**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Partners: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Electrolysis of Aqueous Copper (II) Chloride**

**Purpose:**

* to determine what forms at the 2 electrodes when electrical energy is passed through aqueous copper (II) chloride

**Materials:**

* aqueous copper (II) chloride
* beaker or U tube
* 2 graphite electrodes
* 2 leads
* power supply

**Method:** Sketch and label the set up with cathode (negative electrode) on left--bigger is always better in chemistry!

**Observations:**

|  |  |
| --- | --- |
| **Cathode (left electrode--negative)** | **Anode (right electrode--positive)** |
|  |  |

**Analysis:**

**On the sketch:**

Label each electrode with the product observed.

Label the negative and positive electrodes.

Sketch the particles that are in the water on the sketch.

Write the BCE for the overall chemical reaction that took place.

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What type of chemical reaction took place?

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What were the signs that a chemical reaction had taken place?

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Is this is an endothermic or exothermic reaction ? Explain.

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**Conclusion:**

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