

CHEMISTRY

Lab 11: Investigation of ascorbic acid content in orange juice

The aim of this investigation is to determine the vitamin C content in commercial and in fresh orange juice.

PROCEDURE

1. Dissolve 5 tablets of 90mg vitamin C in 450ml of water. This is your standard vitamin C solution.
2. Add 2ml of this solution in a test tube and titrate with the standard DCPIP solution provided.
3. Record the volume of DCPIP used.
4. Filter some fresh orange juice and two commercial orange juices.
5. Titrate 2ml of each juice with the standard DCPIP solution.
6. For each juice, record the volume of DCPIP used.

QUESTIONS

1. What is the amount of vitamin C in each titrated sample?
2. What is the amount of vitamin C in 100ml of juice?
3. Compare your findings with the amount stated on the carton box. What is the percentage error?
4. Compare the amount of vitamin C found in fresh and in commercial orange juices.