ACADEMY OF SCIENCES
OF THE REPUBLIC OF UZBEKISTAN

S.Yu. Yunusov Institute of the
Chemistry of Plant Substances

Journal of Chemistry of Natural Compounds

Society of Chemists of Uzbekistan

"ACTUAL PROBLEMS OF THE CHEMISTRY OF NATURAL COMPOUNDS»

SCIENTIFIC CONFERENCE OF YOUNG SCIENTISTS

Dedicated to the memory
of Academician Sabir Yunusovich Yunusov

March 17, 2022

TASHKENT

ACADEMICIAN
SABIR YUNUSOVICH YUNUSOV
(1909-1995)

Topics OF CONFERENCE

1. Chemistry, technology and pharmacology of natural compounds.
2. Biotechnology and orgamic chemistry.

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17 March

8.00–9.00 **Registration of the participants of the Conference**
(Acad. S.Yu. Yunusov Institute of the Chemistry of Plant Substances, Tashkent, M. Ulugbek st., 77)

9.00–9.10 **OPENING CEREMONY**
Welcome speech of director of the Institute of the Chemistry of Plant Substances
Prof. Sh. Sh. Sagdullaev

9.10–10:00 **MEMORIES OF THE LIFE AND SCIENTIFIC ACTIVITY OF ACADEMICIAN S.YU. YUNUSOV**
Doc. S.Z. Nishanbaev

ORAL PRESENTATIONS

Chairmen: Prof. Batirov E.Kh.
Secretary: Turaeva S.M.

10.00–10.15 **B.S. Okhundedaev** Flavonoids of plants of the genus *Artemisia*. Flavones and sesquiterpene lactone from *Artemisia juncea*.

10.15–10.30 **A.U. Ubaydullaev.** Electrophilic exchange reactions of the quinoline alkaloid haplopyhilidine

10.30–10.45 **U.B. Khamidova.** 5-amino-1,3,4-thiadiazolthion derivatives as potential anti-cancer agents

10.45–11.00 **N.K.Usmanova**. Chemical components of the medical plant *Melilotus officinalis*

11.00–11.15 **L. Kozinskaya.** Mechanism of the formation of indolcrown ethers by the bartoli-grignard reaction

11.15–11.30 **D.Z. Azizov.** Structure and biological activity of arabinogalactans of Ferula kuhistanica and *Ferula tenuisecta*

11.30–11.45 **A.U.Berdiev.** Synthesis of 4-substituted-5,6-polymethylenethieno [2,3- d]pyrimidines

12.00–12.15 **Z.F.Nuriddinov.** Study of Separation Conditions and Biological Evaluation of Natural Compounds from Echis carinatus Snake Venom

12.15–12.30 **Sh.Sh. Khusenova.** Determination of the quantity of the total flavonoids in dry diabderm extract.

12.30-12.45 **Q.G. Khajibayev.** The study of the amount of organic elements in the cyst of Artemia of the Aral Sea

12.45-13.00 **M.E. Ziyadullaev.** N-(4-oxo-3,4-dihydroquinazolin-6-yl) acetamide synthesis and biological activity

13.00–14.00 **Break and POSTER PRESENTATIONS**

Dry extract technology and quality analysis of garlic (*Allium Sativum* L.) consisting in the antihelmintic composition

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Currently, more than 250 types of vomiting live parasitically in the human body throughout the world. Vomiting diseases are three in humans, animals and plants. In our scientific research work, medicinal plant raw materials were selected for taking antihelmintic drugs, among which garlic onions are used as an antihelmintic agent in folk medicme and medicine. Garlic - Allium sativum L. belongs to the family of onion-Llliaceae, a perennial bulbous herbaceous plant. The bulb is muiti-layered, covered with an egg-like or flat-spherical, violet-red or white peel. The experiments were determined the content of phenolic compounds, flavonoids and phenolic acids in garlic varieties grown in different places. No flavonoids myricetin, quercetin, kaempferol, and apigenin were detected in any of the samples. The average content of vanillic, caffeic acid and gallic acid was significant in different varieties. In experiments, it was found that garlic can be useful as an alternative treatment against animals and human nematode parasites.

The purpose of the work. Study of the technology and quality analysis of dry extract of garlic bulbs.

Part of the experiment. The technology of obtainmg dry extract of garlic bulbs was carried out by percolation. To do this, grind the peeled garlic bulbs. The crushed garlic bulb was then extracted 1 time with chloroform in an extractor. In this case, garlic oil was extracted. Filtered. The rest was dried in a drying oven. The dried part was extracted 3 times in 70% ethyl alcohol by percolation. Then the extracts are combined. The combined extracts were put in a rotor vaporizer and the alcohol contained was expelled. The resulting thick extract was dried in a drying oven and a dry extract was obtained.

Quantitative analysis of flavonoids in the dry extract of garlic bulb was carried out by the method of high-efficiency liquid chromatography. The experiments were performed on a high-efficiency liquid chromatograph Agilent 1200. According to the results of the analysis, the dry extract contained an average of 0.0332 mg / g of luteolin and an average of 1.275 mg / g of rutin.

Conclusion. The technology of dry extract of garlic bulb, which is part of the anti-helminth extract, was studied and a qualitative analysis was performed. The dry extract contained an average of 0.0332 mg / g of luteolin and an average of 1.275 mg / g of rutin.

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