



60

years
anniversary

*Acad. S.Yu. Yunusov Institute of the
Chemistry of Plant Substances AS Ruz*

**12th International
Symposium on the Chemistry
of Natural Compounds**

ABSTRACTS

**September 7-8, 2017
Tashkent, Uzbekistan**



60

years
anniversary

*Acad. S.Yu. Yunusov Institute of the
Chemistry of Plant Substances AS RUZ*

**12th International
Symposium on the Chemistry
of Natural Compounds**



ABSTRACTS

**September 7-8, 2017
Tashkent, Uzbekistan**

SPONSORS

The Organizing Committee of 12th International Symposium on the Chemistry of Natural Compounds acknowledges with gratitude the support of the following companies and organizations



Chinese Academy of Sciences - Central Asian
Drug Discovery and Development Centre



“Central Asian research and production centre of
biologically active compounds” LLC



«Nobel Pharmsanoat» Foreign Venture

УЗФАРМСАНОАТ

ГОСУДАРСТВЕННО АКЦИОНЕРНЫЙ КОНЦЕРН

State-Joint-Stock Concern «Uzpharmsanoat»



«ASKLEPIY» Joint-Stock Company Ltd.



Scientific Manufacturing Enterprise «RADIKS»



«Laxisam Pharmaceuticals» Ltd.

NIKA PHARM
качество стало доступным

SBA «NIKA PHARM»



O'ZBEKOZIQOVQATXOLDING
XOLDING KOMPANIYASI

«O'zbekoziqovqatxolding» Holding Company



O'zklmyofarm

Manfaatlik jamiyati

«O'ZKIMYOFARM» Joint-Stock Company Ltd.



«Plant Group» Ltd.



«Zomin Pharm» LLC.

A STUDY OF THE MAIN GROUPS OF BIOLOGICALLY ACTIVE COMPOUNDS OF THE AERIAL PARTS OF *Satureja amani* PLANTS OF KAZAKHSTAN SPECIES

A. N. Nurtazina, A. K. Umbetova, Z. B. Halmenova

Al-Farabi Kazakh National University, Faculty of Chemistry and Chemical Engineering, Kazakhstan, Almaty, 050040, fax: +7(727) 377 33 44, e-mail: alusha_93@mail.ru

Lamiaceae Lindle families consists of 200 sorts and 3500 species and occupies the 13th place by the variety of species and the 3rd place by the distribution on the Earth.

The object of our research is the aerial part of *Satureja* plant genus. This plant was prepared during blossoming at the Institute of Phytointroduction and Botany at the Ministry of science and education of the Republic of Kazakhstan.

The *Satureja* plants are known to be a source of obtaining essential oil. According to V. A. Krastelevsky, an yield of essential oil from dry grass reaches 0.37%; from fresh it reaches 0.1%. The quality of oil to a significant extent depends on the vegetation stage. The composition of oil contains has resulted in founding: 30–42% of a karvakrol, to 20% of a tsimol and 40% of terpenes.

Phytochemical research alkaloids, glycosides, organic acids, iridoida, carbonic acids, flavonoids, tannins, phytoncides, saponina and some other Biologically Active Substance.

The most optimal extract both for leaves and for stalks is 50% ethyl alcohol. Based on the obtained data. The technological schemes of obtaining substances have been made.

Early we investigated amino-, acid-fatty and vitamin of *S. amani* plants. 3 types of vitamins, 8 fatty acids and 20 free amino acids have been identified. The ointment based on Vaselinum. Its pharmaceutical properties were not studied. Further it is planned to obtain tinctures in different ratios and to obtain drug.

The volatile oils constitutes were extracted from the aerial part of a *Satureja amani* plant by water steam distillation. They were analyzed by GC-MS method. Eighty three compounds were separated. Their relative contents were determined by area normalization in which 83 volatiles were identified. Active principles of the Kazakh traditional plant medicine that are responsible for the activity were determined. The major volatile constituents are hexacosane (16.52%), tricosane (13.12%) and heneicosane, 11-decyl- (7.94%). They have antihypernociception, anti-inflammatory, antimicrobial, antibacterial and analgesic activities respectively.

Satureja has a stimulant, carminative, astringent, diaphoretic, antibacterial, antifungal, antiparasitic, antiviral, expectorant, antioxidant and analgesic properties. It is used in the treatment of diseases of the cardiovascular, digestive and nervous systems. *Satureja* species stimulates appetite, improves digestion, helps to cure flatulence, diabetes, headaches, tones, increases appetite.