



TITLE:

Some sugars reaction through reactives



OBJECTIVE:

recognizing some sugars

MATERIALS:

Test tube
Three bechers
Two syrinxs
Container

REAGENTS:

Maize starch
Saccharose
Glucose
Fehling's reactive A
Fehling's reactive B
Lugol's reactive
Hot water

PROCEDURE:

In three different bechers we put glucose, saccharose and maize starch



and in every becher we put some hot water, then in a control test tube we put only hot water.

In every becher and also in a control test tube we put ten drops of **Fehling's reactive (A and B)**.



We put the bechers and the test tube control solution in a container with hot water for ten minutes.



After ten minutes we removed them from the container.



In other three test tubes we put glucose, saccharose and maize starch, and we put some hot water in them.



In every test tube we put five
drops of
Lugol's reactive and...



... we put them in a container with hot water for ten minutes.

After ten minutes we removed them.



OBSERVATIONS:

(After ten minutes)

For a test tube with hot water
and **Fehling's reactive (A and B)**

we observed that:

SOLUTIONS	INITIAL COLOUR	FINAL COLOUR
GLUCOSE	BLUE	RED
SACCHAROSE	BLUE	BLUE
MAIZE STARCH	BLUE	BLUE
CONTROL'S SOLUTION	BLUE	BLUE



(after ten minutes)

For the test tubes with **Lugol's reactive**,
in the container with hot water
we observed that:

SOLUTIONS	INITIAL COLOUR	FINAL COLOUR
GLUCOSE	RED-ORANGE	RED-ORANGE
SACCHAROSE	RED-ORANGE	RED-ORANGE
MAIZE STARCH	BLACK	BLACK

INIZIAL COLOURS



FINAL COLOURS (AFTER REACTION)

CONCLUSIONS:

Different solutions react in different ways.

The saccharose and the maize starch don't react with Fehling's reactive (A and B) whereas the glucose, which is a monosaccharide, reacts with Fehling's reactive (A and B).

The glucose which is a monosaccharide and the saccharose which is a disaccharide don't react with the Lugol's reactive.

The maize starch is a polisaccharide, so it reacts with the Lugol's reactive.