

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



**14th International Symposium on the
Chemistry of Natural Compounds**

**DEVOTED TO 30-YEAR ANNIVERSARY OF THE
INDEPENDENCE OF THE REPUBLIC OF UZBEKISTAN**

PROGRAMME

**October 7-8, 2021
Tashkent, Uzbekistan**

1. Chemistry, biology and technology of natural compounds and their derivatives.
2. Progress and problems of new medicinal preparations.

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7 OCTOBER

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

9.00–9.20 **OPENING CEREMONY**
**Greeting address from B.S. Yuldashev, President of the Academy
of Sciences of the Republic of Uzbekistan**

WELCOME SPEECH OF CO-CHAIRMEN

Prof. Dr. Sh. Sh. Sagdullaev
Prof. Dr. K. H. C. Baser
Prof. Dr. H. A. Aisa (online)

9.20–11.00 **MEMORIES OF THE LIFE AND SCIENTIFIC ACTIVITY
OF ACADEMICIAN KH. N. ARIPOV**

- **Prof. N. D. Abdullaev**
- **Memories of colleagues and friends**

11.00–11.20 **Break**

PLENARY PRESENTATIONS

Chairmen: Prof. Dr. Sh. S. Azimova
Secretary: Dr. S. A. Sasmakov

- 11.20–11.40 **S. M. Adekenov.** PLANT SESQUITERPENE LACTONES
– A PROSPECTIVE GROUP OF BIOLOGICALLY ACTIVE
COMPOUNDS
- 11.40–12.00 **H.A. Aisa.** THE POLYPHENOLS FROM THE PEELS
OF POMEGRANATE (*PUNICA GRANATUM* L.) AND THEIR
BIOLOGICAL ACTIVITIES (**online**)
- 12.00–12.20 **R.Z. Sabirov.** THE VOLUME-ACTIVATED ANION
CHANNELS AS PHARMACOLOGICAL TARGETS
- 12.20–12.40 **E. E. Shults.** MULTICOMPONENT DESIGN AND
STEP-ECONOMY SYNTHESIS OF NEW
PHARMACOLOGICALLY PROMISING AGENTS BASED
ON PLANT ALKALOIDS
- 12.40–13.00 **K.H.C. Baser.** ESSENTIAL OILS OF PHLOMIS SPECIES
OF TURKEY

13.00–14.00 **Lunch**

PLENARY PRESENTATIONS

Chairmen: Prof. Dr. B.J. Elmuradov

Secretary: Dr. D. A. Usmanov

- 14.00–14.20 **S.M. Adekenov.** SESQUITERPENE γ -LACTONES WITH THE OXIRANE CYCLE – POTENTIAL SOURCES OF NEW MEDICINAL SUBSTANCES
- 14.20–14.40 **V.N. Reshetnikov.** GENE POOL OF ECONOMICALLY VALUABLE PLANTS: BIOTECHNOLOGICAL METHOD OF CONSERVATION AND RATIONAL USE (**online**)
- 14.40–15.00 **V.P. Khilya.** NATURAL AND MODIFIED FLAVONOIDS IN THE SYNTHESIS OF NEW *N*-,*O*-CONTAINING HETEROCYCLIC SYSTEMS
- 15.00–15.20 **A.Y. Baev.** ECDYSTERONE PROTECTS MITOCHONDRIA FROM IMMOBILIZATION STRESS – INSIGHT FROM *IN VIVO*, *IN VITRO* AND *IN SILICO* EXPERIMENTS
- 15.20–15.40 **Ahmad Ali.** ACESULFAME POTASSIUM PREVENTS GLYCATION INDUCED STRUCTURAL ALTERATIONS IN BIOMOLECULES
- 15.40–16.00 **Emre Hamurtekin.** BENEFICIAL EFFECTS OF SOME NATURAL PRODUCTS FOR THE TREATMENT OF SARS-COV-2 INFECTION: MOLECULAR PHARMACOLOGY APPROACH
- 16.00–16.20 **Ihsan Calis.** SECONDARY METABOLITES FROM THREE ENDEMIC POLYGALA SPECIES OF TURKEY
- 16.20–16.40 **K.A. Eshbakova.** TERPENOIDS AND TERPENOID GLYCOSIDES, STEROIDS, FLAVONOIDS AND FLAVONOID GLYCOSIDES, PHENOLIC ACIDS FROM FAMILY *ASTERACEAE*, *APIACEAE* AND THEIR BIOLOGICAL ACTIVITY
- 16.40–17.00 **N.Z. Mamadalieva.** METABOLOMICS DRIVEN ANALYSIS OF 20 *ASTRAGALUS* SPECIES VIA UPLC-MS/MS AND NMR COUPLED TO CHEMOMETRICS
- 17.00–17.20 **R.P. Zakirova.** COMPARATIVE STUDY OF BIOLOGICAL AND CHEMICAL FEATURES OF CELL LINE *AJUGA TURKESTANICA*
- 18.00 **Dinner party**

8 OCTOBER

PLENARY PRESENTATIONS

Chairmen: Prof. Dr. E.E. Shults

Secretary: F. B. Eshboev

- 9.00–9.20 **K. H. C. Baser.** ESSENTIAL OILS OF PHLOMIS SPECIES OF NORTHERN CYPRUS
- 9.20–9.40 **Jingshan Shen.** INTRODUCTION OF AN ORAL ANTI-SARS-COV-2 DRUG CANDIDATE, VV116 (**online**)

ORAL PRESENTATIONS

- 9.40–10.00 **S.A. Fedoreev.** NEW DRUGS FROM FAR EASTERN PLANT *MAACKIA AMURENSIS* (**online**)
- 10.00–10.20 **N.P. Mishchenko.** QUINOID PIGMENTS OF SEA URCHINS AS POTENTIAL ANTIVIRAL DRUGS (**online**)
- 10.20–10.40 **M. Maiwulanjiang.** SEPARATION AND QUALITATIVE STUDY OF *MENTHA ASIATICA*. ESSENTIAL OIL COMPONENTS BY PREP-GC, GC-QTOF-MS, NMR AND PREDICTION OF BIOACTIVE COMPOUNDS (**online**)
- 10.40–11.00 **Guangmin Yao.** NOVEL NATURAL PRODUCTS FROM THE ROOTS OF SALVIA DESERT AND THEIR BIOLOGICAL ACTIVITIES (**online**)
- 11.00–11.20 **Zuopeng Li.** ISOLATION AND IDENTIFICATION OF CHEMICAL CONSTITUENTS FROM *HUMULUS LUPULUS* (**online**)
- 11.20–11.40 **Break**

Chairmen: Dr. F.M. Tursunkhodjaeva

Secretary: Dr. Kh.M. Bobakulov

- 11.40–11.50 **Yu. R. Mirzaev.** ALKALOID DONAXINE IS THE NEW PSYCHOTROPIC COMPOUND
- 11.50–12.00 **S.A. Sasmakov.** OBTAINING OF RESISTANT STRAINS OF MICROORGANISMS TO ANTIBIOTICS FOR *IN VITRO* EVALUATING OF ANTIMICROBIAL ACTIVITY
- 12.00–12.10 **F.A. Navruzov.** ANTIHYPOXIC EFFECT OF CYTISINE DERIVATIVES ON CYTOTOXIC HYPOXIA MODEL
- 12.10–12.20 **I.D. Bobaev.** RHEOLOGICAL CHARACTERISTICS OF ANTI-INFLAMMATORY GELS BASED ON VITASTEROIDS FROM PLANTS OF THE GENUS *DATURA* AND *PHYSALIS*
- 12.20–12.30 **T.T. Zhumabaeva.** BIOCHEMICAL CYCLE OF THE

- L*-ARGININE AND NITRIC OXIDE SYNTHESIS IN THE CELLS WITH NO SYNTHASE EXPRESS CAPACITY
- 12.30–12.40 **B.S. Temirgaziev.** NEW SUPRAMOLECULAR ENSEMBLES BASED ON PHYTOECDYSONES
- 12.40–12.50 **V.N. Syrov.** EXPERIMENTAL PHARMACOTHERAPY WITH FLAVONOID-CONTAINING PREPARATIONS OF LIVER DAMAGE CAUSED BY INDOMETACIN
- 12.50–13.00 **Ya.K. Nazirova.** DEVELOPMENT OF TECHNOLOGY FOR OBTAINING TINCTURE PERIWINKLE PINK
- 13.00–14.00 **Lunch**
- 14.00–15.00 **POSTER PRESENTATIONS**

ORAL PRESENTATIONS

Chairmen: Prof. Dr. K. H. C. Baser

Secretary: Dr. K.A. Eshbakova

- 15.00–15.10 **Mona El-Neketi.** ISOLATION AND MOLECULAR DOCKING OF CYTOTOXIC SECONDARY METABOLITES FROM TWO RED SEA SPONGES OF THE GENUS *DIACARNUS* (**online**)
- 15.10–15.20 **Bo Zhao.** STUDY ON THE DITERPENOID ALKALOIDS FROM *DELPHINIUM NAVICULARE* VAR. *LASIOCARPUM* AND *ACONITUM BARBATUM* VAR. *PUBERULUM*
- 15.20–15.30 **F.M. Tursunkhodjaeva.** PAIN RELIEVING EFFECT OF 1-(4'-DIMETHYLAMINOPHENYL)-6,7-METHYLENEDIOXY-1,2,3,4-TETRAHYDROISOQUINOLINE HYDROCHLORIDE
- 15.30–15.40 **Z.M. Enikeeva.** STUDY OF THE DRUG DECOGLITZ
- 15.40–15.50 **E.V. Nikitina.** DNA EXTRACTION FROM FRESH AND HERBARIUM SPECIMENS OF SOME RARE SPECIES IN UZBEKISTAN
- 15.50–16.00 **M.I. Nurmatova.** ROLE OF REACTIVE OXYGEN SPECIES FOR STABILITY OF COTTON SPECIES UNDER HYPERTHERMIA
- 16.00–16.10 **R.P. Zakirova.** GETTING THE PRIMARY CALLUS OF *ASTRAGALUS SIEVERSIANUS*
- 16.10–16.20 **K.M. Kuldoshova.** INFLUENCE ABSCISIC ACID ON THE CONTENT REDUCING SUGAR OF COTTON UNDER SALINITY
- 16.20–16.30 **S.D. Ul'masova.** ANTI-ALCOHOLIC EFFECT OF CYTISINE DERIVATIVES AND THEIR COMPOSITIONS WITH SUCCINIC ACID
- 16.30–16.40 **D.R. Kodirova.** GC-MS ANALYSIS AND COMPARISON ON *HAPLOPHYLLUM GRIFFITHINUM*

- 15.40–16.50 **N. Obidova.** ANTI-INFLAMMATORY ACTIVITY OF d-METAL COMPLEXES OF DICLOFENAC AND ETHYLENEDIAMINE
- 16.50–17.00 **M.N. Povydysh.** INVESTIGATION OF THE EFFECT OF EXTRACTS FROM PLANT CELLS CULTURES OF DIOSCOREA DELTOIDEA, TRIBULUS TERRESTRIS AND *PANAX JAPONICUS* ON HYPOXIA, CARBOHYDRATE AND LIPID METABOLISM
- 17.00–17.10 **A.B. Rafikov.** LOCAL ANESTHETIC ACTIVITY AND ACUTE TOXICITY OF TWO DERIVATIVES OF 1-PHENYL-ISOQUINOLINE
- 17.10–17.20 **A.M. Nosov.** USE OF CELL BIOTECHNOLOGIES FOR INDUSTRIAL PRODUCTION OF PLANT RAW MATERIAL FOR PHARMACEUTICAL APPLICATIONS
- 17.20–18.00 CONCLUSION SESSION**

POSTER PRESENTATIONS

1. **T.N. Kaipnazarov,** N.SH. Ramazonov. A NEW TRITERPENE GLYCOSIDE FROM *Astragalus janischewskyi*
2. **A.R. Niyazmetov,** V.I. Vinogradova, S.F. Aripova. ELECTROPHILIC SUBSTITUTION REACTIONS ON THE MOLECULE DUBAMINE
3. **S.A. Sasmakov,** F.B. Eshboev, J.M. Abdurakhmanov, Sh.Sh Khasanov, O.N. Ashirov, Kh. Dolimov, D.R. Mansurov, E.G. Yusupova, Sh.S. Azimova. ANTIBACTERIAL AND ANTIFUNGAL ACTIVITY OF LOCAL PLANTS
4. **D.R. Siddikov,** Kh.M. Bobakulov, D.T. Asilbekova, A.R. Khurramov, S.Z. Nishanbaev, N.D. Abdullaev. VOLATILE COMPONENTS OF *Geranium collinum* ROOTS.
5. **M.R. Umarova,** U.B. Khamidova, E.O. Terenteva, A.R. Niyazmetov, G.Ya. Khashimova, V.I. Vinogradova, Z.S. Khashimova, Sh.S. Azimova. THE CYTOTOXICITY OF NEW 2-ARYLQUINOLINE DERIVATIVES AND THEIR EFFECT ON OXIDATIVE STRESS
6. **I.L. Khikmatullaev,** H.M. Bobakulov, V.U. Khuzhaev, S.F. Aripova. CHEMICAL COMPOSITION OF BENZIINE FRACTION OF LEAVES AND ROOTS EXTRACT OF *Physalis alkekengi*
7. **N.Sh. Azimov,** V.U. Khujayev, S.F. Aripova. DETERMINATION OF THE FLAVONOID CONTENTS IN THE PLANT OF *Phragmites communis*
8. **N.Sh. Azimov,** V.U. Khujayev, S.F. Aripova. DETERMINATION OF THE VITAMIN CONTENTS IN THE PLANT OF *Codonopsis clematidea*
9. **M.M. Makhmudova,** I.D. Bobaev, B.A. Abduraxmonov. ISOLATION AND IDENTIFICATION OF VITASTEROIDS FROM *Physalis angulata* LEAVES
10. **D.B. Kadirova,** S.F. Aripova. THE CONVOLVIN ALKYLATION REACTIONS
11. **D.B. Kadirova,** S.F. Aripova. CONVOLVIN ACYLATION REACTIONS
12. **A.U. Ubaydullaev,** Sh.N. Zhurakulov, V.I. Vinogradova, U.A. Qurbonov, R.Ya. Okmanov. BROMINATION OF QUINOLINE ALKALOID HAPLOPHILIDINE WITH MOLECULAR BROMINE

13. **M.A. Eshonov**, X.A. Rasulova, S.A. Sasmakov, Sh.Sh. Khasanov, U.B. Khamidova, E.O. Terent'eva, Sh.S. Azimova. ALKALOIDS OF *Haplophyllum acutifolium* AND THEIR BIOLOGICAL ACTIVITY
14. D.S. Ismailova, B.Zh. Elmuradov. CHEMOSELECTIVE S-AMIDOALKYLATION OF 5-(P-AMINOPHENYL)-1,3,4-OXADIAZOLE-2-THIONE
15. **U.B. Khamidova**, E.O. Terenteva, M.R. Umarova, Z.S. Khashimova, V.I. Vinogradova, A.Sh. Saidov, G.A. Pyakina, E.M. Lysova, Sh.S. Azimova. STUDY OF THE RELATIVE EFFECTS OF NEW TETRAHYDRO-ISOQUINOLINE DERIVATIVES TO T-LYMPHOBLASTIC LEUKEMIA AND NORMAL CELL CULTURES
16. **U.B. Khamidova**, E.O. Terenteva, M.R. Umarova, S.F. Aripova, Z.S. Khashimova, G.A. Pyakina, E.M. Lysova, Sh.S. Azimova. STUDY OF CYTOTOXICITY OF THE WHOLE *Ph. Communis* EXTRACT AND ITS INDIVIDUAL FRACTIONS
17. **M.A. Yokubova**, Sh.N. Zhurakulov, V.I. Vinogradova. ONE-STEP METHOD FOR THE PRODUCTION OF 1-ARYL-6,7-DIMETHOXY-1,2,3,4-TETRAHYDROISOQUINOLINES
18. **U.Yu. Yusupova**, N.Sh. Ramazonov. PHYTOECDYSTEROIDS FROM *Silene claviformis*
19. **U.Yu. Yusupova**, N.Sh. Ramazonov. PHYTOECDISTEROIDS OF THE PLANT *Silene popovii*
20. **Kh.M. Bobakulov**, D.R. Siddikov, S.Z. Nishanbaev, I.D. Sham'yanov, V.P. Bruskov, N.D. Abdullaev. STUDY OF FORMATION DYNAMICS OF CONFORMATION FORMS OF 5 α -HYDROXY SAWARANIN IN SOLUTION
21. **D.R. Siddiqov**, V.V. Uzbekov, S.Z. Nishanbayev, I.D. Shamyantov. QUALITATIVE AND QUANTITATIVE ANALYSIS OF PHENOLIC COMPOUNDS OF THE EXTRACT OF ABOVE-GROUND PART *GERANIUM COLLINUM* L. BY HPLC
22. **I.D. Sham'yanov**, Kh.M. Bobakulov, R.F. Mukhamatkhanova, D.R. Siddikov, N.D. Abdullaev, H.A. Aisa, Sh.Sh. Sagdullaev. FLAVONOIDS OF THE AERIAL PART OF *ARTEMISIA LEUCODES* OF UZBEKISTAN FLORA
23. **U.Kh. Kurbanov**, E.R. Kurbanova, N.I. Mukarramov. DITERPENE ALKALOIDS FROM *Delphinium ajacis*
24. **A.A. Ziyaev**. SYNTHESIS AND HETEROCYCLIZATION OF 3-PHENACYLTHIO-5-ARYL- (4H) -1,2,4-TRIAZOLES
25. **T.T. Toshmurodov**, A.A. Ziyaev. SYNTHESIS OF NEW (5-ALKYL-SULPHANYL-[1,3,4]THIADIAZOL-2-YL)-(3,4-DIPHENYL-3H-THIAZOL-2-YLIDENE)-AMINES
26. **D.Kh. Akramov**, N.Z. Mamadalieva. A NEW DISACCHARIDE FROM THE AERIAL PARTS OF *L. setulosus*
27. **L.N. Ashurova**, Kh.M. Bobakulov, D.Kh. Akramov, N.SH. Ramazonov. PINITOL FROM THE *Saponaria officinalis*
28. **Kh.I. Khasanova**, K.A. Eshbakova, Q.D. Davranov, B.D. Mamarasulov, K.K. Turgunov, B. Tashkhodzhaev, H.A. Aisa. STUDIES ON THE CHEMICAL CONSTITUENTS AND BIOLOGICAL ACTIVITY OF *Ferula ovina*

29. **F.A. Kodiralieva**, R. K. Rakhmanberdyeva. POLYSACCHARIDES OF ABOVEGROUND AND UNDERGROUND ORGANS OF *Crotalaria sp.*
30. **F.A. Kodiralieva**, R.K. Rakhmanberdyeva. COMPARATIVE ANALYSIS OF THE PHYSICO-CHEMICAL PARAMETERS OF THE POLYSACCHARIDES *Crotalaria alata* AND *Crotalaria sp.*
31. **A.A. Siddikova**, R.K. Rakhmanberdyeva. POLYSACCHARIDES FROM THE AERIAL PARTS *Scutellaria comosa*
32. **B.J. Komilov**, K.A. Eshbakova, Q.D. Davronov, B.D. Mamarasulov. ANTIMICROBIAL ACTIVITY OF *Centaurea* PLANTS
33. **N.M. Yuldasheva**, B.J. Komilov, K.A. Eshbakova, B.D. Mamarasulov. ANTIMICROBIAL ACTIVITY OF THE PLANT *INULA CASPICA*
34. **D.Z. Azizov**, R.K. Rakhmanberdyeva, M.Kh. Malikova. INFLUENCE OF SEASONAL DYNAMICS ON THE CONTENT OF POLYSACCHARIDES IN THE AERIAL PART OF *FERULA KUHISTANICA*
35. **D.Z. Azizov**, R.K. Rakhmanberdyeva, A.S. Shashkov. INVESTIGATION OF STRUCTURE OF THE ARABINOGALACTAN OF *Ferula kuhistanica*
36. **Sh.M. Adizov**, D.Z. Azizov, B.N. Khandamov, M.Kh. Malikova, R.K. Rakhmanberdiyeva. THE OBTAINING CARBOHYDRATE OF ALDIMINES BASED ON ARABINOGALACTAN *Ferula kuhistanica*
37. **D.SH. Azizova**, R.K. Rakhmanberdyeva. WATER-SOLUBLE POLYSACCHARIDE OF CRUTS *CUCUMIS MELO*
38. **A.E. Eshbekov**, M.Kh. Malikova, R.K. Rakhmanberdyeva. ESTABLISHMENT OF THE STRUCTURE OF THE PECTIN SUBSTANCES OF *Phaseolus vulgaris* VALVES
39. **O.Sh. Boymatov**, M.Kh. Malikova. POLYSACCHARIDES OF THE LEAF OF *Physalis angulata*
40. **M.Kh. Malikova**, O.Sh. Boymatov. CARBOHYDRATES OF THE AERIAL PART OF *Vinca erecta*
41. T.A. Hajibaev, **Sh.Q. Azimov**, R.M. Khalilov. SELECTION OF METHOD AND CONDITIONS OF DRYING *Bidentis tripartite*
42. **M.A. Mamatkhanova**, D.T. Asilbekova, R.M. Khalilov, A.U. Mamatkhanov. STUDY OF THE LIPIDS OF WASTE PRODUCTION OF TENESTROL AND KUFESTROL
43. **Sh.A. Ergasheva**, M.A. Mamatkhanova, A.M. Karimov, R.M. Khalilov, E. H. Botirov, A.U. Mamatkhanov. STUDY OF THE EXTRACTION PROCESS OF THE SUM OF FLAVONOIDS FROM THE AERIAL PART OF *Scutellaria comosa*
44. **Sh.A. Ergasheva**, M.A. Mamatkhanova, R.M. Khalilov, A.U. Mamatkhanov. INTENSIFICATION OF THE EXTRACTION PROCESS OF THE AERIAL PART OF *Scutellaria adenostegia*
45. **Sh.R. Nigmanova**, G.B. Sotimov. DETERMINATION OF THE FAT CONTENT OF THE GASOLINE FRACTION FROM THE SURFACE OF THE PLANT *Onopordum acanthium*
46. **K.S. Jauynbayeva**, R.K. Rakhmanberdyeva, M.H. Malikova. POLYSACCHARIDES OF THE LEAF OF *Arctium leiospermum*
47. **N.K. Yuldasheva**, Sh.Kh. Ibotov, S.D. Gusakova. LIPIDS FROM SEED OF *Atriplex tatarica*
48. **N.K. Yuldasheva**, Sh.Kh. Ibotov, S.D. Gusakova, S.G. Sherimbetov. LIPIDS FROM SEED OF *Climacoptera aralensis*

49. **Sh.Kh. Ibotov**, N.K. Yuldasheva, S.D. Gusakova, S.G. Sherimbetov. LIPID FROM LEAVES OF *LIMONIUM GMELINII*
50. **R.K. Babajanova**, N.K. Yuldasheva, S.D. Gusakova. LIPIDS FROM FRUIT AND PERICARP OF *Xanthium strumarium*
51. **N.B. Begmatov**, Kh.M. Bobakulov, N.D. Abdullaev, Sh.Sh. Sagdullaev, H.A. Aisa. STUDY ON ETHANOLIC EXTRACT OF *Artemisia namanganica*
52. **G.Kh. Tilovova**, B.A. Abdurakhmanov, G.B. Sotimov. MATHEMATICAL PLANNING OF THE PROCESS EXTRACTION OF THE AMOUNT OF FLAVONOIDS FROM THE FRUIT OF *Ziziphus jujuba MILL*
53. **B.A. Abdurakhmanov**, K.A. Gulomova, R.M. Khalilov, F.Kh. Eshmatov. DRYING THICK EXTRACT FROM THE *Corn roller*
54. **B.A. Abdurakhmanov**, Z.N. Nazarova, G.B. Sotimov, A.U. Mamathanov. STUDY OF PROCESS EXTRACTION OF THE FLAVONOID FROM AERIAL PART OF *Urtica dioica*
55. **N.A. Adilova**, Sh.Kh. Rakhimova, L.G. Mezhlumyan. TRYPSIN INHIBITORS FROM *Amaranth* SEEDS CULTIVATED IN UZBEKISTAN
56. **E.R. Kurbanova**, R.P. Zakirova. INFLUENCE ON PLANT SEEDS SIMILARITY *Astragalus babatagi* AND *A. Sieversianus* DIFFERENT METHODS OF PRE-SEEDING TREATMENT
57. **D.E. Dusmatova**, Kh.M. Bobakulov, R.F. Mukhamatkhanova, I.D. Sham'yanov, N.D. Abdullaev, S.A. Sasmakov, S. Gaynazarova, Sh.S. Azimova. NONPOLAR COMPONENTS OF *INULA HELENIUM* ROOTS OF UZBEKISTAN FLORA AND THEIR BIOLOGICAL ACTIVITY
58. **D.E. Dusmatova**, R.F. Mukhamatkhanova, Kh.M. Bobakulov, I.D. Sham'yanov, N.D. Abdullaev, S.A. Sasmakov, M.J. Ortiqova, Sh.S. Azimova. VOLATILE COMPOUNDS OF *INULA GRANDIS* ROOTS OF UZBEKISTAN FLORA AND THEIR BIOLOGICAL ACTIVITY
59. **J.I. Islamova**, D.E. Dusmatova, R.F. Mukhamatkhanova, I.D. Sham'yanov, V. N. Syrov. ANTIHELMINTIC ACTIVITY OF SESQUITERPENE LACTONES *INULA GRANDIS*
60. **Kh. T. Saydullaeva**, N. Kh. Yakubova, R. S. Esanov, Kh. A. Yuldashev, M. B. Gafurov. WATER-SOLUBLE SUPRAMOLECULAR COMPLEXES OF CERTAIN PHYTOHORMONES
61. **N.Kh. Yakubova**, Kh.T. Saydullayeva, R.S. Esanov, K.Zh. Rezhepov, M.B. Gafurov. SYNTHESIS OF NEW DIAZOIMINO DERIVATIVES OF GOSSYPOL WITH CERTAIN AMINES
62. **D.E. Dusmatova**, Kh.M. Bobakulov, K.K. Turgunov, R.F. Mukhamatkhanova, I.D. Sham'yanov, B. Tashkhodzhaev, N.D. Abdullaev. SPATIAL STRUCTURE OF EVDESMANOLIDE 2 α -HYDROXY-5,7,8 α (H)-EUDESMA-4(15),11(13)-DIENE-8,12-OLIDA FROM *Inula britannica*
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