

DEMONSTRATION 10.6

DEHYDRATION OF SUCROSE

Sulfuric acid is added to a beaker containing sugar. After a short period, a reaction occurs in which a black foam is produced.

This demonstration should be performed in a fume hood.

EQUIPMENT

- 200 mL beaker

REAGENTS



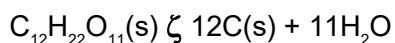
- sucrose, $C_{12}H_{22}O_{11}$
- sulfuric acid, H_2SO_4 (18 M, 5-10 mL)

PROCEDURE

- Fill about one-third of the beaker with sugar (sucrose).
- Add the sulfuric acid carefully and do NOT stir.
- Stand at a safe distance.

RESULTS

After a short time a violent reaction will occur, in which a “carbon snake” is produced. Care must be taken as sulfur dioxide is in the fumes. Also, handle the snake with gloves as it still contains sulfuric acid.



The sulfuric acid is acting as a dehydrating agent.

High Risk Demonstration:

- Refer to HIRAC
- Set up in Red Tray