are well combined with medicinal substances, enhancing their therapeutic effect; affect carbohydrate metabolism more physiologically than synthetic antidiabetic drugs.

INVESTIGATION OF THE CHEMICAL COMPOSITION OF THE *LEDUM PALUSTRE* MODIFIED EXTRACT

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Introduction. Regular use of antibiotics could be the reason of allergic reactions, toxic effects on human organs, emergence of antibiotic resistance, disruption of the normal composition of the microflora and an increasing the growth of pathogenic microflora. That's why development of new herbal antimicrobial remedies that have other nature, action mechanism and properties is relevant. One of the perspective plants for research in this direction is *Ledum palustre* from the *Ericaceae* family. Various parts of this plant are used by folk and official medicine as an antitussive, antispasmodic, disinfectant, expectorant, diuretic, diaphoretic and sedative medicine.

During the development of new herbal medicines, one of the important stages is the standardization of the medicine and determination of its qualitative composition.

Aim. Therefore, the aim of our research was to study the qualitative composition of biologically active compounds of the modified extract of *Ledum palustre*.

Materials and methods. From shoots of *Ledum palustre* we obtained an extract with 96% ethanol, which was modified by adding zinc sulfate. Studies of the chemical composition of the modified extract were performed by methods of qualitative reaction and thin layer chromatography (TLC).

Presence of zinc ions in the modified extract was confirmed by using method of qualitative reactions. Addition of sodium hydroxide and sodium sulfide to the test sample caused the appearance of a white precipitate was observed. Qualitative reaction with potassium ferrocyanide caused the appearing of white precipitate.

Studies of terpene compounds of the modified extract were performed by TLC according to the method described in the monography "Ledi palustris cormus" of the State Pharmacopoeia of the Republic of Belarus (2007). Ethyl acetate: toluene (5:95) was used as the mobile phase. Chromatography was performed on plates with a layer of silica gel. While the mobile phase has passed 13 cm, the chromatograms were dried, treated with aniseed aldehyde and dried at 100-105 °C. Identification of terpene compounds was performed by Rf indexes of spots of experimental sample and by way of comparison with chromatograms of standard samples

Results and discussion. The results of studies of the qualitative composition of the modified extract of *Ledum palustre* confirmed the presence of zinc ions in the extract and the presence of terpene compounds: ledol and palustrol.

Conclusions. The obtained results will be used by us in the future in the development of quality control methods for a modified extract of *Ledum palustre*.