute intervals and average the current.

6. Carefully rinse both Cu strips under a slow stream of DI water, then rinse with acetone, and allow to dry. Weigh and record the mass of each dry Cu strip.

**Data and Calculations**

1. Current _____ amps

2. Time _____ seconds

3. Initial Mass of Copper A (solid) _____

4. Final Mass of Copper A (solid) _____

5. Change in mass of Copper A (solid) _____

6. Initial Mass of Copper B (screen) _____

7. Final Mass of Copper B (screen) _____

8. Change in mass of Copper B (screen) _____

9. Average change in mass of the Copper Strips _____

Name: _____ Section: _____

**Post-lab Questions**

1. Was the change in mass by the screen the same as the solid mass? Briefly explain your results.

2. Calculate the value of Avogadro's number starting with the amount of current you used. SHOW ALL YOUR WORK.

3. Calculate the percent error in your experimental value of Avogadro's number.