2.1.7. Iodine Test:

This test is used for the detection of starch in the solution. The blue-black colour is due to the formation of starchiodine complex. Starch contains polymer of α -amylose and amylopectin which forms a complex with iodine to give the blue black colour.

$${\rm I_2+I^-\!\!\to\!\!I_3^-}$$
 Iodine slides into starch coil to give blue black colour

Fig. 7: Iodine Test

Experiment	Observation	Inference
lodine Test: Add 1 to 2 drops of lodine solution to 2-3 mL of sugar solution.	a. Blue colour is obtained b. Red colour is obtained c. Brown colour is obtained d. No characteristic change	a. Presence of Starch b. Presence of Dextrin c. Presence of Glycogen d. Absence of polysaccharides

Precautions

- Always wear lab coat and gloves when you are in the lab. Confirm the availability of all the reagents required for the experiment before performing the tests. If not available, prepare the reagents using appropriate chemicals needed for reagent preparation.
- Care should be taken to add the reagents and the test solutions in required proportions to obtain the exact
- result within the time period. The droppers used should not be mixed between the reagents, always use seperate droppers for each reagent.
- The color formed will depend upon the quality of the reagents. If commercially available reagents are used, ensure that it is not kept open for a long time.
- Clean the test tubes and glassware with soap and distilled water. Recap the reagent bottles once the experiment is completed.