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.

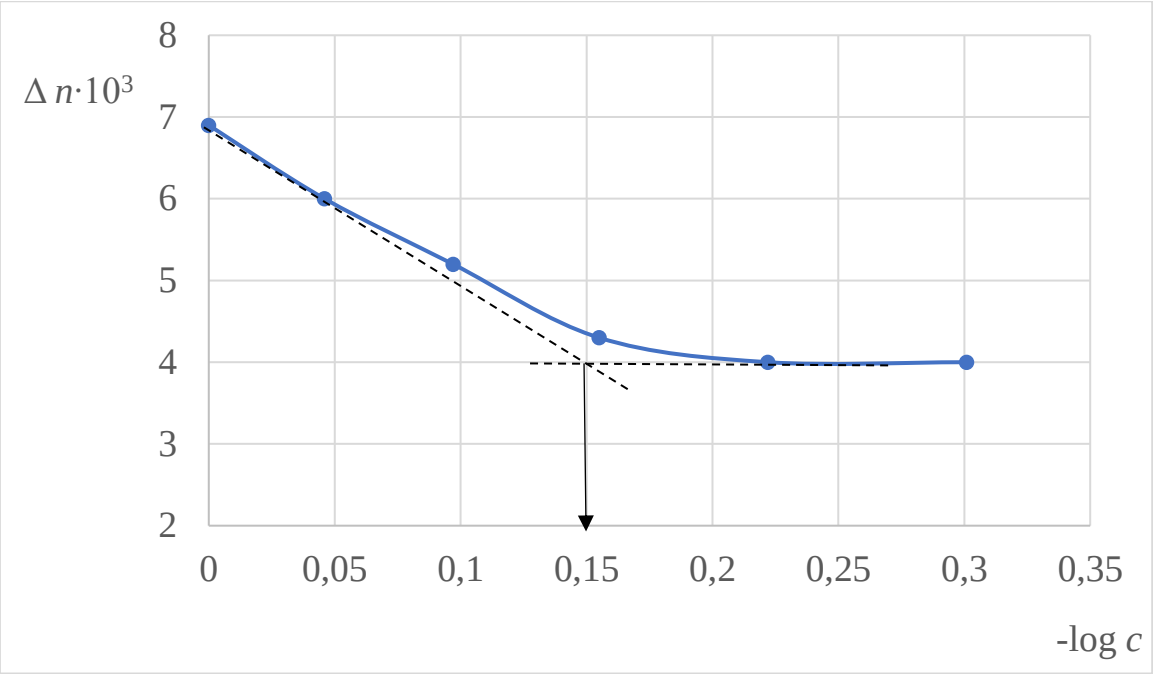

Fig. 1. Refractometric determination of the CMC of the "Garnier" Micellar water

The procedure is based on measuring the refraction indexes of the Micellar water various concentrations and comparing them to refraction index of distilled water (medium of the solution under study) illustrated in Fig. 1.

As it is seen from the graph, a sharp change of the physical property is observed under the concentration - log c = 0.15, which means that the CMC=70.8 %.

Conclusion. The proposed procedure in easy and quick in performance and can be applied in the teaching complex of Physical and Colloid Chemistry discipline studying for the Technologies of Perfumery and Cosmetics speciality students mainly and others. The data obtained can be used as a reference while preparing a Micellar water of different composition.

USE OF ENZYMES IN ANALYTICAL CHEMISTRY

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Introduction. Enzymes - biological catalysts - enable the many complex chemical reactions, upon which depends the very existence of life. Because enzymes work in complex living systems, one of their outstanding properties is specificity - ability to catalyzing a particular reaction of a particular substrate, even though other isomers of that substrate or similar substrates may be present.

Aim. Specificity and ability to catalyze reactions of substrates at low concentrations, makes it possible to widely used enzymes in chemical analysis. Enzyme – catalyzed reactions may be used for analytical purpose for determination of substrates and inhibitors, and also of enzymes themselves. Nowadays numerous enzymes are available in purified form, with high specific activity, at reasonable price.

Materials and methods. The concentrations of material participating in an enzyme reaction can be calculated in one two ways: by measuring the total change the occurs by chemical, physical or enzymatic analysis of the product or unreacted stating material; or (second method) by the rate of enzyme reaction. The total changes method can be used only for substrate analysis (S). For enzyme (E) and activator (A) and inhibitor (I) analysis may be used kinetic method, because are catalytic in nature and affect only the rate.