

The curative action of the muds of Lake Karachi, one of the sources of the formation of which is the brine shrimp *Artemia salina*, and the high physiological activity of extracts of these organisms, has served as a basis for their clinical investigation in order to find the biologically active substances.

In the first place, the greatest interest may be presented by the sterol fraction of the unsaponifiable part of *Artemia salina*. It is known that the presence of, for example, cholesterol in cell membranes imparts morphological stability to them and changes the mobility of the hydrocarbon chains of the lipids.

It has been shown in recent years [1] that sterols exert a considerable effect on the functional state of membranes.

In order to study the sterols, a mixture of 10.35 g of dewatered shrimps and 41.20 g of a 10% solution of potassium hydroxide in ethanol was boiled under reflux for 1 h and was extracted with diethyl ether (3 × 100 ml). The combined ethereal extracts were washed with saturated aqueous sodium chloride solution and dried with anhydrous sodium sulfate. After the solvent had been distilled off, 0.240 g of unsaponifiable residue was obtained. This 0.240 g of unsaponifiable residue was chromatographed on a column (700 × 10 mm) of silica gel (KSK, grain size 0.140-0.315 mm) to give 0.096 g of a white solid product.

According to GLC, the products obtained consisted of four components. By adding authentic substances and by chromato-mass-spectrometric analysis, cholest-5-en-3 β -ol (I), 24-methylcholest-5-en-3 β -ol (II), and 24-ethylcholest-5-en-3 β -ol (III) were identified. Their amounts in the mixture according to GLC results were 66% for compound (I), 10% for (II), and 19% for (III).

Analysis of the intensities of the lines of fragmentary ions and a comparison of the results obtained with the literature [2] permitted the conclusion that carbon atom 24 of compound (III) had the S configuration.

LITERATURE CITED

1. L. I. Apukhovskaya, S. P. Ivashkevich, and V. P. Vendt, *Vopr. Med. Khim.*, 5, 548 (1979).
2. S. R. Heller and G. W. Milne, EPA-MIH. Mass Spectral Data Base.

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