MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION OF THE REPUBLIC OF UZBEKISTAN

MINISTRY OF HEALTH OF THE REPUBLIC OF UZBEKISTAN

TASHKENT PHARMACEUTICAL INSTITUTE

INNOVATIVE ACADEMY

THE ABSTRACT BOOK OF THE VI INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE "MODERN PHARMACEUTICS: ACTUAL PROBLEMS AND PROSPECTS"

OCTOBER 17, 2025

TASHKENT - 2025

O'ZBEKISTON RESPUBLIKASI SOG'LIQNI SAQLASH VAZIRLIGI
TOSHKENT FARMATSEVTIKA INSTITUTI

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МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ УЗБЕКИСТАН
ТАШКЕНТСКИЙ ФАРМАЦЕВТИЧЕСКИЙ ИНСТИТУТ

"FARMATSEVTIKA SOHASINING BUGUNGI HOLATI: MUAMMOLAR VA ISTIQBOLLAR"

MAVZUSIDAGI VI XALQARO ILMIY-AMALIY ANJUMANI MATERIALLAR TO'PLAMI

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МАТЕРИАЛЫ VI МЕЖДУНАРОДНОЙ НАУЧНО-ПРАКТИЧЕСКОЙ КОНФЕРЕНЦИИ

«СОВРЕМЕННОЕ СОСТОЯНИЕ ФАРМАЦЕВТИЧЕСКОЙ ОТРАСЛИ: ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ»

Conference materials are indexed in the following databases:

«Innovative Academy RSC»
Tashkent – 2025

NEUTRAL LIPIDS OF THE AERIAL PART OF *ARTEMISIA JUNCEA*

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https://doi.org/10.5281/zenodo.17334162

Introduction. *Artemisia juncea* Kar. et Kir. (rush-like wormwood, family Asteraceae) is a perennial herbaceous halophytic plant growing on moderately saline soils and is one of the most widespread Artemisia species in the flora of Uzbekistan. *A. juncea* is widely used in folk and traditional medicine. The leaves and stems are used in the treatment of liver diseases, the inflorescences are applied for rhinitis, cough, and fever, and pastes made from the fresh plant are used externally for abscesses and acne. The aerial part and roots of the plant are used in Tibetan medicine for the treatment of tumors, abscesses, as an anthelmintic, and for anthrax.

The aim of this study was to investigate the neutral lipids of the aerial part of *A. juncea* collected in the Bukhara region.

Materials and methods. The content of neutral lipids (NL) was determined in triplicate by maceration using extraction-grade petroleum ether (b.p. 72–80 °C). The qualitative composition of NL classes was identified by analytical thin-layer chromatography on silica gel using a hexane–diethyl ether (4:1) solvent system. The identification of spots on the plates was carried out based on specific reactions and by comparing the (R*f*) values with those of reference compounds.

Results. The content of NL was 1,60% on a dry weight basis. The NL composition included unsaturated hydrocarbons, aliphatic alcohols, free fatty acids, free triterpenols, and phytosterols. Triacylglycerols were present in trace amounts. According to spectrophotometric data, the carotenoid content in NL was 25,0 mg%. Fatty acids were isolated from NL by alkaline hydrolysis, converted to their methyl esters using diazomethane, and analyzed by gas chromatography on an Agilent 8860GC (table).

Table. Composition of fatty acids of neutral lipids of the aerial part of *A. juncea*, GC, % of acids mass

Acid	%	Acid	%
10:0, 14:0, 15:0, 17:0	8,10	20:0	1,45
16:0	20,35	20:1	1,29
16:1	3,97	22:0	1,97
18:0	2,84	22:1	2,37
cis-18:1n9	13,98	24:0	1,20
trans- 18:1	3,93	24:1	1,69
18:2n6	30,31	Σsaturated fatty acid	35,91
18:3n3	6,55	Σunsaturated fatty acid	64,09

Conclusions. The results obtained show that the aerial part of *A. juncea* growing in Uzbekistan contains 1,60% NL. The fatty acid composition consists of 16 components, with unsaturated fatty acids predominating (64,09%). The full set of high-molecular-weight fatty acids 20:0, 22:0, and 24:0 was identified.

Financing. This work was carried out using budgetary funds of ICPS the Academy of Sciences of the Republic of Uzbekistan. We thank the Academy of Sciences of the Republic of Uzbekistan for supporting this study.