

**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 organic 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 haplopyhilidme
- 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
arabimogalactans 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**

ORAL PRESENTATIONS

Chairmen: prof. Rakhmanberdieva R.K.

Secretary: Siddikov D.R.

- 14.00–14.15 **A.Sh. Yashinov.** HIV-RT Inhibiting Peptides of the *Bufo viridis* Toad Venom
- 14.30–14.45 **A.R. Khurramov.** Gracillin and 5- α -hydroxylaxogemin from the *Saponaria officinalis*
- 15.00–15.15 **S.M.Allabergenova.** Synthesis of 2-ethyl-3-methyl(ethyl)quinazoline-4-one sulphoamides
- 15.15–15.30 **A.A. Makhnyov.** Modern principles for the isolation of nucleic acids from biological samples
- 15.30–15.45 **Z.Sh.Mukhidova.** Pesticide activity of natural terpenoids
- 15.45–16.00 **A.A. Siddikova.** Pectin substances of *Scutellaria comosa* and their anti-ulcer activity.
- 16.00–16.15 **M.U.Turanazarov.** Isolation and Purification of a novel peptide from the *Buthus eupeus* venom
- 16.15–16.30 **U.Yu. Yusupova.** Biological active compounds from aerial part of *Silene tomentella*.
- 16.30–16.45 **S.S. Ziyavitdenova** Study of anticancer activity of decoglitiz preparation on solid ehrlich tumor
- 16.45–17.00 AWARDS CEREMONY**

DNA EXTRACTION FROM FRUITS

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Nucleic acids are complex high-molecular biological polymers, which play an important role in ensuring the development, renewal and continuation of life forms. It consists of a polynucleotide chain, formed as a result of the connection of mononucleotides containing nitrogen bases, pentose and phosphoric acid with mutual phosphodiesteric bonds, the composition of which is 15-16% nitrogen, about 10% phosphorus.

The subject of DNA extraction from natural sources is given to the students of the chemistry education department in the Department of laboratory studies in the curriculum of Bioorganic Chemistry. In the existing educational literature, methods for extracting DNA from black beans, cotton seeds are presented. The method we offer is much easier and does not require much time, even if it is done at home. DNA extraction from banana fruit is carried out as follows.



To do this, mix 110 g of soup on 10 ml of water with 10 ml of liquid gel, which is used when washing dishes. Measure 20 ml of ethyl alcohol and put it in a mouth-watering container and put it in the refrigerator. Then a slice of banana fruit is separated from the peel. Its halves are cut and put in a polyethylene bag. On top of the bag with a banana put our prepared solution is poured. The bag is tightly poured into the mouth, the banana fruit is slowly crushed, using fingers, spreading so that the DNA strands do not break off.

The resulting dark mass is filtered through a sieve. Of the filtered liquid, 80 ml is measured and poured into a large glass with a volume. Over it, alcohol is obtained in the refrigerator, poured slowly with asthalik and the mixture is left a little calm. As a result, DNA in the genome state is deposited on the surface of the liquid with a shield. The strands of DNA that are stuck are surrounded with the help of a pinsetter. In conclusion, we can say that this method is much more convenient, it can be done by students even at home. Even a simple onion can get DNA in this way.

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