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Name

Introduction to Carbohydrates

Results and Discussion

Data Table

Sample	Iodine Test		Benedict's Test		Barfoed's Test		Seliwanoff Test		Identity
	Color	+/-	Color	+/-	Color	+/-	Color	+/-	Tachtery
Blank									Distilled water
Α									
В									
С									
D									
Е									

Post-Lab Questions

- 1. Maltose, a product of partial digestion of starches, is a disaccharide composed of two glucose units. It is a reducing sugar. In your mind, take maltose through the sequence of classification tests used in this experiment. Would you be able to distinguish maltose from lactose in an unknown sample?
- 2. When disaccharides are heated in water in the presence of a strong acid, the linkage joining the two monosaccharide components is "broken" (a reaction called hydrolysis). Using this information, explain why sucrose might give a false positive result with the Seliwanoff reagent.
- 3. Prior to the advent of more accurate test-strip methods to analyze the amount of glucose in urine (a test for diabetes), the presence of glucose in urine was routinely detected using Clinitest[™] tablets. These tablets contain all of the solid reagents needed for Benedict's Test. Do you think this is a good method of testing for glucose?
- 4. In the Background Section, it was stated that fructose is used as a "lower calorie and lower cost sweetener than table sugar." Explain how and why this statement might be true.

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