- determination of small quantities of the main components of the chemiluminescent reaction: hydrogen peroxide, oxidizing agents, organic compounds (inhibitors, activators), indicator substances, catalysts;
- in hybrid analytical methods for the detection of substances (chromatography);
- research of antioxidant and antiradical properties of substances.

Conclusion. From all the above it can be concluded that the chemiluminescent method of analysis is very promising for its further application in the research of the quality of medicinal products, the implementation of pharmaceutical analysis, as well as the diagnosis of diseases in medicine. Its advantages positively are the speed of the analysis, high sensitivity, the simplicity of the necessary equipment and relatively inexpensive unit analysis.

CORIANDER: DESCRIPTION, CHEMICAL COMPOSITION, APPLICATION AND PECULIARITIES OF QUALITATIVE ANALYSIS (REVIEW)

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Introduction. Among the cultivated food and medicinal plants in Ukraine, a special place was taken by coriander. Its popularity is due to the peculiarities of the chemical composition.

Aim. Systematization of data about the application of coriander in medicine and the national economy, about the research of its chemical composition and the features of qualitative analysis.

Coriander is an annual herbaceous plant up to 70 cm high with a thin stem root and rounded erect stems. Radical leaves are located on long petioles, the upper leaves grow on short petioles. Fruit is a cremocarp. Coriander blooms in May-July, fruits ripens in July-September.

Coriander is an essential oil plant, its fruits contain 0.7-1% essential oil and up to 28% fatty oil. Essential oil from mature fruit is a colorless liquid with a sharp odor and bitter taste, but it has a pleasant smell and taste with dilution or in micro doses.

Essential oil contains linalool (60-70%) (this is its main component), geraniol (up to 5%), and also borneol, terpinolene, felland, cymol, decylaldehyde and decyl acid. With further ripening of fruit, the amount of essential oil decreases, but the percentage of linalool increases.

The fatty oil consists of oleic (28.5%), isooleic (52%), linoleic (13.9%), palmitic (3.5%), stearic (1.5%) and myristic (0.6%) fatty acids acids, a small amount of alkaloids, vitamins A and C.

The originality of medicines containing coriander is proved by a qualitative chemical analysis. Qualitative reactions to the main component of the coriander (linalool):

- Discoloration of bromine water;
- Blur of solution with zinc chloride;
- Discoloration of potassium permanganate in acidic medium;
- Violet or purple-colored areas on the chromatogram (thin-layer chromatography).

Goodness is the compliance of the drug with the requirements of the normative documentation. In the case of coriander, the permissible fraction of damaged and immature fruits – no more than 3%, seeds of other species – no more than 1%, organic impurities – no more than 1%, mineral – no more than 0.5%.

During the drying of 1000 g of crushed coriander at a temperature of 105°C for 2 hours, no more than 14% of the weight is lost. The total amount of ash should not exceed the threshold of 8%. The share of ash is insoluble in chloride acid – a maximum of 1.5%.

In medicine, infusion of coriander seeds is used, which has antispasmodic, antiseptic and analgesic properties. The fruits of this plant are used as a correcting agent, and the preparations from them are used to stimulate appetite and improve digestion.

Decoctions of fruits and leaves are recommended for neurasthenia, liver and gall bladder diseases, gastritis and stomach ulcer. Mature fruits are part of the choleretic, gastric, laxative and anti-hemorrhagic

medicinal infusion. In addition, to improve the taste and smell of medicinal forms, often added ground coriander.

This plant is used for flavoring bread and confectionery products, marinades, sauces, sausages, cheeses, etc. Coriander essential oil is appliedi n the synthesis of linalyl acetate, citral and other substances necessary to give cosmetics the smell of lily of the valley, violets, roses, etc. Fatty oil is used in the soap industry and in the production of oleic acid.

Conclusion. Coriander has an important role in the pharmaceutical, food, perfume and chemical industries. But first of all, this plant helps to cure a lot of diseases without harming the body.

STUDYING OF THE PHYSICOCHEMICAL PROPERTIES OF A MICELLAR WATER

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Introduction. A micellar solution consists of a dispersion of micelles in a solvent (most usually water). Micelles consist of aggregated amphiphiles, and in a micellar solution these are in equilibrium with free, unaggregated amphiphiles. Micelles are important in industry and biology on account of their solubilizing function: matter can be transported by water after it has been dissolved in their hydrocarbon interiors. For this reason, micellar systems are used as detergents and drug carriers, and for organic synthesis, froth flotation, and petroleum recovery. Micellar water is widely used in cosmetology as a cleanser of a skin. Micelles are attracted to dirt, grime and oil and draw out impurities without drying the skin. It can contain vegetable and mineral extracts and moisturising ingredients. There a variety of brands for sale, some formulated especially for sensitive and delicate skin and others for oily skin.

Aim. The aim of the proposed work is to determine critical micelle concentration (CMC) using refractometric method and to propose optimal procedure for CMC determination in cosmetic product – Micellar water.

Materials and methods. The Micellar water “Garnier” for sensitive skin was used as the object of studying. The refraction index of varies micellar water concentration was measured by the laboratory refractometer RL 3 (Poland, Nr 19259/89). All the measurements have been performed at room temperature.

The initial Micellar concentration has been assumed as 100%. The concentrations 50%, 60%, 70%, 80% and 90% of Micellar water were obtained using the dilution in distilled water medium.

Results and discussion. Solutions of highly surface-active materials often exhibit unusual physical properties. In dilute solution, the surfactant acts as normal solute, but a fairly well defined concertation, abrupt changes in various physical properties are observed.

This is explained in terms of the formation of micelles, which are aggregates of typically 10 to 100 surfactant molecules with the hydrophobic parts orientated towards the interior and the polar groups on the outside in contact with the aqueous medium.

The concentration at which theses discontinuities in physical property occur is called the CMC. Below the CMC virtually all of the dissolved surfactant exists in monomolecular form.