TITRIMETRIC ANALYSIS OF CALCIUM CATION IN "MEGATON" VARIETY OF CABBAGE

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Annotation: Below we continue our scientific work of cabbage, We would like to prove the titrimetric analysis of the calcium cation contained in the "megaton" variety. Food biochemistry not only studies the chemical composition of organisms, the chemical changes that occur during the life of humans, animals, plants, and microorganisms, but all these changes are collectively called biological exchange and form the basis of life.
Key words: cabbage, titrimetric analysis, calcium cation, megaton, Food biochemistry, the life, humans, animals, plants, and microorganisms.

INTRODUCTION

Food biochemistry not only studies the chemical composition of organisms, the chemical changes that occur during the life of humans, animals, plants, and microorganisms, but all these changes are collectively called biological exchange and form the basis of life.

The study of substances that make up organisms is an important task of food chemistry and is closely related to the science of bioorganic chemistry.

Since ancient times, people have been familiar with many biochemical processes that form the basis of various productions, such as baking bread, cheese making, and winemaking. The desire to increase the productivity of the fields, testing different plants as food, medicine, dyes, and agents required the study of their composition.

In antiquity and the Middle Ages, information about the composition of living organisms and the processes that take place in them was quite limited. From the Middle Ages, chemical methods began to be used in the study of plants, animals, and humans. In this direction, Great work was done by Arab scientists who founded alchemy, the primary form of chemistry, in the 7 th – 10 th centuries. The scientist who brought the work of Arab alchemists to the highest level and, one can say, laid the first foundation for the science of biochemistry, is our great compatriot Abu Ali ibn Sina. Ibn Sina's teaching in the field of food chemistry was so high that the scientists who were his contemporaries could not understand and continue [1-3].

Only by the end of the 19 th century, the application of chemical achievements to biology led to the development of biological chemistry as an independent science.

Biochemistry is one of the important branches of biology, which is the science of life, due to the fact that metabolism is the basis of all forms of life and the organism [4-6].

MATERIAL AND METHODS

Below we continue our scientific work of cabbage We would like to prove the titrimetric analysis of the calcium cation contained in the "megaton" variety.

$Ca(ClO_3)_2$ on an analytical balance. We measure 0.5÷1 g of $2H_2O$ salt and put it in a 250 ml flask, fill the flask with distilled water to 1/3, mix well, and then pour distilled water up to the line. We prepare a 0.1 N solution of Trilon B for titration. For this purpose, we prepare fixonal by dissolving it in a 1 l flask. Prepare a 20% solution of KOH. For this, we prepare 20 g of KOH salt with 80 g of distilled water. We will prepare a murexide indicator. To do this, we grind 0.2 g of murexide and 40 g of K_2SO_4 salt in a porcelain container for 1 hour.

RESULTS

We can use the prepared mixture as an indicator. We put solutions in each of the resulting aliquots in the following sequence: I. Aliquot - 10 ml; II. Distilled water - 100 ml; III. KOH - 5 ml; IV. Murexid - 2-3 drops; The indicator changes the color of the solution to light pink. Titrations are carried out in Trilon B.

Table 1.

Solution (ml)	Aliquot-1 (ml)	Aliquot-2 (ml)	Aliquot-3 (ml)	Solution color
Aliquots	10	10	10	Colorless
Dis water	100	100	100 Colorless	Colorless
KOH	5	5	5	Colorless
Murexid	0.1÷0.2	0.1÷0.2	0.1÷0.2 Light pink	Pale pink
Trylon B				Air color

Conclusion

Below we have cabbageTitrimetric analysis of calcium cation in "megaton" cultivar was carried out and the presence of calcium cation in this plant was proved.

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