

Experiment No.(6) Barfoed's test:

- Barfoed's test is used for detecting the presence of monosaccharide.
- Barfoed's test is based on the reduction of copper (II) acetate to copper (I) oxide (Cu_2O), which forms a brick-red precipitate.

Material:

1. Carbohydrate solution (1-2%).
2. Barfoed's reagent: prepared from dissolving 24 g of copper(II) acetate $\text{Cu}(\text{CH}_3\text{COO})_2$ in 450 mL of heated distilled water then added to the mixture 25 mL of 8.5% acetic acid CH_3COOH . Then finally the solution is filtered.

Method:

1. Take two test tubes in both added 3 mL of Barfoed's reagent.
2. To the first test tube add 1 mL of glucose solution. To the second test tube add 1 mL of reducing sugar.
3. Mix the content of the two test tubes well then put them in water bath.
4. Notice that a precipitate will form in the first test tube after 1-2 minutes after heating started. While in the second test tube a precipitate will form after 2-4 minutes after heating started.

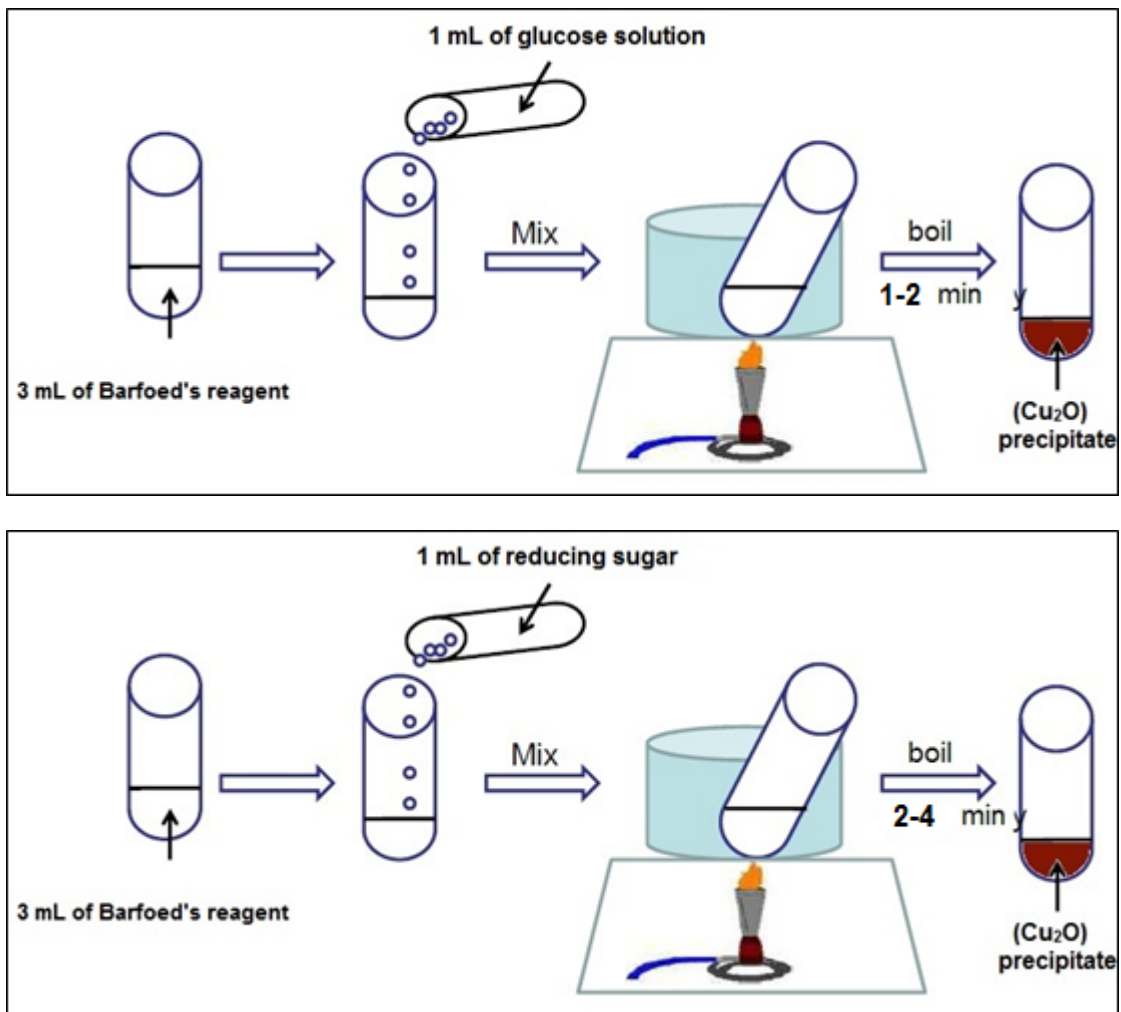


Figure 6. Procedure to Barfoed's Test