

**STUDY OF AMLA AS VITAMIN C RICH SOURCES****Ketaki Nandkumar Yadav***D. G. Tatkare Mahavidyalay Mangaon, Raigad***Abstract**

*The present work deals with the estimation of research work deals with the estimation of vitamin C in amla fruit using redox titration and we have interpreted how much amount of amla is required for good health and balance diet.*

**Keywords:-** Ascorbic acid, 0.01N Iodine , Starch indicator

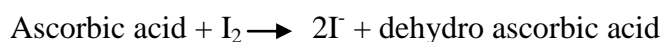


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**INTRODUCTION:-**

This method determines the vitamin C concentration in a solution by redox titration using iodine. Vitamin C more properly called ascorbic acid is an essential anti-oxidant needed by the human body.

As the iodine is added during the titration, the ascorbic acid is oxidized to dehydroascorbic. While the iodine is reduced to iodide ion.

**EXPERIMENTAL:-****MATERIAL AND METHODS:-**

Burette & stand

100ml or 200ml volumetric flask

20ml pipette

10ml & 100ml measuring cylinder

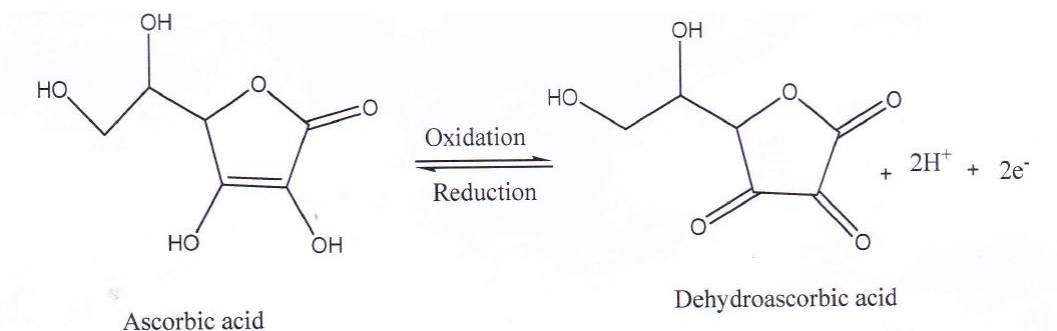
250ml conical flask

**TITRATION:-**

- i. Pipette out 20ml aliquot of the sample solution into a 250ml conical flask & add about 150ml of distilled water and 1ml of starch indicator.
- ii. Titrate the sample with 0.005mol/lit iodine solution the end point of the titration is identified as the first permanent trace of dark blue-black colour due to the starch iodine complex.

- iii. Repeat the titration with the further aliquot of sample solution until concordant result is obtained.

**REACTION:-**



**METHOD:-**

**For fresh fruit juice**

Stain the juice through cheesecloth to remove seeds the pulp which may block pipette.

**VITAMIN C-AMLA :-**

Vitamin C is an important antioxidant found in abundance in the Amla fruit. Amla contain even more vitamin C than Orange one Amla Fruit contain approximately 377mg of vitamin C supports your immune system by protecting it against pathogens and fighting diseases just one Amla Provides you with more than 100% of USD. Recommended daily intake of vitamin C- Amla. Averages 4-5 times were vitamin per serving than other citrus fruit.

**CALCULATION:-**

- i. Calculate the average volume of iodine solution used from your concordant titrates
- ii. Calculate the moles of iodine reacting.
- iii. Using the equation of the titration determine the no. of moles of ascorbic acid reading.
- iv. Calculate the concentration in mol/lit of ascorbic acid in the solution obtained from fruit juice. Calculate the conc. In mg/100gm of ascorbic acid, in the sample of the juice.

**CONCLUSION :-**

- After the estimation we got the accurate amount of vitamin c present in it.
- From this it is proved that amla is good and healthy natural food in our diet.
- It also contains less no. of carbohydrate.
- Amla helps to maintain the present of vitamin contain in our body.
- It is also proved that the temperature also doesn't matter more in the percent of vitamin present in amla.

- So it is proved to be a good dietary fruit.

**RESULT :-**

% of vitamin C in Amla extract (5ml)=9.55gm/lit  
=0.00955gm/ml

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