

TAMANNA NASRIN's LAB REPORT

Vitamin C is a water-soluble vitamin that is present in some types of foods, as well as the different types of juices that this lab will be testing.

Statement Of Problem:-

How does the iodine and starch solution tell us the amount of vitamin C in a fruit juice? Why do some fruits have much higher vitamin C concentrations than others? Vitamin C is an antioxidant and will react with the iodine reaction. This reaction has a very distinctive dark blue color. The starch acts as an indicator, which shows that all the vitamin C has reacted with the iodine.

Hypothesis:-

When all the vitamin C is oxidized, iodine will be present, which will react with starch to form a blue-black complex. This process will then indicate which fruits have a higher concentration of vitamin C and which ones have a lower concentration of vitamin C based on the iodine drops.

Independent variable:- the presence of vitamin C, starch, and iodine. Dependent variable:- number of iodine drops per sample. Control variables:- the amount of starch and vitamin C added.

Materials:-

1. Iodine solution
2. Eye dropper
3. Beakers
4. Starch
5. Vitamin c tablets 1
6. Apple juice
7. Pineapple juice
8. Tomato juice
9. Spoon

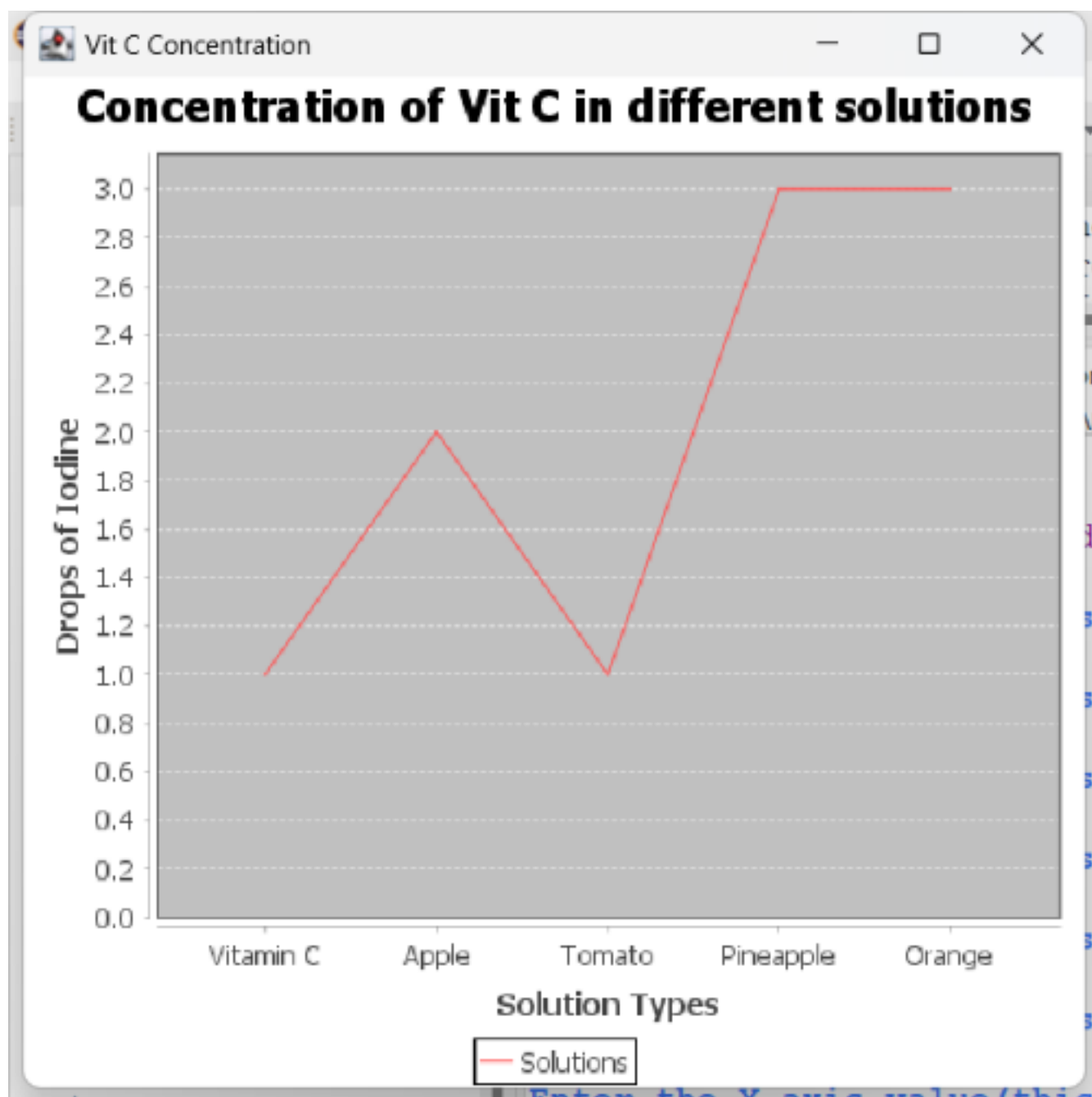
Methods:-

1. Dissolve 1 teaspoon of starch with a small amount of cold water (1-2 tablespoons) and add it to 250ml of boiling-hot water.
2. Stir it well until the starch dissolves and then let it cool.
3. Take 1 teaspoon of starch solution and add to the glass with 20mg of vitamin C using an eye dropper take some iodine solution and slowly drop.
4. Stir the mixture well at the same time.
5. The iodine will oxidize all the vitamin C in the solution, once it has all been oxidized, the iodine begins to react with starch.
6. Make sure to take note of the number of iodine drops it took to oxidize and turn the solution dark blue.

Lab Setup:-



Data Results:-



Conclusion:-

What the iodine solution and made us see was that the juice that is not altered in any way is the one that has the most Vitamin c in it and that can be due to all the substances that are in the juices that are from a big company.