

الصيدلة	الكلية
فرع العلوم المختبرية والسريرية	القسم
Biochemistry	المادة باللغة الانجليزية
الكيمياء الحياتية	المادة باللغة العربية
الثالثة	المرحلة الدراسية
م م اسامة حامد عبدالله	اسم التدريسي
Molich's test	عنوان المحاضرة باللغة الانجليزية
كشف مولش	عنوان المحاضرة باللغة العربية
2	رقم المحاضرة
1. Abousalah, K. and Alnaser, A., 1996, Principles of Practical Biochemistry. 2. Farid Shokry Ataya, 2007, Practical Biochemistry. AlRoshd Publisher, Riyadh, Saudi Arabia. 3. Milio, F. R. and Loffredo, W. M., 1995, Qualitative Testing for Amino Acids and Proteins, Modular Laboratory Program in	المصادر والمراجع

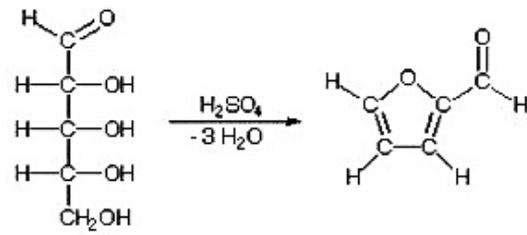


➤ Molisch Test

- This test consider a general test to identify carbohydrates and separate them from other materials like proteins and lipids. This test give positive result which is purple color ring for all types of carbohydrates.
- Molisch's reagent is a solution of α -naphthol in 95% ethanol.
- When concentrated acid are added to the sugar, three water molecules are removed, forming cyclic aldehyde compound (furfural),The aldehyde group reacts with many aromatic compounds such as alpha-naphthol forming purple color ring that used to identify carbohydrates.
- Furfural is produced from dehydration of pentose sugars.
- 5-hydroxymethylfurfural is produced from dehydration of hexose sugars.
- The main purpose for molisch test is to distinguish between carbohydrates and other materials like proteins and lipids.

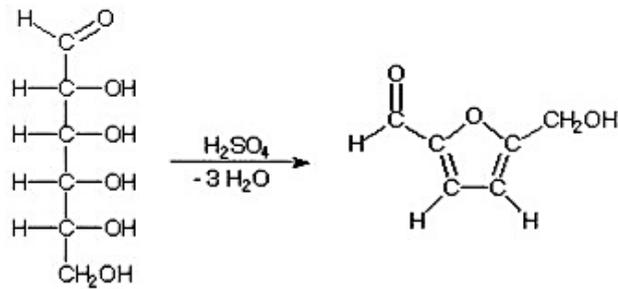
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➤ Molisch Test



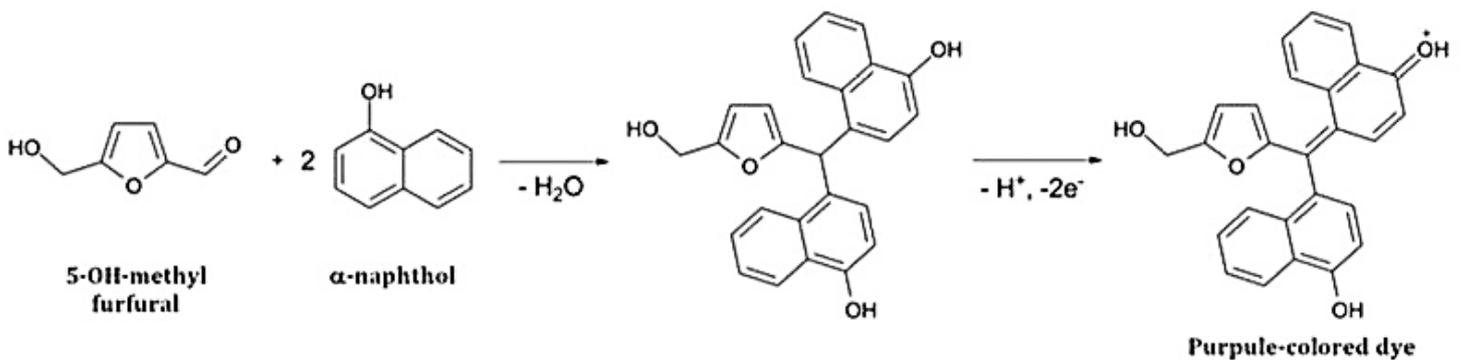
Pentose

Furfural



Hexose

5-OH-methyl furfural



5-OH-methyl furfural

α-naphthol

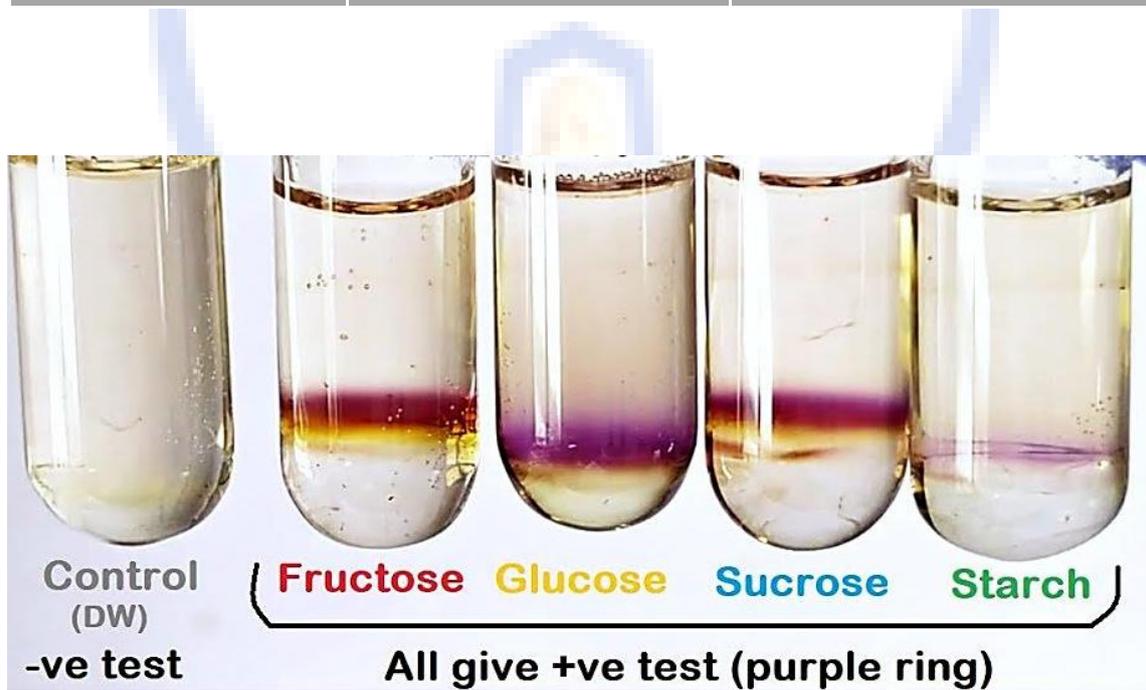
Purple-colored dye



➤ Method

To 2 ml of 1% sugar sample in a test tube, add (2-3) drops of freshly prepared (5%) α -naphthol in ethanol, and 1 ml conc. H_2SO_4 slowly and carefully along the side of the test tube

Sample	Observation	Inference
Sugar sample	Purple ring develops	Presence of carbohydrates



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