

**Phys Sc 416**  
**Oxidation of Copper**

**Purpose:** To see what kind of change occurs when copper is heated.

**Procedure:**

1. Examine the copper powder and note its physical properties.

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2. Weigh the empty cup (crucible) to one decimal place. Record your mass in the table below.
3. Add around 3 g of copper powder, and record the weight of the copper + crucible in the table below.
4. Subtract to find the exact mass of Cu used and record it in the table below.

<b>Object</b>	<b>Mass before heating (g)</b>
Crucible	
Crucible and copper	
Copper	

5. Light the bunsen burner.
6. *While stirring continuously*, heat the crucible. You will see two or three colour changes. Keep heating and stirring until no further changes occur. Be patient.
7. What was the last colour you observed? Did you heat the crucible for 5 minutes after seeing this colour?

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8. Find the mass of the crucible plus the new powder, and enter it below.

<b>Object</b>	<b>Mass after heating (g)</b>
Crucible	Same as before(recopy)
Crucible and powder	
Powder alone	

9. Based on what you observed, do you think a chemical change occurred?

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10. The most black powder that could possibly be formed = (mass of Copper used )X 1.25.

Calculate this amount=\_\_\_\_\_

11. Divide your mass of powder by the answer in no. 10.

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12. Now multiply by 100. This is your % yield.

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