

Lab report

[Environment](#), [Water](#)



Lab Report Procedure 6. 1: Perform Benedict's test for reducing sugars.

Introduction: Benedict's tests allows for the detection of the presence of reducing sugars. All monosaccharides are reducing sugars since all of them have active carbonyl group. Some disaccharides that are exposed to a carbonyl group are also reducing sugars but less reactive than monosaccharides. By mixing the sugar solution with Benedict's solution and heating them, a redox reaction will occur. The copper (II) sulphate present in Benedict's solution reacts with electrons from aldehyde or ketose group of reducing sugars to form cuprous oxide, a red brown precipitate. Materials:

The materials used in order to detect starches was: test tubes, distilled water, Benedict's solution, starch were used. Negative Control: H₂O Positive Control: Starch Obtain nine test tubes and number them 1-9 Add to each tube the materials to be tested. Add 2ml of Benedict's solution to each tube. Place all the tubes in boiling water- bath for 3 minutes and observe color changes during this time. After 3 minutes , remove the tubes from the water-bath and give the tubes ample time to cool to room temperature. Record the color of their contents. Procedure 6. 2: Perform the iodine test for starch

Tube	Solution	Benedict's Color	Reaction	Iodine Color	Reaction
1	10 drops onion juice	No change	Blue-> Black w/white	No change	2
2	10 drops potato juice	Precipitation	Yellow-> blue	3	10 drops sucrose solution
3	No change	No change	6	10 drops reducing sugar solution	
4	Blue	No change	7	10 drops starch solution	
5	No change	Yellow-> Blue	8	Unknown	
6	Blue-> Red Brown	9	Unknown	2	
7	Blue	Brown	4	10 drops glucose solution	
8	Blue-> Brown	No change	1	2 ml egg albumen	
9	Green/yellow	2	2 ml honey	No change	
3	2ml amino acid solution				

Purple 4 2ml distilled water No change 5 2ml protein solution Purple 6
Unknown Colorless 7 Unknown 2 Colorless