STUDY OF AMLA AS VITAMIN C RICH SOURCES

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Abstract

The present resk 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

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 reduce to iodide ion.

Ascorbic acid + I₂ → 2I⁻ + dehydro ascorbic acid

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 int a 250ml conical flask & add about 150ml of distilled water and 1ml of starch indicator.

ii. Titrante 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 te starch iodine complex.
iii. Repeate the titration with the further aliquot of sample solution until concordant result is obtained.

**REACTION:**

![Ascorbic acid to Dehydroascorbic acid reaction](image)

**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 then 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 into be of vitamin C- Amla. Averages 4-5 times were vitamin per seoving then other citrus fruit.

**CALCULATION:**

i. Calculate the average volume of iodine solution use 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

**REFERENCE**


