RESEARCH OF VOLATILES OILS OF COWBERRY LEAVES

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In the world there is a trend growing interest in herbal medicine. Microorganisms are resistant to many existing antibacterial agents and the use of medicinal plant raw material for making antimicrobial drugs is a promising direction of pharmaceutical science. Cowberry (*Vaccinium vitis idaea L.*) is a promising plant for creation a new uroseptic phyto medicine. Stocks of this plant in Ukraine are sufficient. In traditional medicine biologically active compounds of cowberry leaves are used to treat kidneys and urinary tract diseases. Cowberry leaves herbal tea, phyto medicine and dietary supplements (complex infusion Pankov, "Phytoren", "Milona14", "Burdok-C", "Glucosyl", "Cystophyt- forte") are available at the market.

There is description of the phenolic compounds of cowberry leaves in the literature only, while plant has a noticeable smell. The purpose of our study was to investigate the chemical composition of cowberry volatile substances.

Research was carried out by chromatography-mass spectrometry on gas chromatograph Agilent Technology 6890 with mass spectrometric detector 5973. Indexes retention of components were calculated on the results of analyzes of substances with the addition of a mixture of normal alkanes (C_{10}-C_{18}). Identification of compounds was achieved by comparison of obtained mass spectra with the mass spectra of reference compounds with high probability identified by program recognition of spectra databases.

Quantitative content of compounds was calculated from the ratio of components peak area to the sum of all peaks area in the chromatogram (method of normalization). The content of volatile matter is 0.25%.

It was found 29 substances, among which such compounds as benzoquinone, etylkapronat, *trans*-linalooloxide, *cis*-linalooloxide, hydroquinone, loliolid, *cis*-neofitadiene, hexahydrofarnezylacetone, nonacosane were identified. Dominant agents are hydroquinone, benzoquinone, *cis*-neofitadiene. Presence of identified volatiles component enhances uroseptic effect of medicinal plant materials.

The results are the foundation for the development of new drugs based on isoprenoids.