

# SUCRASE ACTION ON SUCROSE

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**Materials:** 2 test tubes/holder funnel  
water filter paper  
package of dry yeast Benedict's Solution  
2 - 250 ml beakers hot plate  
sucrose (table sugar)

**Purpose:** To indirectly observe the action of the enzyme sucrase on sucrose.

**To the Student:** Sucrose is a disaccharide. That means it is made up of two simple sugars, glucose and fructose. Sucrase acts on sucrose to facilitate its breakdown into glucose and fructose. Yeast cells make sucrase. Benedict's Solution is an indicator which changes color in the presence of glucose.

1. Let a few grains or a small piece of yeast stand in a cup of water for about twenty minutes.
2. Filter it, saving the filtrate which has the enzyme sucrase.
3. Fill two test tubes 1/4 full of sugar solution.
4. Into the first test tube place about ten drops of Benedict's Solution.

What color is Benedict's Solution? What color is it after you put it in the sucrose solution?