

## OBTAINING FOOD ADDITIVES BASED ON THE ALOE PLANT

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***Abstract:** This article provides information about the beneficial aspects of aloe juice, its use in various diseases, and its chemical composition. The purpose of this work is to obtain food additives based on aloe juice.*

***Key words:** aloe vera composition, honey, gastritis, skin rash, types of aloe.*

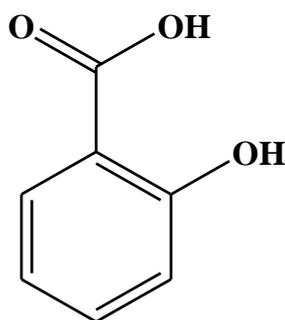
Aloe plant is an evergreen tree-like plant that reaches up to 4 m in its homeland. In medicine, two types of aloe - tree aloe - a.k.a. *Aloey arborescens* Mill and striped aloe - a.k.a. *Aloey striatula* Haw are used as a herbal remedy.

The homeland of aloe species is the semi-desert regions of southeastern Africa. They are grown as an annual plant in Georgia, Ukraine and Central Asia [1].

Today, in our country, the following types of aloe plants: *Aloey arborescens*, *Aloey Eru*, *Aloey variegata*, *Aloey striatula*, *Aloey absurda* are grown in homes.

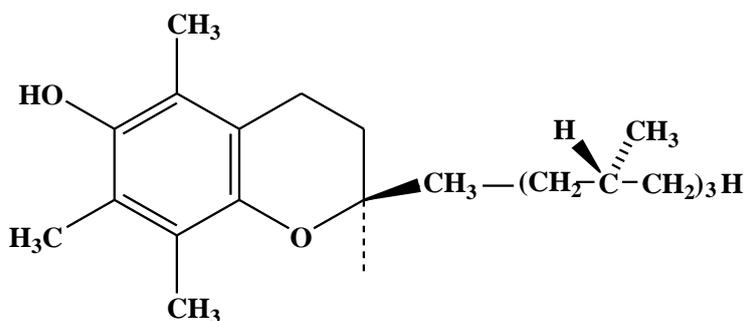
*Aloey vera* contains a large number of active components: for example, vitamins, enzymes, minerals, sugar, lignin, saponins and amino acids. Minerals: Calcium, chromium, copper, selenium, magnesium, manganese, potassium, sodium, phosphorus, chlorine, iron, chromium, zinc, cobalt. From fatty acids: cholesterol, campesterol,  $\beta$ -sitosterol and lupeol. Amino acids: Contains 20 of the 22 amino acids

and 7 of the 8 essential amino acids [2]. Non-essential amino acids: histidine, arginine, hydroxyproline, aspartic acid, glutamic acid, proline, glycine, alanine, essential amino acids: lysine, threonine, valine, leucine, isoleucine, phenylalanine, methionine. From vitamins: B1, B2, B3, B6, B9, B12, C, E, retinol. Antraglycosides: nataloin, emodin, aloin, homonataloin, rhubarberon. Enzymes include: cyclooxygenase, oxidase, amylase, catalase, lipase, alkaline phosphatase, carboxypeptidases. It also contains salicylic acid, which has anti-inflammatory and antibacterial properties [3].



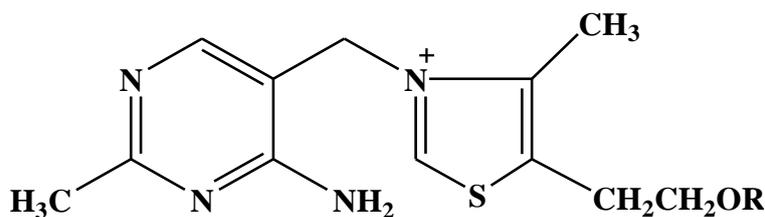
Salicylic acid

Among the natural antioxidants, vitamin E prevents the aging process of the body, strengthens the immune system, protects DNA, heart and nervous systems, balances cholesterol levels, rejuvenates the skin and even improves hair growth.



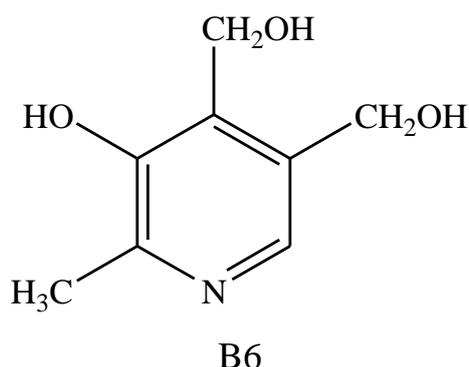
Vitamin E-tocopherol

Vitamin B1-thiamine normalizes the digestive system, participates in metabolism, controls blood flow, activates brain activity.

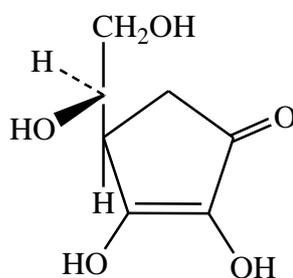


B1 vitamin-thiamine

Vitamin B6 participates in the metabolism of amino acids, fats, the work of the nervous system, and lowers cholesterol levels.

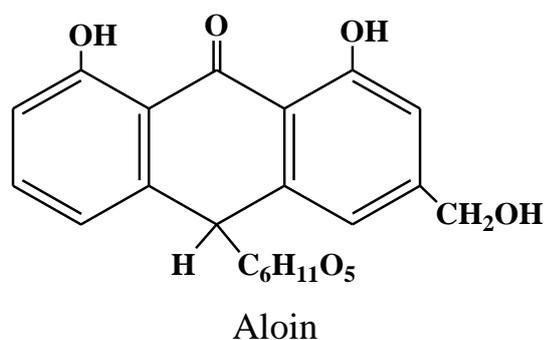


Vitamin C - ascorbic acid improves the condition of blood vessels, helps the body to fight infections, it also improves vision.

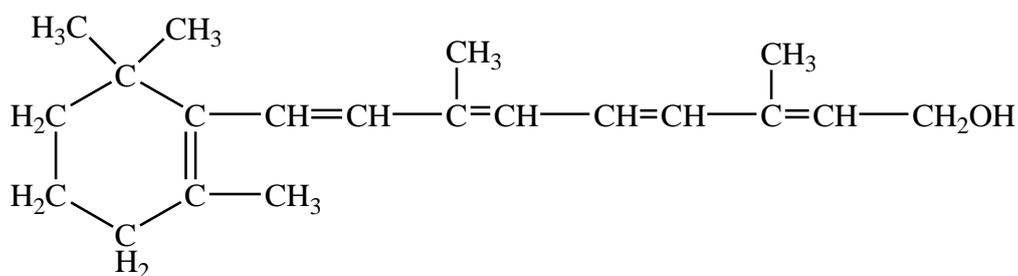


Vitamin C - ascorbic acid

Aloin is an alkaloid that protects the skin from the harmful effects of ultraviolet radiation.



Vitamin A (Retinol) - maintains eye health, ensures normal functioning of the immune system and organs, and supports the proper growth and development of the child in the womb.



### Vitamin A (Retinol)

Aloe juice and extract are widely used in the treatment of gastrointestinal diseases and are highly effective, for example: gastritis, gastric and duodenal ulcers, constipation, diarrhea, inflammation of the large intestine. From skin diseases: purulent areas, burns, vitiligo, blisters, skin rash (eczema), loss of freckles and spots, hair loss, boils, purulent skin diseases, eczema, herpes can be treated using aloe or its byproducts.

In addition, food supplements obtained from the aloe plant are used for bronchial asthma, nervous disorders, insomnia, infectious diseases, increasing immunity after debilitating diseases and poisoning, headache, rheumatism, inflammation of the bronchi, nosebleeds. They are also used in the treatment of sinusitis, flu, fatigue and a number of other diseases.

Taking two teaspoons of aloe juice half an hour before meals 2-3 times a day for a month helps to eliminate gastritis.

When honey and aloe are boiled together with the same ratio and two tablespoonful of the mixture is taken three times a day half an hour before meals, it will have a positive effect on diseases of the stomach, intestines, lungs, liver and bile.

For the treatment of skin blisters and skin rash (eczema), ointment made from aloe pulp, aloe powder, juice or leaves is mixed with butter in a ratio of 1/4 and applied twice a day to the blister or rash [4].

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