**BCH 302 practical**

**Lab Sheet #5**

**Carbohydrates-II**

**1-Sucrose Hydrolysis Test:**

-2 tubes add to each one 6ml of a sucrose solution

-Label the tube, 1st tube (Sucrose with HCl), 2nd tube (Sucrose without HCl)

-In 1st tube add 8 drops of conc. HCl

-Heat the both tubes for 15min

-After that in **1st tube** add 15 drops of conc. NaOH

-Take 2ml from 1st tube + 2ml benedict’s reagent 🡪 heat in water bath

-Take 2ml from 1st tube + 2.5ml seliwanoff’s reagent 🡪 heat in water bath

-Take 2ml from 2nd tube + 2ml Bendict’s reagent 🡪 heat in water bath

|  |  |  |
| --- | --- | --- |
| Sucrose without HCL | Sucrose with HCL | |
| Benedict's test | Seliwanoff's test | Benedict's test |
|  |  |  |

**2- The Iodine/Potassium Iodide Test:**

1-Two ml of a sample solution is placed in a test tube.

2- Add 2drops of iodine solution and one ml of water. Shake it well

3- A positive test is indicated by the formation of a blue-black complex

|  |  |
| --- | --- |
| Observation | Tube |
|  | (Starch + Iodine) without heating |
|  | (Starch + Iodine) after heating |
|  | (Glucose+ Iodine) |

**3- Hydrolysis of Starch:**

1-Two ml of starch in large tube

2- Add 3 drops of Hydrochloric acid, heated in boiling water bath for 15 mints.Then cool down the solution.

3-Add 1ml of sodium hydroxide to become the base

4-Divided in two tube (a,b)

5- In tube (a): add 1 ml of iodine solution and note the result.

6- In tube (b): add 1 ml of Benedict reagent, mix and heated for 3 mint and record result.

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| --- | --- |
| Starch with HCL | |
| Iodine test | Benedict's test |
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