

# IDENTIFICATION OF VOLATILE COMPOUNDS OF *JUNIPERUS SABINA* L. NEEDLES

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**Introduction.** Under the influence of environmental factors, new, mutating microorganisms appear that are causative agents of dermatological diseases and are not sensitive to traditional drugs. Therefore, the search for natural sources of biologically active substances (BAS) for the creation of effective antimicrobial and bactericidal agents is urgent. *Juniperus sabina* L. is a representative of the cypress family *Cupressaceae* of the genus *Juniperus*. It is known from literary sources that lipophilic substances, in particular, volatile compounds that are part of essential oils, have a wide spectrum of antimicrobial activity [1, 4]. Therefore, the study of volatile compounds of the needles of *Juniperus sabina* L. is relevant in order to expand information on the chemical composition of the raw material and predict its further use.

**Materials and methods.** Volatile components were determined in the lipophilic fraction of needles obtained by chloroform. An Agilent Technology HP6890 GC chromatograph with a 5973N mass spectrometric detector was used. Analysis conditions: quartz chromatographic column, capillary HP-5MS, column length 30 m, inner diameter 0.25 mm; carrier gas – helium; speed of movement of carrier gas 1 ml/1 min.; sample volume – 2 µl.; sample introduction in splitless mode; sample injection rate 1.2 ml/1 min for 0.2 min.; thermostat temperature 50° C with programming 4%/min up to 220 0C; the temperature of the detector and evaporator is 250° C [2, 5].

**Results and discussion.** In the lipophilic fraction 25 essential compounds of different chemical structures were found. Were identified  $\alpha$ -pinene, sabinol, sabinene,  $\alpha$ -pinene,  $\alpha$ -thujene, terpinene, geraniol, cadinene,  $\alpha$ -terpinene. According to the literature, the identified volatile compounds have an antimicrobial, bactericidal, antifungal effect, in particular, against *Staphylococcus aureus*, which can be used in the future to create medicines for the treatment of skin diseases (eczema, dermatitis) caused by this pathogen [2].

## References:

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