The Dehydration of Sugar

(Rarely done)

Purpose:

The dehydration of sugar, which is an exothermic reaction.

Required Materials:

30 grams of commercial sugar 1 – 600 mL Beaker 1 – Fume Hood

1 – Metal Pan 40 mL of conc. Sulfuric Acid Sand

Procedure:

Place 30 grams of commercial sugar in 600 mL beaker, and place the beaker in a metal pan filled with sand. Placed the beaker with sugar and metal pan filled with sand in the fume hood. Turn the fume hood blower on and place 40 mL of Sulfuric Acid in the beaker with the sugar and let the reaction take place.

Reaction:

$$H_2SO_4 + C_{12}H_{22}O_{11} = 12C + 11H_2O + mixture of acid and water$$

Waste:

Let the waste return to room temperature in the fume hood and then place it in a solid container to be placed in the waste laboratory to be shipped out.

