



Mendeleev 2021

XII International Conference on Chemistry
for Young Scientists

CONFERENCE PROGRAM



St Petersburg
University

**XII International Conference on Chemistry
for Young Scientists “MENDELEEV 2021”**

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Science &
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Professor, St. Petersburg State University

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Anastasia Babushkina, St. Petersburg State University

Andrey Firsov, St. Petersburg State University

Elena Silyavka, St. Petersburg State University

Elena Shutova, St. Petersburg State University

PLENARY SPEAKERS



Prof. Peter Lieberzeit

Full Professor and Head of the Department of Physical Chemistry, University of Vienna, Vienna, Austria

«MOLECULARLY IMPRINTED POLYMERS IN RAPID ANALYSIS: CHANCES AND CHALLENGES»

Dr. Timur Madzhidov

Senior Researcher, Chemoinformatics and Molecular Modelling Lab; Associate Professor, Chair of Organic Chemistry, A.M. Butlerov Institute of Chemistry, Kazan Federal University, Kazan, Russia

«ARTIFICIAL INTELLIGENCE IN SYNTHETIC CHEMISTRY: COMPUTER MEETS SYNTHESIS»



Prof. Yulia Gorbunova

Corresponding Member RAS, Professor, Institute of General and Inorganic Chemistry N.S. Kurnakov Russian Academy of Sciences, Moscow, Russia

«TETRAPYRROLIC COORDINATION COMPOUNDS – THE BASIS OF LIFE AND NEW MATERIALS»



Prof. Karl Mandel

Professor for Inorganic Chemistry, Friedrich-Alexander University of Erlangen-Nürnberg, Germany and Head of Particle Technology, Fraunhofer ISC, Germany

«NANO 2.0: SUPRAPARTICLES - AND HOW THESE MAKE MATERIALS SMART AND CONTRIBUTE TO SUSTAINABILITY»

Prof. Igor Alabugin

Full Professor, Florida State University, Tallahassee, USA

«FROM ALKYNE ORIGAMI TO ELECTRON UPCONVERSION: RADICAL APPROACHES TO NEW POLYAROMATICS»



Prof. Eugenia Kumacheva

Professor of Chemistry, Department of Chemistry, University of Toronto, Canada

«FROM COLLOIDAL MOLECULES TO NANO-POLYMERS: LESSONS FROM POLYMER CHEMISTRY AND PHYSICS»



KEYNOTE SPEAKERS



Mr. Andreas Röckert

PhD student at the Department of Chemistry – Ångström Laboratory, Uppsala University, Uppsala, Sweden

«MODELLING SURFACE PROCESSES»

Prof. Alexey Bobrovsky

Professor of RAS, Principal Scientific Researcher of Chemistry Department; Moscow State University, Moscow, Russia

«PHOTOCONTROLLABLE PHOTONIC CRYSTALS
BASED ON POROUS SILICON»



Prof. Sergey Adonin

Habitated Professor Leading Researcher of the Institute of Organic Chemistry SB RAS, Novosibirsk, Russia

«POLYHALOGEN-HALOMETALATES OF 15 AND 16
GROUP ELEMENTS»

Prof. Julien Bachmann

Full Professor, Friedrich-Alexander University of Erlangen-Nürnberg (Erlangen, Germany) and Saint Petersburg State University (St. Petersburg, Russia)

«INTERFACE ENGINEERING IN EXTREMELY THIN
ABSORBER SOLAR CELLS»





Dr. Yuri Kuzin

Research fellow at the Analytical Chemistry Department, Kazan Federal University, Russia

«NEW PHENOTHIAZINE DERIVATIVES AS REDOX MEDIATORS: KINETICS OF ELECTRODE REACTION, ELECTROPOLYMERIZATION AND ANALYTICAL APPLICATIONS»

Prof. Hiroyuki Nakamura

Professor, Institute of Innovative Research, Tokyo Institute of Technology, Japan

«TYROSINE RESIDUE-SPECIFIC CHEMICAL MODIFICATION AND ITS APPLICATION»



Prof. Jef K. De Brabander

Full Professor, Julie and Louis Beecherl Jr. Chair in Medical Science Department of Biochemistry and Simmons Comprehensive Cancer Centr, The University of Texas Southwestern Medical Center at Dallas, USA

«DISCOVERY, TARGET IDENTIFICATION AND VALIDATION OF SMALL MOLECULES THAT AFFECT CELL PROLIFERATION»



Prof. Robert A. Evarestov

Professor, St. Petersburg State University, St. Petersburg, Russia

«FIRST PRINCIPLES STUDY OF HELICAL NANOSTRUCTURES: A CASE OF NANOHELICENES»





PARTICIPANTS OF ROUNDTABLE DISCUSSION



Prof. Marisa C. Kozlowski

Department of Chemistry, University of Pennsylvania, Philadelphia

Guest of honor

Editor-in-Chief ACS Organic Letters Journal

Dr. Olga Bakulina

Associate Professor, Institute of Chemistry, St. Petersburg State University

Moderator



Dr. Tatyana Sazanova

*Associate Professor, Nizhny Novgorod State Technical University
n.a. R.E. Alekseev*

Science Team Member of the EYCN

SCIENTIFIC PROGRAM

6th September 2021

University embankment, 7-9-11, lit. A, 2046 Assembly Hall

9:00 - 10:30	Registration
10:30 - 11:00	Opening Ceremony / The Word for the Gazprom Neft - General Sponsor Speech / Awarding Ceremony of Prof. Igor Alabugin as the Honorary Professor of Chemistry of St. Petersburg University
11:00 - 11:40	Professor Igor Alabugin
11:40 - 12:10	Coffee Break
12:10 - 12:50	Professor Yulia Gorbunova
12:50 - 13:30	Professor Karl Mandel (<i>online</i>)
13:30 - 14:50	Time for Lunch
14:50 - 15:30	Professor Vladimir Gevorgyan (Symposium DIAZO 2021 Plenary Lecture, <i>online</i>)
15:30 - 16:10	Associate Professor Timur Madzhidov
16:10 - 16:50	Professor Eugenia Kumacheva (<i>online</i>)
17:00 - 20:00	St. Petersburg Sightseeing Tour

7th September 2021

*St. Petersburg**

	ANALYTICAL CHEMISTRY	COMPUTER MODELLING AND CHEMINFORMATICS	NANOCHEMISTRY AND NANOMATERIALS	ORGANIC AND BIOMEDICAL CHEMISTRY	INORGANIC AND ORGANOMETALLIC CHEMISTRY	POLYMER SCIENCE
9:00 - 10:00	Registration					
10:00 - 11:35	Oral Presentation					
11:35 - 11:50	Coffee Break					



ANALYTICAL
CHEMISTRY

COMPUTER
MODELLING AND
CHEMINFORMATICS

NANOCHEMISTRY
AND
NANOMATERIALS

ORGANIC AND
BIOMEDICAL
CHEMISTRY

INORGANIC AND
ORGANOMETALLIC
CHEMISTRY

POLYMER
SCIENCE

11:50 -
13:05

Oral
Presen-
tation

Poster
Session
(online)

Oral Presentation

13:05 -
14:35

Time for Lunch

14:35 -
15:55

Oral Presentation

15:55 -
18:00

Welcome Coffee

8th September 2021

*St. Petersburg**

ANALYTICAL
CHEMISTRY

COMPUTER
MODELLING AND
CHEMINFORMATICS

NANOCHEMISTRY
AND
NANOMATERIALS

ORGANIC AND
BIOMEDICAL
CHEMISTRY

INORGANIC AND
ORGANOMETALLIC
CHEMISTRY

POLYMER
SCIENCE

10:00 -
11:15

Oral Presentation

11:15 -
11:30

Coffee Break

11:30 -
12:45

Poster
Session
(online)

Oral Presentation

Poster session (online)

Oral
Presen-
tation

12:45 -
14:30

Time for Lunch

14:30 -
16:00

The Round Table "1. Women in Science; 2. How to Get Published in Good ACS Journals?"

16:00 -
16:20

Coffee Break

16:20 -
18:20

Session "Science with a Smile". Stand-Up Competition

9th September 2021

St. Petersburg*

ANALYTICAL
CHEMISTRY

COMPUTER
MODELLING AND
CHEMINFORMATICS

NANOCHEMISTRY
AND
NANOMATERIALS

ORGANIC AND
BIOMEDICAL
CHEMISTRY

INORGANIC AND
ORGANOMETALLIC
CHEMISTRY

POLYMER
SCIENCE

10:00 -
11:15

Oral Presentation

11:15 -
11:35

Coffee Break

11:35 -
13:00

Poster
Session
(online)

Oral
Presen-
tation

Poster
Session
(online)

Oral Presentation

Poster
Session
(online)

13:00 -
14:30

Time for Lunch

14:30 -
16:05

Oral Presentation

Poster
Session
(online)

16:05 -
16:40

Coffee Break

16:40 -
18:20

Sponsors' Presentations and Networking Session

10th September 2021

University embankment, 7-9-11, lit. A, 2046 Assembly Hall

11:00 - 11:40

Professor Peter Lieberzeit

11:40 - 12:00

Free Time

12:00 - 13:00

Best Speakers Awarding Ceremony,
Opening Ceremony of Eurochem lab,
Closing Ceremony of Mendeleev 2021 and DIAZO 2021

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Volkhovsky lane, 3, lit. A, room 403 – **ANALYTICAL CHEMISTRY**

University embankment, 7-9-11, lit. B, room 215a – **COMPUTER MODELING AND CHEMINFORMATICS**

Mendeleevskaya line, 5, lit. A, 45 Lecture hall – **INORGANIC AND ORGANOMETALLIC CHEMISTRY**

University embankment, 7-9-11, lit. A, 2046 Assembly Hall – **NANOCHEMISTRY AND NANOMATERIALS**

Mendeleevskaya line, 5, lit. A, room 24 – **ORGANIC AND BIOMEDICAL CHEMISTRY**

University embankment, 7-9-11, lit. B, room 198 – **POLYMER SCIENCE**

Volkhovsky lane, 3, lit. A, room 309 – **The Round Table "1. Women in Science; 2. How to Get Published in Good ACS Journals?"**

Volkhovsky lane, 3, lit. A, room 403 – **Session "Science with a Smile". Stand-Up Competition**

Volkhovsky lane, 3, lit. A, room 403 – **Sponsors' Presentations and Networking Session**



ANALITICAL CHEMISRTY

Volkhovsky lane, 3, lit. A, room 403

CHAIRMAN: Prof. Dmitry Kirsanov, Institute of Chemistry, SPbU

SECRETARY: Dr. Maria Khaydukova, Institute of Chemistry, SPbU

ORAL REPORTS

Tuesday, 7th September

10:05 - 10:20	<u>Zarochintsev A.A., Shavokshina V.A., Andreeva K.D., Karyakin A.A., Komkova M. A.</u> PRUSSIAN BLUE BASED NANOZYMES: CATALYTIC PROPERTIES AND BIOANALYTICAL APPLICATIONS
10:20 - 10:35	<u>Kovalenko A.A., Kazartsev I.A., Sharoyko V.V.</u> PROTOCOL DESIGN FOR DNA APTAMER SELECTION TO NIVALENOL – A DANGEROUS MYCOTOXIN IN FOOD AND FODDER INDUSTRY
10:35 - 10:50	<u>Furletov A.A., Apyari V.V., Garshev A.V., Dmitrienko S.G., Zolotov Yu.A.</u> NEW APPLICATIONS OF LABEL-FREE SILVER TRIANGULAR NANOPATES FOR DETERMINATION OF BIOLOGICALLY ACTIVE SUBSTANCES
10:50 - 11:05	<u>Zhupanova A.S., Ziyatdinova G.K.</u> SIMULTANEOUS VOLTAMMETRIC QUANTIFICATION OF NATURAL PHENOLIC ANTIOXIDANTS USING ELECTRODES MODIFIED WITH ELECTROPOLYMERIZED DYES
11:05 - 11:20	<u>Kravchenko A.V., Kolobova E.A., Kartsova L.A.</u> APPLICATIONS OF MODIFIERS BASED ON IMIDAZOLIUM CATION TO ELECTROPHORETIC SEPARATION OF BYOLOGICALLY ACTIVE COMPOUNDS
11:20 - 11:35	<u>Gorbunova I.A., Sasin M.E., Golyshev D.P., Semenov A.A., Beltukov Y.M., Vasyutinskii O.S.</u> TIME-RESOLVED POLARIZED FLUORESCENCE OF ALCOHOL DEHYDROGENASE-NADH BINARY COMPLEX IN SOLUTION UPON TWO-PHOTON EXCITATION BY FEMTOSECOND LASER PULSES
11:50 - 12:05	<u>Gamzatova R.G., Tataeva S.D., Magomedov K.E.</u> APPLICATION OF VANCOMYCIN TO CREATE ELECTRODICALLY ACTIVE COMPONENT (EAC) ISE MEMBRANES



12:05 - 12:20	<i>Ren Y., Kirsanov D.O.</i> INFLUENCE OF ORTHO-SUBSTITUENTS ON ELECTROCHEMICAL PERFORMANCE OF POTENTIOMETRIC MEMBRANE SENSORS BASED ON DIAMIDES OF DIPICOLINIC ACID
12:20 - 12:35	<i>Pokhvishcheva N.V., Galiullin T.M., Gigiadze E.K., Peshkova M.A.</i> IONIC LIQUIDS IN ION SELECTIVE MEMBRANES AND THEIR USE IN NOVEL REFERENCE ELECTRODES
12:35 - 12:50	<i>Keresten V.M., Mikhelson K.N.</i> THE PARADOX OF THE NON-CONSTANCY OF THE BULK RESISTANCE OF ION-SELECTIVE ELECTRODE MEMBRANES WITHIN THE NERNSTIAN RESPONSE RANGE
12:50 - 13:05	<i>Bondar A.V., Mikhelson K.N.</i> Ca²⁺-SELECTIVE SOLID CONTACT COULOMETRIC SENSORS BASED ON NEUTRAL IONOPHORE
14:35 - 14:50	<i>Belugina R.B., Kirsanov D.O.</i> ELECTRONIC TONGUE AS A TOOL FOR BLADDER CANCER SCREENING: PILOT STUDY
14:50 - 15:05	<i>Boichenko E.S., Panchenko A.V., Kirsanov D.O.</i> USE OF SIMULATED SPECTRAL DATA FOR VALIDATION OF CLASSIFICATION MODELS: TOWARDS RELIABLE RESULTS OF CANCER STUDIES
15:05 - 15:20	<i>Puzhel A.O., Vlasova I.V.</i> APPLICATION OF CHEMOMETRIC ALGORITHMS FOR THE DETERMINATION OF La, Fe, Al IN THE COMPOSITION OF HYDROCARBON CRACKING CATALYSTS
15:20 - 15:35	<i>Aidene S., Semenov. V.G., Kirsanov. D.O, Panchuk. V.V</i> COMPARISON OF DATA PROCESSING METHODS FOR QUANTITATIVE ANALYSIS IN XRF
15:35 - 15:55	<i>Bondarenko A.A., Vlasova Y.S., Polynski M.V., Ananikov V.P.</i> OBTAINING CHEMICAL STRUCTURES FROM ESI-MS SPECTRA OF (PRE)CATALYTIC SYSTEMS WITH AN OPEN-SOURCE PYTHON FRAMEWORK, LINEAR PROGRAMMING, AND QUANTUM CHEMICAL MODELING

Wednesday, 8th September

10:00 - 10:30 KEYNOTE SPEAKER	<i>Kuzin Y.I., Khadieva A.I., Padnya P.L</i> NEW PHENOTHIAZINE DERIVATIVES AS REDOX MEDIATORS: KINETICS OF ELECTRODE REACTION, ELECTROPOLYMERIZATION AND ANALYTICAL APPLICATIONS
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Thursday, 9th September

10:00 - 10:15	<u>Chervonnaya T.A., Musorina T.N., Temerdashev Z.A.</u> THE GAS CHROMATOGRAPHY – MASS SPECTROMETRY DETERMINATION PAHS IN ENVIRONMENTAL OBJECTS USING DISPERSIVE LIQUID-LIQUID MICROEXTRACTION
10:15 - 10:30	<u>Arutyunyan Zh.V., Chervonnaya T.A., Musorina T.N., Temerdashev Z.A.</u> ULTRASOUND-ASSISTED DISPERSIVE LIQUID-LIQUID MICROEXTRACTION COUPLED WITH GC-MS FOR ANALYSIS OF 16 POLYCYCLIC AROMATIC HYDROCARBONS IN SURFACE WATER
10:30 - 10:45	<u>Shakirova F.M., Shishov A.Yu., Bulatov A. V.</u> DETERMINATION OF SULFONAMIDES IN URINE SAMPLES BASED ON SCHIFF BASES FORMATION IN NATURAL DEEP EUTECTIC SOLVENT MEDIA
10:45 - 11:00	<u>Tagirova M.R., Mozhaeva V.A., Kudryavtsev D.S.</u> SURFACE-ENHANCED RAMAN SPECTROSCOPY OF SNAKE VENOM NEUROTOXIN
11:00 - 11:15	<u>Burlachenko A.S.</u> APPLICATION OF ANALYTICAL METHODS FOR STUDYING THE RATE OF THE PROCESS OF BIODEGRADATION OF COCAMIDOPROPYLBETAINE AND THE METABOLOMIC COMPOSITION OF BACTERIAL CELLS OF THE GENUS <i>PSEUDOMONAS</i>
14:30 - 14:45	<u>Genarova T.N., Leshchev S.M.</u> PREPARATION OF LIQUID PRODUCTS OF HEAT TREATMENT OF RUBBER WASTE
14:45 - 15:00	<u>Timoshenko V.V., Ermolenko Y.E., Smirnov I.V.</u> THE STUDY OF THE EXTRACTION OF LONG-LIVED RADIONUCLIDES BY POLYFUNCTIONAL COMPOUNDS IN PERSPECTIVE FLUORINATED DILUENTS
15:00 - 15:15	<u>Kovalev E.P., Shalygin A.S., Prikhod'ko S.A., Adonin N.Y., Martyanov O.N., Kazarian S.G.</u> INTERACTION INVESTIGATION BETWEEN LIGHT HYDROCARBONS AND THE HOMOLOGOUS SERIES OF IONIC LIQUIDS AT HIGH PRESSURE STUDIED IN SITU BY ATR-FTIR SPECTROSCOPY
15:15 - 15:30	<u>Derouiche A., Zenkevich I.G</u> FORMATION OF ORGANIC COMPOUNDS HYDRATES IN HPLC CODNDITIONS

15:30 - 15:45

Chuchina V., Gubal A., Lyalkin Y., Solovyev N., Ganeev A.A.
A NEW APPROACH TO DIRECT ANALYSIS OF SINGLE CRYSTALS BASED ON PULSED GLOW DISCHARGE MASS SPECTROMETRY

FLASH-ORAL REPORTS

Wednesday, 8th September

10:30 - 10:35

Zagoskin M.A.
CHEMICAL ANALYSIS OF HOW SOIL MICROBIOME INFLUENCE ON MEDICAL PLANTS

10:35 - 10:40

Gazizullina E.R., Brusnitsyn D.V., Medyantseva E.P.
DETERMINATION OF TRICYCLIC ANTIDEPRESSANTS BY IMMUNOSENSORS BASED ON HYBRID NANOSTRUCTURES IN THE SEQUENTIAL INJECTION ANALYSIS MODE

10:40 - 10:45

Fomicheva M.A., Kartsova A.A., Deev V.A.
HPLC AND HPLC-DETERMINATION OF POLYPHENOL-TYPE ANTIOXIDANTS IN GREEN TEA SAMPLES. CHARACTERISTIC PROFILES OF OBJECTS WITH A COMPLEX MATRIX

10:45 - 10:50

Deev V.A., Bessonova E.A., Kartsova L.A.
OBTAINING CHARACTERISTIC URINE PROFILES OF HEALTHY DONORS AND PATIENTS WITH CANCER BY CHROMATOGRAPHY-MASS SPECTROSCOPY

10:50 - 10:55

Faleva A.V., Kozhevnikov A.Yu., Kosyakov D.S.
IMPROVING APPROACH TO THE STUDY OF THE CHEMICAL STRUCTURE OF LIGNIN MACROMOLECULES BY 2D NMR SPECTROSCOPY

10:55 - 11:00

Baburova P.I., Zemtsova E.G., Arbenin A.Y.
DEVELOPMENT OF TEMPLATE ELECTROCHEMICAL SYNTHESIS OF SILVER MICROPARTICLES ARRAYS ON FLAT MATRIX SURFACES FOR CREATING ELECTROCHEMICAL SENSORS

11:00 - 11:05

Kartashova E.S., Danilov D.A., Polovov I.B.
OXYGEN IN MELTS OF LITHIUM AND BERYLLIUM FLUORIDE SALTS



11:05 - 11:10

Ponkratov A.S., Valeeva R.T., Ponkratova S.A.

QUALITY ASSESSMENT OF BIOLOGICAL GOODNESS OF THE HYDROLISATES

11:10 - 11:15

Yuskina E.A., Makarov N.A., Semenov V.G., Panchuk V.V., Kirsanov D.O.

MULTIPURPOSE DETECTOR BASED ON HIGH FREQUENCY INDUCTOR

POSTER SESSION

Wednesday, 8th September, 11:30-12:45

1-1. *Abakumov A.G., Temerdashev Z.A., Yakuba Y. F.*

INFLUENCE OF BENTONITE CLAYS ON GAS CHROMATOGRAPHIC PROFILE OF RED WINE

1-2. *Abakumova D.D., Temerdshev Z.A., Abakumov P.G.*

USE OF THE METHOD ICP-AES IN COMBINATION WITH THE GENERATION OF HYDRIDES OF TIN AT THE DETERMINATION IN SEAWATER

1-3. *Abdurakhmanova A.K., Tataeva S.D., Magomedov K.E.*

LEVOFLOXACIN-SELECTIVE ELECTRODE

1-4. *Aleksandrov T.S., Savinov S.S.*

STUDY OF MATRIX INFLUENCE ON THE DETERMINATION OF METALS IN ORGANIC SOLVENT SOLUTIONS BY FLAME ATOMIC ABSORPTION SPECTROMETRY

1-5. *Antipova K.S., Makeeva D.V., Kartsova L.A.*

NOVEL ON-LINE CONCENTRATION TECHNIQUES FOR THE SENSITIVE DETERMINATION OF SHORT CHAIN FATTY ACIDS IN THE SERUM SAMPLES

1-6. *Baburova P.I., Zemtsova E.G., Arbenin A.Y.*

DEVELOPMENT OF TEMPLATE ELECTROCHEMICAL SYNTHESIS OF SILVER MICROPARTICLES ARRAYS ON FLAT MATRIX SURFACES FOR CREATING ELECTROCHEMICAL SENSORS

1-7. *Barbayanov K.A., Timofeeva I.I., Bulatov A.V.*

AN EFFECTIVE AND ENVIRONMENT-FRIENDLY MICROEXTRACTION SCHEME FOR THE DETERMINATION OF FLUORQUINOLONES IN MILK

1-8. *Brechalov A.A., Babitova E.S., Timoshenko V.V., Ermolenko Y. E., Smirnov I.V.*

POTENTIOMETRIC METHOD FOR TESTING EXTRACTANTS

1-9. *Deev V.A., Bessonova E.A., Kartsova L.A.*

OBTAINING CHARACTERISTIC URINE PROFILES OF HEALTHY DONORS AND PATIENTS WITH CANCER BY CHROMATOGRAPHY-MASS SPECTROSCOPY

1-10. *Veselov A.A., Dergunova E.S., Shiryayeva Yu.A., Dergunova V.V.*

DEVELOPMENT OF TESTS BASED ON POLYURETHANE FOAM TO DETERMINE THE ACTIVITY OF SOIL UREASE

1-11. *Dmitrieva E.V., Temerdashev A.Z., Azaryan A.A.*

QUANTIFICATION OF KETOSTEROIDS IN HUMAN URINE BY DISPERSIVE LIQUID-LIQUID MICROEXTRACTION AND UHPLC-Q-TOF DETECTION

1-12. *Egorov S.S., Selyutin A.A.*

A DEVELOPMENT OF A METHOD OF FREE FATTY ACIDS ANALYSIS BY A MALDI-MASS-SPECTROMETRY METHOD

1-13. *Faleva A.V., Kozhevnikov A.Yu., Kosyakov D.S.*

IMPROVING APPROACH TO THE STUDY OF THE CHEMICAL STRUCTURE OF LIGNIN MACROMOLECULES BY 2D NMR SPECTROSCOPY

1-14. *Farafonova O.V., Bizina E.V., Ermolaeva T.N.*

THE APPLICATION OF MAGNETIC NANOCOMPOSITES IN PIEZOELECTRIC SENSORS FOR DETERMINING POLLUTANTS IN THE ENVIRONMENT AND FOOD

1-15. *Fomicheva M.A., Kartsova A.A., Deev V.A.*

HPLC AND HPLC-DETERMINATION OF POLYPHENOL-TYPE ANTIOXIDANTS IN GREEN TEA SAMPLES. CHARACTERISTIC PROFILES OF OBJECTS WITH A COMPLEX MATRIX

1-16. *Gashimova E.M., Temerdashev A.Z., Porhanov, V.A., Polyakov I.S., Perunov D.V., Osipova A.K.*

EVALUATION OF THE POSSIBILITY OF TUMOR HISTOLOGICAL TYPE AND LOCALIZATION DIFFERENTIATION IN LUNG CANCER PATIENTS BY EXHALED BREATH COMPOSITION

1-17. *Gazizullina E.R., Brusnitsyn D.V., Medyantseva E.P.*

DETERMINATION OF TRICYCLIC ANTIDEPRESSANTS BY IMMUNOSENSORS BASED ON HYBRID NANOSTRUCTURES IN THE SEQUENTIAL INJECTION ANALYSIS MODE

1-18. *Gryazev I.P., Kalinichev A.V., Peshkova M.A.*

USE OF DIGITAL COLOR ANALYSIS FOR STUDYING PEN INKS AGING UNDER UV IRRADIATION WITH THEIR FURTHER CLASSIFICATION

1-19. *Iakhina D.N., Pashkevich D.S., Belov N.A., Ivanov A.A., Andreev A.A., Shagalov V.V., Kambur P.S., Kapustin V.V., Bryankin D.V.*

DETERMINATION OF FLUORINE COMPOSITION BY GAS CHROMATOGRAPHY

1-20. *Ivanova Yu.A., Kiseleva N.V., Makhotkina D.A.*

EFFICIENCY OF THE SORBENT «FLORISIL» FOR SOLID-PHASE EXTRACTION OF VISCOUS ADDITIVES BASED ON POLYALKYLMETHACRYLATE

1-21. *Karpitskiy D.A., Bessonova E.A., Kartsova L.A.*

DEVELOPMENT OF APPROACHES FOR OBTAINING THE CHROMATOGRAPHIC PROFILES OF POLYPHENOLS AND AMINOACIDS OF BIOTECHNOLOGICAL *IRIS SIBIRICA* L. RAW PLANT MATERIAL



1-22. Kartashova E.S., Danilov D.A., Polovov I.B.

OXYGEN IN MELTS OF LITHIUM AND BERYLLIUM FLUORIDE SALTS

1-23. Zagoskin M.A.

CHEMICAL ANALYSIS OF HOW SOIL MICROBIOM INFLUENCE ON MEDICAL PLANTS

1-24. Ponkratov A.S., Valeeva R.T., Ponkratova S.A.

QUALITY ASSESSMENT OF BIOLOGICAL GOODNESS OF THE HYDROLISATES

1-25. Yuskina E.A., Makarov N.A., Semenov V.G., Panchuk V.V., Kirsanov D.O.

MULTIPURPOSE DETECTOR BASED ON HIGH FREQUENCY INDUCTOR

Thursday, 9th September, 11:35-13:00

1-26. Kasper S.V., Vakh Ch.S.

SUPRAMOLECULAR SOLVENT-BASED MICROEXTRACTION OF ADRENALINE FOR ITS DETERMINATION BY HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY WITH FLUORESCENCE DETECTION

1-27. Kechin A.A., Kravchenko A.V., Kartsova L.A.

FEATURES OF SAMPLE PREPARATION OF BALL PEN INK AFFECTING THE EFFICIENCY OF DYES EXTRACTION FOR THE FOLLOWING ANALYSIS BY HPLC

1-28. Kochetkova M.A., Timofeeva I.I., Bulatov A.V.

A NEW SIMPLE AND ENVIRONMENT-FRIENDLY SCHEME FOR THE FLUOROMETRIC DETERMINATION OF FORMALDEHYDE IN MILK

1-29. Kostina A.S., Temerdashev Z.A., Kolychev I.A., Vasilev A.M., Dobroshtan A.V.

METHANOL CONVERSION TO DIMETHYL ETHER OVER MODIFIED SILICA GEL ADSORBENTS

1-30. Kravchenko A.A., Nikolaeva I.V., Palessky S.V.

APPLICATION OF MICROWAVE DIGESTION FOR ICP-MS ANALYSIS IN SILICA ROCK SAMPLES

1-31. Kravtsov D.V., Ganeev A.A., Gubal A.R., Chuchina V.A.

STUDY OF IONIZATION OF VOLATILE ORGANIC COMPOUNDS IN PULSED GLOW DISCHARGE WITH TIME-OF-FLIGHT ION DETECTION

1-32. Lavrentev F.V., Rumyantsev I.S., Ivanov A.S., Nikolaev K.G., Skorb E.V.

ELECTROCHEMICAL METHOD FOR DETECTING BACTERIA USING MACHINE LEARNING

1-33. Magomedov K.E., Tataeva S.D., Magomedova V.S., Zeynalov R.Z.

AZITHROMYCIN-SELECTIVE ELECTRODE

1-34. *Malyshev A.N., Menshikov S.Yu.*

DETERMINATION OF MONATOMIC ALCOHOLS, TURPENTINE AND PINE FLOTATION OIL ON GS-5MS AND SH-STABILWAX-DB CAPILLARY COLUMNS

1-35. *Markova U.O., Shishov A.Y.*

SPECTROPHOTOMETRIC METHOD FOR DETERMINATION OF UREA IN MILK BASED ON MICROEXTRACTION IN DEEP EUTECTIC SOLVENT

1-36. *Melesova M.A., Shishov A.Y.*

MICROEXTRACTION OF SULFONAMIDES FROM FOOD SAMPLES IN DEEP EUTECTIC SOLVENT

1-37. *Misurkina E.K., Semenchuk O.I., Bazankova E.A., Zachernyuk B.A., Solovyova E.N., Roeva N.N.*

QUANTITATIVE ASSESSMENT OF THE ACIDITY IN TONIC AND SOFT DRINKS

1-38. *Moskvichev D.O., Makeeva D.V., Kartsova A.A.*

ELECTROPHORETIC ANALYSIS OF AMINO ACIDS IN CULTURE BROTH USING (2-HYDROXYPROPYL)- β -CYCLODEXTRIN AS A MODIFIER/CHIRAL SELECTOR

1-39. *Nizov E.R., Shishov A.Y.*

MICROEXTRACTION OF MELAMIN FROM DAIRY PRODUCTS IN DEEP EUTECTIC SOLVENT PRIOR TO HPLC-UV ANALYSIS

1-40. *Orlov A.K., Galushin A.A., Karyakin A.A., Komkova M.A.*

BIOELECTROCATALYSIS BY PQQ-GLUCOSE DEHYDROGENASE ENHANCED BY ELECTROPOLYMERIZED AZINES FOR ADVANCED BIOSENSORS

1-41. *Palaeva T.V.*

DETERMINATION OF OXYGEN IN CHLORALUMINATES BY THE REDUCTIVE MELTING METHOD

1-42. *Pantin A.V., Navolotskaya D.V.*

AMPEROMETRIC DETERMINATION OF FERRATE (VI) IN AQUEOUS SOLUTIONS

1-43. *Pavlova K.V., Pochivalov A.S., Bulatov A.V.*

MICROEXTRACTION OF ZEARELENONE FROM FOOD SAMPLES USING DEEP EUTECTIC SOLVENTS

1-44. *Soboleva P.M., Musina K.T., Burmistrova N.A., Monakhova Y.B.*

IR SPECTROSCOPY AND CHEMOMETRICS FOR ANALYSIS OF DOSAGE FORMS FOR TOPICAL APPLICATION

1-45. *Surkova A., Bogomolov A., Bibikova O., Zabarylo U., Artyushenko V., Hocotz T., Legin A., Kirsanov D., Muncan J., Tsenkova R.*

CANCER DIAGNOSIS BY NIR SPECTROSCOPY AND AQUAPHOTOMICS

1-46. *Podolskiy I.I., Mochalova E.S., Temerdashev A.Z.*

INFLUENCE OF OSTARINE AND ECDYSTERONE USAGE ON MALE AND FEMALE STEROID PROFILE



1-47. Vicol C., Cimpoiu C., Duca G.

INVESTIGATION OF INTERACTIONS OF DIHYDROXYFUMARIC ACID WITH DPPH IN DIFFERENT SOLVENTS

1-48. Vinitskaya E.A., Chubukina T.K., Meshcheryakova E.E.

INFLUENCE OF THE EXTRACTION METHOD ON THE COMPONENT COMPOSITION OF THE PHENOLIC NATURE OF WATER-ALCOHOLIC EXTRACTS *ECHINACEA PURPUREA* L.

1-49. Volynkin S.S.

UIO-66 METAL-ORGANIC FRAMEWORK APPLICATION FOR MERCURY SPECIATION USING SOLID PHASE EXTRACTION FOLLOWED BY DIRECT THERMAL RELEASE AND ETA-AAS DETECTION

1-50. Yakupova E.N., Ziyatdinova G.K.

POLY(ELLAGIC ACID)-MODIFIED ELECTRODE FOR THE DIRECT SELECTIVE QUANTIFICATION OF NARINGIN

1-51. Zhdanova M.A., Shishov A.Y.

STUDY OF THE POSSIBILITY OF USING DEEP EUTECTIC SOLVENTS AS A MEDIUM FOR CARRYING OUT A CHEMILUMINESCENT REACTION BASED ON LUMINOL

COMPUTER MODELLING AND CHEMINFORMATICS

University embankment, 7-9-11, lit. B, room 215a

CHAIRMAN: Dr. Alexander Novikov, Institute of Chemistry, SPbU

SECRETARY: Dr. Mikhail Polynski, Institute of Chemistry, SPbU

ORAL REPORTS

Tuesday, 7th September

Introduction, flash Oral presentation presentations, and reports on non-covalent interactions

10:00 - 10:10	<u>Novikov A.S.</u> COMPUTER MODELLING IN MATERIALS SCIENCE, CATALYSIS, AND MEDICINE
10:10 - 10:35 KEYNOTE SPEAKER	<u>Röckert A.</u> MODELLING SURFACE PROCESSES
10:35 - 10:40	<u>Kotov A.V., Vodyankina O.V., Fateev A.V., Tuguldurova V.P.</u> QUANTUM-CHEMICAL ANALYSIS OF THE EFFECT OF WATER AND METHANOL MOLECULES ON THE KINETICS OF 2-METHYLIMIDAZOLE FORMATION
10:40 - 10:45	<u>Alkhimova L.E., Babashkina M.G., Safin D.A.</u> A FAMILY OF ETHYL N-SALICYLIDENEGLYCINATE DYES STABILIZED BY INTRAMOLECULAR HYDROGEN BONDING: PHOTOPHYSICAL PROPERTIES AND COMPUTATIONAL STUDY
10:45 - 10:50	<u>Shirokova E.A., Razuvaev A.G., Ignatov S.K.</u> WATER CLUSTERS (H₂O)_n (n = 2–6) IN GAS PHASE: AN EFFECT OF ORIENTATIONAL ISOMERISM ON THEIR THERMODYNAMIC FUNCTIONS AND CONCENTRATIONS
10:50 - 10:55	<u>Taldaev A.Kh., Terekhov R.P., Selivanova I.A.</u> ANTIMICROBIAL ACTIVITY OF DIHYDROQUERCETIN AGAINST <i>E.COLI</i>
10:55 - 11:10	<u>Soloviev A.V., Ermilov A. Y., Morozov Y.N., Shabatina T.I.</u> QUANTUM CHEMICAL MODELLING OF DIOXIDINE DIMERS
11:10 - 11:25	<u>Shitov D.A., Tupikina E.Yu.</u> AB INITIO INVESTIGATION OF THE FORMAMIDE HOMODIMERS ELECTRONIC STRUCTURE: FROM MULTIPLE HYDROGEN BONDS TO ADAPTIVE MATERIALS



11:25 - 11:40

Sobalev S.A., Matveychuk Y.V., Bartashevich E.V

QUANTUM ELECTRONIC PRESSURE AS THE INDICATOR OF HALOGEN AND PNICTOGEN BONDS IN MOLECULAR CRYSTALS

Cheminformatics, machine learning in chemistry

14:35 - 14:50

Fatykhova A.A., Nougmanov R.I., Mukhametgaleev R.N., Madzhidov T.I., Varnek A.

PREDICTION OF SYNTHESIS PATH OF CHEMICAL COMPOUND AND ITS ANALOGUES

14:50 - 15:05

Rakhimbekova A., Zankov D.V., Nugmanov R.I., Madzhidov T.I., Baskin I.I., Varnek A.A.

CONJUGATED QUANTITATIVE STRUCTURE-PROPERTY RELATIONSHIP MODELS

15:05 - 15:20

Afonina V.A., Madzhidov T.I., Varnek A.

LIKELIHOOD RANKING APPROACH FOR OPTIMAL CONDITIONS' PREDICTION OF HYDROGENATION REACTIONS

15:20 - 15:35

Vladimirova N., Kirsanov D.O.

FEASIBILITY STUDY OF QSPR AS A TOOL FOR $\text{HCO}_3^-/\text{Cl}^-$ POTENTIOMETRIC SELECTIVITY PREDICTION

15:35 - 15:50

Razlivina J.S., Serov N.S., Vinogradov V.V.

ML-ASSISTED PREDICTION OF ENZYME-MIMIKING NANOMATERIALS

Wednesday, 8th September

Computations in materials and inorganic chemistry I

10:00 - 10:15

Rozhkov A.V., Ignatov S.K., Suleimanov E.V.

EFFECT OF EXTERNAL ELECTRIC FIELD ON THE DIFFUSION OF OXYGEN IONS AND VACANCIES IN YTTRIA-STABILIZED ZIRCONIA. MOLECULAR DYNAMICS STUDY

10:15 - 10:30

Dmitriev A.A., Gritsan N.P.

COMPUTATIONAL STUDY OF THE PROPERTIES OF NOVEL TRIMETHYLACETATE 1D-POLYMERS WITH $\text{Dy}^{\text{III}}\text{Cd}^{\text{II}}_2$ AND $\text{Yb}^{\text{III}}\text{Cd}^{\text{II}}_2$ CORES

10:30 - 10:45

Korostelev V.O., Tupikina E.Y.

THE STABILITY OF STILBINIC AND BISMUTHINIC ACID COMPARED TO ARSINIC ACIDS ASSISTED BY HYDROGEN BONDING: AB INITIO INVESTIGATION

10:45 - 11:00 *Begunovich L.V., Kuklin A.V., Baryshnikov G.V., Valiev R.R., Ågren H.*
**2D ORGANOMETALLIC POLYMERS BASED ON TETRAOXA[8]
CIRCULENE AND S-METAL ATOMS**

11:00 - 11:15 *Kuklin A.V., Yamada Y.*
**ALTERATION OF SUPERATOM MOLECULAR ORBITALS OF
Li@C60 DEPOSITED ON Cu(111) SURFACE**

Computations in materials and inorganic chemistry II

11:30 - 11:45 *Alexandrov E.V.*
**TOPOLOGICAL METHODS FOR ANALYSIS OF POROUS
MATERIALS: PORES, BREATHING, CONDUCTIVITY,
TRANSFORMATIONS**

11:45 - 12:00 *Morkhova E.A., Kabanov A.A., Leisegang T., Blatov V.A*
**THEORETICAL EVALUATION OF NEW PROMISING SOLID
ION CONDUCTORS FOR MULTIVALENT METAL-ION
BATTERIES**

12:00 - 12:15 *Pavlov S.V., Danilova V.V., Fedorov M.V., Kislenko S.A.*
**EFFECT OF IONIC LIQUID ADDITION IN THE ELECTROLYTE
ON SOLVATION PROCESSES IN LITHIUM-AIR BATTERIES**

12:15 - 12:30 *Serditsev A.V., Medvedeva N.I.*
**ELECTRONIC STRUCTURE, STABILITY, SODIUM
DIFFUSION AND EXTRACTION IN LOW-SYMMETRY IONIC
CONDUCTORS NaMFe(MoO₄)₃ (M=Mg, Ni)**

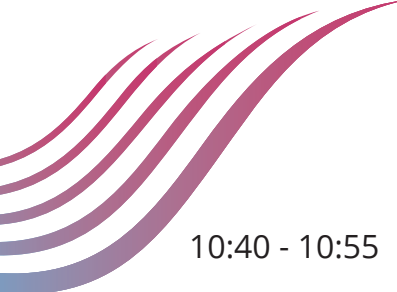
12:30 - 12:45 *Krasnov A.G., Shein I.R., Koroleva M.S., Vlasov.M.I., Piir I.V.*
**NEW Bi₂Ti₂O₇-BASED VISIBLE LIGHT ACTIVE
PHOTOCATALYSTS: AB INITIO SCREENING AND
EXPERIMENTAL SYNTHESIS**

Thursday, 9th September

Computations in organic chemistry: aromatic systems

10:00 - 10:25 ***Evarestov R.A.,** Porsev V.V.*
**KEYNOTE
SPEAKER** **FIRST PRINCIPLES STUDY OF HELICAL NANOSTRUCTURES:
A CASE OF NANOHELICENES**

10:25 - 10:40 *Melnikov I.N., Kiselev V.G., Dalinger I.L., Muravyev N.V.,
Pivkina A.N.*
**THERMAL STABILITY OF NOVEL ENERGETIC
6,8-DINITROTRIAZOLO[1,5-A]PYRIDINES FROM QUANTUM
CHEMISTRY AND THERMAL ANALYSIS**



10:40 - 10:55

Sizov G.N., Babaev E.V.

THE MESOIONIC PAIR CONCEPT

10:55 - 11:10

Kozlenko A.S., Koval V.V., Pugachev A.D., Lukyanova M.B.,
Ozhogin I.V., Bykusov V.V., Lukyanov B.S.

**QUANTUM CHEMICAL STUDY OF CORRELATIONS
BETWEEN BONDS' NATURE, MEROCYANINE STABILITY
AND POSITIONS OF SUBSTITUENTS FOR SPIROPYRANS
CONTAINING CONJUGATED CATIONIC 3H-INDOLIUM
FRAGMENT**

Computations in bioorganic chemistry. QM-MD and forcefield methods

11:35 - 11:50

Karpov V.V., Tupikina E.Yu

**AB INITIO SIMULATION OF THE GLUTATHIONE
PEROXIDASE-1 CATALYTIC CYCLE USING SELENOCYSTEINE
AS A MODEL SYSTEM**

11:50 - 12:05

Savintseva L.A., Ignatov S.K.

**CHARGE TRANSFER SIMULATION IN BIOMIMETIC
OLIGOMERS FOR THE CREATON OF NEUROMORPHIC
ORGANIC MATERIALS**

12:05 - 12:20

Krapivin V.B., Luzhkov V.B

**MOLECULAR DYNAMICS AND DOCKING SIMULATIONS OF
BINDING OF THE THIOUREA DINITROSYL IRON COMPLEX
TO BOVINE SERUM ALBUMIN**

12:20 - 12:35

Borodina O.S., Makarov G.I., Bartashevich E.V., Ovchinnikova,
I.G., Fedorova, O.V., Titova, Y.A.

**METADYNAMICS IN STUDYING THE BIGENELLI REACTION
MECHANISM WITH THE PARTICIPATION OF CHIRAL
INDUCTORS**

12:35 - 12:50

Vlasova Y.S., Bondarenko A.A., Polynski M.V., Ananikov V.P

**STRUCTURE DETERMINATION AND ATOMIC PROPERTIES
OF METAL CLUSTERS IN ESI-MS SPECTRA OF
PRECATALYST SOLUTIONS WITH BOMD, DFT, AND QTAIM**

12:50 - 13:05

Avdoshin A.A., Naumov V.S., Koeppen S., Colombi L.C., Ignatov S.K.

**PARAMETRIZATION OF THE AMBER FORCE FIELD FOR THE
DESCRIPTION OF CHITOSAN-RNA COMPLEXES**

Forcefield methods: continued. Kinetics and thermodynamics

14:30 - 14:45

Kalikin N.N., Budkov Y.A., Kolesnikov A.L., Ivlev D.V.,
Kresyaninov M.A., Kiselev M.G.

**COARSE-GRAINED APPROACHES FOR CALCULATION OF
SPARINGLY SOLUBLE DRUG COMPOUNDS SOLUBILITY IN
scCO₂**



14:45 - 15:00	<i>Yakush E., Kim A.</i> INTERACTION OF NEW ANTITUMOR DRUG DIOXADET WITH LIPID DOUBLE LAYER AS MODEL CELL MEMBRANE
15:00 - 15:15	<i>Lavrinenko A.K., Chernyshov I.Yu., Pidko E.A.</i> THEORETICAL APPROACH TO DEEP EUTECTIC SOLVENTS DEVELOPMENT
15:15 - 15:30	<i>Liubichev D.A., Samarov A.A., Prikhodko I.V.</i> DEEP EUTECTIC SOLVENTS BASED ON CHOLINE CHLORIDE AND POLYOLS AS 'GREEN' EXTRACTANT FOR AZEOTROPIC MIXTURES
15:30 - 15:45	<i>Yurkshtovich Y.N., Blokhin A.V.</i> SUBLIMATION ENTHALPY PREDICTION AND THEORETICAL THERMODYNAMIC STUDY OF SOME MESOIONIC TETRAZOLIUM 5-AMINIDES
15:45 - 16:00	<i>Misikov G.Kh., Toikka M.A., Samarov A.A., Petrov A.V., Toikka A.M.</i> DESCRIBING OF LIQUID-LIQUID EQUILIBRIUM FOR SYSTEMS WITH POSSIBLE ESTERIFICATION REACTION USING VARIOUS MODEL APPROACHES

POSTER SESSION

Tuesday, 7th September, 11:50-13:05

- 2-1. *Steshin I.S., Avdoshin A.A., Ignatov S.K.*
USING SUPERVISED MACHINE LEARNING TO PREDICT THE STRUCTURE AND ENERGIES OF MAGNESIUM NANOCCLUSERS
- 2-2. *Krivoshchapov N.V., Medvedev M.G.*
OPEN-SOURCE ALGORITHM FOR GLOBAL CONFORMATIONAL SEARCH OF CYCLIC MOLECULES AND TRANSITION STATES
- 2-3. *Martynova Y.Z., Khayrullina V.R., Gimadieva A.R., Mustafin A.G.*
URACILS ANALOGS AS POTENTIAL ANTI-TUMOR AGENTS
- 2-4. *Chernysheva A.M., Timoshkin A.Y.*
THE STABILIZATION OF ONLY HYDROGEN-SUBSTITUTED 13/14/15 GROUP ELEMENT CHAINS BY LEWIS ACIDS
- 2-5. *Terashkevich V.A.*
AB INITIO STUDY THE ORIGIN OF Λ – DOUBLING THE FIRST EXCITED $A_2\Pi$ STATE OF CN RADICAL
- 2-6. *Shurygin A.V., Vovna V.I., Korochentsev V.V., Mirochnik A.G.*
OPTICAL PROPERTIES AND ELECTRONIC STRUCTURE OF Eu(III) COMPLEXES WITH HMPA AND TPPO



2-7. *Sattarova A.E., Biglova Yu.N., Mustafin A.G.*

QUANTUM-CHEMICAL MODELING OF ELEMENTARY ACTS OF THE PROCESS OF CYCLOPROPANATION OF FULLERENE BY HALOGENMETHYLKETONES

2-8. *Kabanov A.A., Morkhova E.A., Kabanova N.A., Leisegang T., Blatov V.A.*

BATTERY MATERIALS DATABASE: THE RESULTS OF A STEPWISE THEORETICAL SEARCH FOR NEW SOLID ION CONDUCTORS

2-9. *Tuzov D.A., Nazmutdinov R.R.*

MODELING THE EFFECT OF ORDER AND DISORDER IN METAL ALLOYS ON THE RATE OF HETEROGENEOUS ELECTRON TRANSFER

2-10. *Kutskaya A.M., Polynski M.V.*

CYCLOADDITION REACTION OF BENZYL VINYL ETHER TO NITRILE OXIDES: A COMPARATIVE QUANTUM-CHEMICAL STUDY OF REACTION PATHWAYS

2-11. *Altynov A.A., Bogdanov I.A., Kirgina M.V.*

KINETIC MODELING OF LIGHT HYDROCARBON ZEOFORMING PROCESS

2-12. *Kozina D.O., Porsev V.V.*

QUANTUM CHEMICAL MODELING OF THE ELECTRON-VIBRATIONAL SPECTRA OF AZULENE AND ITS DERIVATIVES

2-13. *Livshits G.D., Ignatov S.K.*

THEORETICAL DESIGN OF MONOLAYERS ON PLATINUM CATALYSTS SURFACE FOR STEREoselective ADSORPTION AND CATALYSIS

2-14. *Zolotovskiy K.A., Petrov A.V., Toikka A.M.*

ANALYSIS OF THE LIMITS OF STABILITY AND SPINODAL DISPOSITION IN LIQUID-LIQUID SYSTEMS

2-15. *Skakunova K.D., Rychkov D.A.*

APPLICATION OF MM AND QM CALCULATIONS TO STUDY THE MOLECULAR AND CRYSTAL STRUCTURES OF BETULIN AND ITS SOLVATES

2-16. *Golosov R.D., Ivanov I.M., Orlova A.B.*

COMPARATIVE ASSESSMENT OF THE RESULTS OF NICOTINE REDOXING WITH ACETYLCHOLINE-BINDING PROTEIN USING AUTODOCK VINA AND IDOCK

2-17. *Senina A.A., Toikka M.A., Samarov A.A.*

THE CALCULATION OF THERMODYNAMIC EQUILIBRIUM CONSTANTS OF SYSTEMS FORMED BY ACETIC ACID ESTERS USING THE UNIFAC MODEL

2-18. *Titova A.A., Tupikina E.Yu.*

APPLICABILITY OF IR SPECTRAL PARAMETERS FOR ESTIMATION OF THE STRENGTH OH...N HYDROGEN BONDS

2-19. *Alatortsev O.A., Artobolevskiy S.V., Makhrov D.E.*

COMPARATIVE ANALYSIS OF NON-COVALENT INTERACTIONS OF H₂O/H₂O₂ IN MULTICOMPONENT ORGANIC CRYSTALS



2-20. *Kotov A.V., Vodyankina O.V., Fateev A.V., Tuguldurova V.P.*

QUANTUM-CHEMICAL ANALYSIS OF THE EFFECT OF WATER AND METHANOL MOLECULES ON THE KINETICS OF 2-METHYLIMIDAZOLE FORMATION

2-21. *Alkhimova L.E., Babashkina M.G., Safin D.A.*

A FAMILY OF ETHYL N-SALICYLIDENEGLYCINATE DYES STABILIZED BY INTRAMOLECULAR HYDROGEN BONDING: PHOTOPHYSICAL PROPERTIES AND COMPUTATIONAL STUDY

2-22. *Shirokova E.A., Razuvaev A.G., Ignatov S.K.*

WATER CLUSTERS (H₂O)_n (n = 2–6) IN GAS PHASE: AN EFFECT OF ORIENTATIONAL ISOMERISM ON THEIR THERMODYNAMIC FUNCTIONS AND CONCENTRATIONS

2-23. *Taldaev A.Kh., Terekhov R.P., Selivanova I.A.*

ANTIMICROBIAL ACTIVITY OF DIHYDROQUERCETIN AGAINST *E.COLI*



INORGANIC AND ORGANOMETALLIC CHEMISTRY

Mendeleevskaya line, 5, lit. A, 45 Lecture hall

CHAIRMAN: Dr. Dmitrii Bolotin, Institute of Chemistry, SPbU

SECRETARIY: Ms. Alexandra Sysoeva, Institute of Chemistry, SPbU

ORAL REPORTS

Tuesday, 7th September

10:00 - 10:20 <i>KEYNOTE SPEAKER</i>	<u>Adonin S.A.</u> POLYHALOGEN-HALOMETALATES OF 15 AND 16 GROUP ELEMENTS
10:20 - 10:35	<u>Gafurov Z.N., Soficheva O.S, Yakhvarov D.G.</u> HYBRID PHOSPHORUS AND NITROGEN-BASED LIGANDS FOR NICKEL CATALYZED ETHYLENE OLIGOMERIZATION
10:35 - 10:50	<u>Belousov M.S., Dubinina T.V</u> NEW TYPE OF PLANAR BINUCLEAR PHTHALOCYANINES SHARING A COMMON CARBAZOLE SPACER: SYNTHESIS, OPTICAL AND ELECTROCHEMICAL PROPERTIES STUDY
10:50 - 11:05	<u>Kharitonov V.B., Loginov D.A.</u> CRUCIAL IMPROVEMENT OF (INDENYL)RHODIUM COMPLEXES CATALYTIC ACTIVITY BY SIMPLE LIGAND MODIFICATION
11:05 - 11:20	<u>Berdyugin S., Kozlova E., Kurenkova A., Gerasimov E., Bukhtiyarov A., Kolesov B., Yushina I., Vasilchenko D, Korenev S.</u> HIGH PERFORMANCE Rh/TiO₂ PHOTOCATALYSTS FOR HYDROGEN EVOLUTION REACTION
11:20 - 11:35	<u>Ivanov D.M.</u> NICKEL(II) AS NUCLEOPHILIC CENTER TOWARD ORGANIC- BOUND IODINE
11:50 - 12:05	<u>Demakov P.A.</u> STRUCTURAL DIVERSITY AND OPTICAL PROPERTIES OF 1,4-DIAZABICYCLOCTANE-N,N'-DIOXIDE-BASED METALORGANIC FRAMEWORKS
12:05 - 12:20	<u>Chernenko A.Yu., Astakhov A.V., Chernyshev V.M.</u> A NEW APPROACH TO THE STABILIZATION OF Pd/NHC COMPLEXES TOWARD DECOMPOSITION IN ALKALINE MEDIA



12:20 - 12:35	<u>Grudova M.V., Tskhovrebov A.G.</u> ARYL- AND HETEROARYL GOLD(I) ISOCYANIDE COMPLEXES: SYNTHESIS VIA BORON-TO-GOLD TRANSMETALLATION, STRUCTURES AND SELF-ASSEMBLY DUE TO AUROPHILIC INTERACTIONS
12:35 - 12:50	<u>Kulikova V.A., Kirkina V.A., Voronova E.D., Filippov O.A., Belkova N.V., Shubina E.S</u> SOLVENT-FREE DEHYDROCOUPLING OF PHENYLSILANES AND ALCOHOLS: KINETIC AND MECHANISTIC STUDY
12:50 - 13:05	<u>Paderina A.V., Abramova E.O.</u> POST-SYNTHETIC ICCLICK MODIFICATIONS OF Pt(II) COMPLEX: UNUSUAL REACTIVITY AND PHOTOPHYSICAL PROPERTIES
14:35 - 14:50	<u>Sakhapov I.F., Gafurov Z.N., Yakhvarov D.G.</u> ELECTROCHEMICAL SYNTHESIS AND REACTIVITY OF ORGANONICKEL SIGMA-COMPLEXES IN C—C AND P—C BOND FORMATION
14:50 - 15:05	<u>Grishina M.M., Matsulevich Z.V., Borisov A.V., Khrustalev V.N., Tskhovrebov A.G.</u> ADDITION OF 2-PYRIDYLSELENYL HALIDES TO UNACTIVATED NITRILES
15:05 - 15:20	<u>Evtushok D.V</u> SYNTHESIS OF OCTAHEDRAL BROMIDE CLUSTER COMPLEXES OF TUNGSTEN FROM ELEMENTARY
15:20 - 15:35	<u>Gurina G.A., Trifonov A.A</u> NEW RARE-EARTH COMPLEXES BEARING EXPANDED-RING NHC CORE PINCER LIGAND

Thursday, 9th September

10:00 - 10:15	<u>Dubinina T.V., Gorbunova E.A., Kosov A.D.</u> SUBSTITUTED BORON SUBPHTHALOCYANINES: SYNTHESIS AND OPTICAL PROPERTIES
10:15 - 10:30	<u>Kolos A.V., Nelyubina Y.V., Perekalin D.S.</u> EXTREMELY BULKY RHODIUM(III) CATALYST WITH CYCLOPENTADIENYL LIGAND ASSEMBLED BY CYCLOTETRAMERIZATION OF TERT-BUTYL-ACETYLENE



10:30 - 10:45	<i>Chakalov E.R., Mulloyarova V.V., Antonov A.S., Tolstoy P.M.</i> OUT-PROTONATION OF DMAN PROTON SPONGE BY PHOSPHINIC ACID
10:45 - 11:00	<i>Eliseeva A.A.</i> BIFURCATED HALOGEN BONDING INVOLVING TWO RHODIUM(I) CENTERS AS AN INTEGRATED XB ACCEPTOR
11:00 - 11:15	<i>Karakovskaya K.I., Vikulova E.S., Chepeleva E.V.</i> IRIDIUM COATINGS FOR METAL MEDICAL IMPLANTS OBTAINED BY MOCVD: FROM VOLATILE PRECURSORS TO BIOCOMPATIBILITY TEST
11:35 - 11:50	<i>Golomolzhina I.V., Tolstikov S.E., Romanenko G.V., Letyagin G.A., Bogomyakov A.S., Ovcharenko V.I.</i> SOPHISTICATED TRANSFORMATIONS OF HETEROSPIN COMPLEX
11:50 - 12:05	<i>Letyagin G.A., Golomolzhina I.V., Tolstikov S.E., Bogomyakov A.S., Romanenko G.V., Ovcharenko V.I.</i> Cu(II)-NITROXIDE COMPLEX MULTISTEP TRANSFORMATION
12:05 - 12:20	<i>Erzunov D.A., Vashurin A.S.</i> SYNTHESIS AND STUDY OF THE SPECTROSCOPIC AND LUMINESCENT PROPERTIES OF DICYANOPHENOXYPTHALOCYANINE COMPLEXES OF DIFFERENT STRUCTURE WITH RARE-EARTH ELEMENTS
12:20 - 12:35	<i>Rogozhin A.F., Ilichev V.A., Bochkarev M.N.</i> NEW BISTHIAZOLEDITHIOLS AND THEIR SODIUM COMPLEXES. SYNTHESIS, STRUCTURE, LUMINESCENCE
12:35 - 12:50	<i>Bolotov V.A., Cheremisina O.V., Ponomareva M.A., Osipov A.S.</i> KINETICS OF THE PROCESS OF SORPTION OF HYDROGEN SULFIDE ON FERROMANGANESE MATERIAL
14:30 - 14:45	<i>Ovsyannikov A.S., Kniazeva M.V., Solovieva S.E., Antipin I.S.</i> CONTROL ON SELF-ORGANISATION IN THE CRYSTALLINE PHASE OF SUPRAMOLECULAR METALORGANIC COMPOUNDS BASED ON (THIA)CALIX[4]ARENE MOLECULAR BUILDING BLOCKS
14:45 - 15:00	<i>Spiridonov K.A., Nikovskiy I.A., Pavlov A.A., Nelyubina Yu.V., Polezhaev A.V.</i> SYNTHETIC APPROACHES TO NEW REDOX-ACTIVE CARBENE LIGANDS

15:00 - 15:15

Mukhacheva A.A.

NEW STORIES ABOUT POLYOXOMETALATES CONTAINING RUTHENIUM

15:15 - 15:30

Dayanova I.R., T.P. Gerasimova, Strelnik I.D., Musina E.I., Karasik A.A.

PYRIDYLETHYL-SUBSTITUTED 1,5-DIAZA-3,7-DIPHOSPHAOCTANES FOR THE SYNTHESIS OF LUMINESCENT COMPLEXES WITH D¹⁰ -METALS

15:30 - 15:45

Petrovskii S.K., Grachova E.V.

LIGHT-SWITCHABLE ORGANOGOLD(I) COMPOUNDS AS MODEL OBJECTS OF NEW MOLECULAR MACHINE ELEMENTS

FLASH-ORAL REPORTS

Wednesday, 8th September

10:00 - 10:05

Klyamer D.D., Sukhikh A.S., Basova T.V.

INFLUENCE OF FLUOROSUBSTITUTION ON THE STRUCTURAL FEATURES AND SENSOR PROPERTIES OF METAL PHTHALOCYANINE THIN FILMS

10:05 - 10:10

Verkhov V.A., Antonov A.S.

UNUSUAL REACTIVITY OF N-TRIMETHYLSILYLATED 4-DIMETHYAMINOPYRIDINES TOWARDS ORGANOLITHIUMS

10:10 - 10:15

Galiev R.R.

COORDINATION COMPOUNDS BASED ON NEW TETRANUCLEAR VANADIUM FRAGMENT {V₄OSe₈I₆}: SYNTHESIS, STRUCTURE AND PROPERTIES

10:15 - 10:20

Shilov R.A., Shakirova J.R.

LUMINESCENT PLATINUM(II) COMPLEXES BASED ON 2,2'-BIPYRIDINES

10:20 - 10:25

Evseev G.S., Vikulova E.S., Sukhikh A.S.

SYNTHESIS AND STRUCTURAL STUDY OF NON-FLUORINATED MAGNESIUM BETA-DIKETONATE COMPLEXES WITH (O[^]N) AND (N[^]N)-DONOR NEUTRAL LIGANDS

10:25 - 10:30

Gorkusha G.V., Ruzanov D.O.

VANADIUM(V) COMPLEXES WITH CARBOHYDRATES AND ALCOHOLS



10:30 - 10:35

Abasheeva, K.D., Demakov, P.A.

STRUCTURE AND SYNTHESIS OF COBALT(II)-ORGANIC FRAMEWORKS WITH 1,4-DIAZABICYCLO[2.2.2]OCTANE N,N'-DIOXIDE BRIDGE

10:35 - 10:40

Shcherbina N.A., Kazakov I.V., Timoshkin A.Y.

STRUCTURAL FEATURES OF COMPLEXES OF LEWIS ACIDS $E(C_6F_5)_3$ ($E = B, Al, Ga, In$) WITH 2-AMINOPYRIDINE

10:40 - 10:45

Teterina A.A., Vikulova E.S., Sukhikh A.S.

VOLATILE Pd(II) COMPLEXES WITH (O,N,N,O)-CHELATING LIGANDS AND THEIR BIMETALLIC DERIVATIVES

10:45 - 10:50

Sosnovsky V.B., Mereshchenko A.S., Vidyakina A.A., Nosov V.G., Zheglov D.A., Ostrosablin A.N., Sysoeva A.A., Zaverukhin S.E

LUMINESCENT METAL-ORGANIC FRAME STRUCTURES BASED ON RARE EARTH TEREPHTHALATES $(Eu_xLu_{1-x})_2(1,4-BDC)_3 \cdot yH_2O$

10:50 - 10:55

Vasileva A.A., Demakov P.A

MULTI-COLORED EMISSION AND LUMINESCENT DETECTION BY A SERIES OF LANTHANIDE METALORGANIC FRAMEWORKS

10:55 - 11:00

Trusova A.B., Nikitin E.A., Latipov E.V.

CYTOPROTECTIVE PROPERTIES OF LANTHANUM CARBOXYLATES CONTAINING FRAGMENT OF 2,6-DI-*TERT*-BUTYLPHENOL

11:00 - 11:05

Zavyalova A.G., Kladko D.V., Vinogradov V.V.

CRYSTALLIZATION OF MOFS IN MAGNETIC LEVITATION

11:05 - 11:10

Yakubenko A.A., Antonov A.S.

LITHIATION OF 2,4,5,7-TETRABROMO-1,8-BIS(DIMETHYLAMINO)NAPHTHALENE

11:10 - 11:15

Bonegardt D.V., Klyamer D.D., Sukhikh A.S., Basova T.V.

INVESTIGATION OF THE EFFECT OF HALOGEN SUBSTITUTION ON THE STRUCTURAL FEATURES AND SENSOR PROPERTIES OF METAL PHTHALOCYANINES

POSTER SESSION

Wednesday, 8th September, 11:30-12:45

3-1. *Aksenova Iu.V., Kuznetsova R.T., Antina E.V., Berezin M.B.*

SPECTROSCOPY STUDY OF ORGANOMETALLIC COMPOUNDS BASED ON THE DIPYRRROMETHENES WITH P-AND D-ELEMENTS

3-2. *Alexandrov A.A., Bragina A.G., Tsygankova M.V., Fedorov P.P., Ivanov V.K.*

LOW-TEMPERATURE PHASE FORMATION IN THE BaF₂-LaF₃ SYSTEM

3-3. *Alferova D.A., Cheremisina O.V.*

EFFICIENT SEPARATION OF RARE EARTH ELEMENTS AND TITANIUM AT THE RE-EXTRACTION STAGE

3-4. *Aliyarova I.S., Ivanov D.M.*

GOLD(I) NUCLEOPHILICITY TOWARD HALOMETHANES

3-5. *Arsenov M.A., Loginov D.A.*

EXPANSION OF SUBSTRATE SCOPE FOR SYNTHESIS OF POLYCYCLIC AROMATIC HYDROCARBONS VIA C-H ACTIVATION REACTIONS

3-6. *Arsenyeva K.V., Piskunov A.V., Chegerev M.G.*

REACTIVITY OF LOW-VALENT DERIVATIVES OF GROUP 14 ELEMENTS BEARING O-AMIDOPHENOLATE LIGANDS

3-7. *Astaf'eva T.V., Poddelsky A.I., Cherkasov V.K.*

CATECHOLATE ANTIMONY COMPLEXES ON IMINE-BASED CATECHOLS AND O-BENZOQUINONES

3-8. *Babitova E.S., Skripkin M.Yu.*

TITRIMETRIC DETERMINATION OF METAL MASS FRACTION IN METAL-ORGANIC FRAMEWORKS COMPOUNDS

3-9. *Baravikov D.E., Lutsenko I.A., Kiskin M.A., Becker O.B., Eremenko I.L.*

IN SEARCH OF BIOLOGICALLY ACTIVE COMPOUNDS WITH Zn²⁺ IONS

3-10. *Bardakov V.G., Yakubenko A.A., Antonov A.S.*

SYNTHESIS AND REACTIVITY OF 1,8-BIS(DIMETHYLAMINO)NAPHTHALENYL BORONIC ACIDS

3-11. *Belikova A.A., Erzunov D.A., Vashurin A.S.*

SYNTHESIS BALL-TYPE η CLAM-SHELL MAGNESIUM PHTHALOSYANINES WITH OXY-BENZENE FRAGMENTS AS A μ BRIDGE SUBSTITUTES AND STUDY OF FLUORESCENCE PROPERTIES

3-12. *Berseneva M.A., Semenishchev, V.S., Kirillov E.V., Gordeev E.V.*

STUDY ON DEPOSITION OF A LAYER OF MANGANESE DIOXIDE ON THE SURFACE OF THE MACROPOROUS SORBENT FOR RADIUM SORPTION

3-13. *Berezova E.A., Danilushkina E.G.*

INVESTIGATION OF PHASE EQUILIBRIA IN A MUTUAL SYSTEM OF POTASSIUM AND BARIUM BROMIDES AND TUNGSTATES

3-14. *Kalle P., Kiseleva M.A., Tatarin S.V., Bezzubov S.I.*

CYCLOMETALATED IRIIDIUM(III) COMPLEXES WITH PERIMIDINE-BASED LIGANDS

3-15. *Bogdanova E.V., Stogniy M.Yu., Sivaev I.B., Bregadze V.I.*

SYNTHESIS AND PROPERTIES OF PROPIONITRILIUM DERIVATIVES OF COBALT AND IRON BIS(DICARBOLLIDES)

3-16. *Boltkov E.D., Belousov Yu.A., Glazunova T.Yu., Lermontova E.Kh.*

SYNTHESIS AND CRYSTAL STRUCTURE OF NEW LUTETIUM FLUOROTRIFLUOROACETATE $[\text{Lu}_2(\mu_2\text{-F})(\eta_2\text{-CF}_3\text{COO})_4(\text{H}_2\text{O})_3](\text{CF}_3\text{COO})$

3-17. *Burlak P.V., Kovalenko K.A.*

SYNTHESIS, CRYSTAL STRUCTURE, AND FUNCTIONAL PROPERTIES OF CADMIUM(II)-BASED FLEXIBLE MOFS

3-18. *Buzoverov M.E., Glazunova T. Yu., Lermontova E. Kh.*

SYNTHESIS AND CRYSTAL STRUCTURE OF SODIUM HEXATRIFLUOROACETATOTITANATE (IV) $\text{Na}_2[\text{Ti}(\text{CF}_3\text{COO})_6] \cdot 2\text{CF}_3\text{COOH}$

3-19. *Cherkasova N.A., Zhivulin V.E., Vinnik D.A.*

FLUX GROWN TITANIUM SUBSTITUTED M-TYPE BARIUM HEXAFERRITES

3-20. *Dobrokhotova E.V., Rudnitskaia O.V., Kultyshkina E.K., Tereshina T.A., Komarovskikh M.R., Pekarskaya M.G., Zelenskaya A.V., Yakushev I.A.*

SYNTHESIS AND STRUCTURE OF $[(\text{NH}_2)_2\text{CSSC}(\text{NH}_2)_2]_2[\text{Ru}^{\text{IV}}\text{Br}_6]\text{Br}_2 \cdot 3\text{H}_2\text{O}$

3-21. *Domareva N.P., Alekseeva A.Yu., Botnar A.A., Erzunov D.A., Tikhomirova T.V., Vashurin A.S.*

REDOX-ACTIVE PHTHALOCYANINE SANDWICH COMPLEXES WITH RARE EARTH METALS AS PROMISING BIOSENSOR PROTOTYPES

3-22. *Efremov A.N., Sharutin V.V., Sharutina O.K.*

SYNTHESIS AND STRUCTURE OF TRIS(5-BROM-2-METHOXYPHENYL)ANTIMONY DERIVATIVES $(2\text{-MeO-5-BrC}_6\text{H}_3)_3\text{SbX}_2$ ($\text{X} = \text{ON}=\text{CHC}_6\text{H}_4\text{Br-2, OC(O)C}_6\text{F}_5, \text{OSO}_2\text{C}_6\text{H}_4\text{CH}_3\text{-4}$)

3-23. *Ermakova E.A., Eremina J.A., Smirnova K.S.*

SYNTHESIS AND CRYSTAL STRUCTURES OF CYTOTOXIC MIXED-LIGAND MANGANESE(II) COMPLEXES WITH 5-PHENYLTETRAZOLE AND POLYPYRIDINE DERIVATIVES

3-24. *Amdur A.M., Fedorov S.A.*

PASSAGE OF A GAS BUBBLE THROUGH THE BOUNDARY OF TWO IMMISCIBLE LIQUIDS ON THE EXAMPLE OF THE MATTE-SLAG SYSTEM

3-25. *Golodukhina S.V., Veselova V.O., Gajtko O.M., Svetogorov R.D., Egorysheva A.V.*

NEW SOLID SOLUTIONS OF $\text{La}_{1-x}\text{RE}_x\text{Ga}_{0.5}\text{Sb}_{1.5}\text{O}_6$ ($\text{RE} = \text{Ce, Eu, Tb, Dy, Er, Tm}$) FOR LUMINESCENT APPLICATIONS

3-26. *Gontcharenko V.E., Belousov Yu.A., Taydakov I.V.*

**MIXED-METAL LANTHANIDE COMPLEXES WITH CH₃-, CF₂H- AND CF₃-
SUBSTITUED 1,3-DIKETONES: KINETIC ASPECTS OF ENERGY TRANSFER
BETWEEN EU³⁺ AND TB³⁺**

3-27. *Gordeev E.V., Berseneva M.A.*

**SYNTHESIS AND RESEARCH OF ORGANO-INORGANIC PHOSPHORS BASED ON
GD-EU SYSTEMS**

3-28. *Gorodishch I.V.*

**CHIRAL TITANIUM(IV) AND VANADIUM(V) SALEN COMPLEXES AS CATALYSTS
FOR CARBON DIOXIDE AND EPOXIDE COUPLING REACTIONS**

3-29. *Grinishak I.P., Egorova I.V.*

PROTONATED FORM OF TRIS(2,6-DIMETHOXYPENYL)ANTIMONY OXIDE

3-30. *Gulyaev S.A., Sukhikh T.S., Ilyin I.Yu., Vikulova E.S.*

**SYNTHESIS, STRUCTURE AND THERMAL PROPERTIES OF SILVER(I) BETA-
DIKETONATES WITH BULKY TERMINAL SUBSTITUENTS AND THEIR
CYCLOOCTADIENE DERIVATIVES**

3-31. *Iliashchenko V.Yu., Dzhabiev T.S., Dzhabieva Z.M.*

**BIOMIMETIC OXIDATION OF WATER BY CERIUM AMMONIUM NITRATE IN THE
PRESENCE OF A BINUCLEAR NITRIDE COMPLEX OF RUTHENIUM**

3-32. *Ivanenko T.Yu., Golovnev N.N., Molokeev M.S.*

**THE BROADBAND-EMITTING OF NEUTRAL LEAD(II) N,N'-DIMETHYLTHIOUREA-
HALIDE PHOSPHORS**

3-33. *Ivanov A.B., Homutinina D.A., Volkovich V.A., Pavlova E.A., Chukin A.V.,
Malychev A.S.*

**CO-PRECIPITATION OF STRONTIUM AND BARIUM PHOSPHATES WITH
LANTHANIDES FROM ALKALI CHLORIDE BASED MELTS**

3-34. *Ivanova A.A., Belousov Yu.A., Lunev A.M.*

**MIXED-METAL FORMATRIAZOLE DICARBOXYLATES OF SAMARIUM,
GADOLINIUM AND TERBIUM: SYNTHESIS, STRUCTURE, AND LUMINESCENT
PROPERTIES**

3-35. *Ivanova E.A., Smirnova K.S.*

**SYNTHESIS AND INVESTIGATION OF PHOTOLUMINESCENT COMPLEXES
OF RARE EARTH METALS WITH 1-(1H-BENZIMIDAZOL-1-YL-METHYL)-1H-
BENZOTRIAZOLE**

3-36. *Kagilev A.A., Soficheva O.S., Kagileva A.A., Gafurov Z.N., Morozov V.I., Zueva E.M.,
Mamedov V.A., Yakhvarov D.G.*

**STUDY OF THE ELECTROCHEMICAL PROPERTIES OF NICKEL COMPLEXES
BASED ON BIDENTATE NITROGEN-CONTAINING LIGANDS**



3-37. *Kaimonov M.R., Safronova T.V., Tikhomirova I.N., Shatalova T.B.*

COMPOSITE CERAMIC MATERIALS IN THE Na_2O - CaO - SiO_2 - P_2O_5 SYSTEM FOR MEDICAL APPLICATION

3-38. *Kalle P., Bezzubov S.I.*

COBALT(II/III) TRIS-PHENANTHROLINES WITH DIFFERENT POLYIODODE ANIONS: SYNTHESIS AND STRUCTURE

3-39. *Kantyukov A.O., Gafurov Z.N., Soficheva O.S., Yakhvarov D.G.*

NEW SUSTAINABLE ELECTROCHEMICAL METHODS FOR GENERATION OF CATALYTICALLY ACTIVE SYSTEMS BASED ON GROUP VIII METALS FOR ETHYLENE OLIGOMERIZATION

3-40. *Kaplanova V.I., Kurapova O.Yu.*

STRUCTURE, DIFFUSION AND SELF-DIFFUSION COEFFICIENTS OF PROTON SUBSTITUTED β -ALUMINA

3-41. *Kapustin R.V., Vorotyntsev A.V., Petukhov A.N.*

OXIDATION OF CHLOROSILANES IN GENERATED THIN LAYERS

3-42. *Kashnik I.V., Brylev K.A.*

REACTIVITY OF THE MOST HIGHLY CHARGED RHENIUM OCTAHEDRAL CLUSTER COMPLEXES

3-43. *Katlenok E.A.*

SUPRAMOLECULAR ASSEMBLY OF METAL COMPLEXES VIA METAL-INVOLVING HALOGEN BONDS

3-44. *Ketova A.S., Kinzhalov M.A.*

SUPRAMOLECULAR SYSTEMS BASED ON ISOCYANIDE COMPLEXES OF GOLD(I)

3-45. *Kharisova K.A., Polivoda D.O., Kosykh A.S., Mashkovtsev M.A.*

STUDY OF THE EFFECT OF PRELIMINARY MODIFICATION OF SOLUTIONS ON THE PROPERTIES OF NICKEL HYDROXIDE

3-46. *Khistiaeva V.V., Grachova E.V., Koshevoy I.O.*

SO CLOSE BUT DIFFERENT: Pt(II) AND Pd(II) BINUCLEAR CYCLOMETALATED COMPLEXES OF THE TRIDENTATE $\text{N}^-\text{N}^+\text{C}$ AND $\text{N}^-\text{N}^+\text{C}$ LIGANDS

3-47. *Kiseleva M.A., Zakharov A.Yu., Bezzubov S.I.*

SYNTHESIS, STRUCTURE, OPTICAL AND ELECTROCHEMICAL PROPERTIES OF CYCLOMETALLATED COMPLEXES OF RHODIUM(III) AND IRIIDIUM (III) WITH AROMATIC β -DIKETONES

3-48. *Kissler T.Yu., Ivanov D.M., Soldatova N.S.*

INTERIONIC ASSOCIATION OF DIARYLIODONIUM THIOCYANATES AND SELENOCYANATES

3-49. *Klimova N.V., Ivanov A.G., Lebedev A.V., Kuznetsova M.G.*

OXIDATION OF OCTANOL-2 WITH PLATINOCHLORIC ACID



3-50. *Kniazeva M.V., Ovsyannikov A.S., Khanova L.M., Islamov D.R., Samigullina A.I., Gubaidullin A.T., Batulin R.G., Cherosov M.A., Solovieva S.E., Antipin I.S.*

DESIGN OF MANGANESE CLUSTERS BASED ON (THIA)CALIX[4]ARENES WITH CONTROLLED MAGNETIC PROPERTIES IN THE CRYSTALLINE PHASE

3-51. *Koblova A.A., Shakirova J.R.*

DESIGN, SYNTHESIS AND APPLICATION OF Ir(III) COMPLEX FOR FRET-BASED INTRACELLULAR pH-MEASUREMENT

3-52. *Konyaeva I.A., Mahmoudi G., Mitoraj M.P., Safin D.A.*

QUASI-AROMATIC MÖBIUS CADMIUM(II) COMPLEXES FABRICATED FROM THE BULKY N₆ TETRADENTATE HELICAL LIGAND IN DIFFERENT SOLVENTS

3-53. *Koptyaeva A.G., Zakharov A.Yu., Bezzubov S.I.*

SYNTHESIS AND STRUCTURE OF CYCLOMETALATED IRIIDIUM(III) COMPLEXES WITH HALOGEN-SUBSTITUTED 2-ARYLBENZIMIDAZOLES

3-54. *Koshelev D.S., Fedichkina A.D., Tcelykh L.O., Chikineva T.Yu., Utochnikova V.V.*

LANTHANIDE COMPLEXES WITH 2-(TOSYLAMINO)-BENZYLIDENE-N-(ARYLOYL)-HYDRAZONES DESIGN FOR NIR OLEDs APPLICATION

3-55. *Kosykh A.S.*

SYNTHESIS OF THE COMPOSITIONS OF LAYERED GADOLINIUM-TERBIUM HYDROXIDES AND THE HYBRID LUMINOPHERS FORMED FROM THEM AND THE STUDY OF THEIR PROPERTIES

3-56. *Kozhemiakina E.K., Svistunova I.V., Fedorenko E.V.*

POLYMETHINE DYE 2,2-DIFLUORO-4-(P-DIMETHYLAMINOSTYRYL)-6-PHENYL-1,3,2-DIOXABORINE AS A CATALYST AND MONOMER FOR BLOCK POLYMERIZATION OF METHYL METHACRYLATE

3-57. *Kryukova M.A., Ivanov D.M.*

ISOSTRUCTURAL EXCHANGE IN ADDUCTS OF PALLADIUM(II) AND PLATINUM(II) IODIDE COMPLEXES WITH DIIODINE

3-58. *Kulik D.S., Mozhaev S.K., Erzunov D.A., Vashurin A.S.*

INVESTIGATION OF THE CATALYTIC PROPERTIES OF OCTASUBSTITUTED COBALT PHTHALOCYANINES CONTAINING 2-CARBOXYPHENYLSULFO- AND 3-CARBOXYPHENYLSULFO-GROUPS

3-59. *Kurapova O.Yu., Zaripov A. A., Pazheltsev V. V., Glumov O.V., Faia P.M.*

PROTONIC CONDUCTIVITY OF POLYANTIMONIC ACID BASED ELECTROLYTES IN A RANGE 20-250 °C

3-60. *Kuznetsov K.M., Shakirova J.R., Tunik S.P.*

MOLECULAR THERMOMETERS BASED ON RUTHENIUM(II) BIPYRIDINE COMPLEXES

3-61. *Kuznetsova Yu.V., Volkhin V.V., Poylov V.Z., Permyakova I.A.*

NITROGEN AND PHOSPHORUS RECYCLING IN COMPLEX PROCESSING OF HIGHLY CONCENTRATED SALT SOLUTIONS, BY PRECIPITATION OF AMMONIUM AND PHOSPHATE IONS IN THE FORM OF STRUVITE

3-62. *Lapshin I.V., Trifonov A.A.*

CALCIUM, YTTERBIUM(II) AND SAMARIUM(II) BIS(AMIDO) COMPLEXES COORDINATED BY NHC LIGANDS – VERSATILE CATALYSTS FOR HYDROPHOSPHINATIONS WITH PH_3

3-63. *Larionova K. A.*

SYNTHESIS AND LUMINESCENT PROPERTIES OF SPHERICAL PARTICLES $\text{Lu}_2\text{O}_2\text{SO}_4:\text{Eu}^{3+}$

3-64. *Lavrova M.A., Mishurinskiy S.A., Savchenko A.G., Bezzubov S.I., Dolzhenko V.D.*

CYCLOMETALATED RUTHENIUM(II) COMPLEXES WITH 2-ARYL-1,3-AZOLES: SYNTHESIS, OPTICAL AND ELECTROCHEMICAL PROPERTIES

3-65. *Levitskaia V.Ya., Novikov S.S., Matveev E.Yu., Zhizhin K.Yu.*

SYNTHESIS OF THE DERIVATIVES OF CLOSO-BORATE ANIONS WITH CROWN-ETHERS

3-66. *Luchinin N.D., Aksyonov D.A., Morozov A.V., Ryazantsev S.V., Nikitina V.A., Abakumov A.M., Antipov E.V., Fedotov S.S.*

A- TiPO_4 AS A NEGATIVE ELECTRODE MATERIAL FOR Li-ION BATTERIES

3-67. *Luginin M.E., Petrovskii S.K.*

NOVEL POLYOXOVANADATE-Pt(II) MOLECULAR HYBRIDS: NEW MEMBERS OF MOLECULAR JUNCTION FAMILY

3-68. *Lukyantseva E.S., Sergeev V.V.*

KINETICS STUDY OF SOLVENT AND SOLID-PHASE EXTRACTION OF YTTRIUM FROM PHOSPHORIC ACID SOLUTIONS

3-69. *Luneva E.E., Solomatina A.I., Kozina D.O.*

PHOSPHORESCENT N[^]C[^]N-CYCLOMETALATED PLATINUM(II) COMPLEXES AND THEIR PHOTOPHYSICAL PROPERTIES

3-70. *Lyakaev D.V., Markin A.V., Smirnova N.N.*

THERMODYNAMICS OF ORGANIC DERIVATIVES OF PENTAVALENT ANTIMONY

3-71. *Malakhova Yu.A., Berezin A.S., Krivopalov V.P., Nikolaenkova E.B., Naumov D.Yu., Bushuev M.B., Vinogradova K.A.*

EXCITATION-WAVELENGTH-DEPENDENT EMISSION OF ZINC(II) HALIDE COMPLEXES WITH 2-[6-(1H-PYRAZOL-1-YL)-PYRIMIDIN-4-YL]PHENOL

3-72. *Marina A.V., Pokidova O.V., Emel'yanova N.S., Sanina N.A.*

EFFECT OF OXYGEN ON THE PROCESS OF DECOMPOSITION OF THE DINITROSYL IRON COMPLEX WITH N-ETHYLTHIOUREA LIGANDS

3-73. *Mashkin M.Y., Tedeeva M.A., Fedorova A.A., Kustov A.L.*

INVESTIGATION OF $\text{Cr}_2\text{O}_3/\text{SiO}_2$ CATALYSTS BEHAVIOR IN THE REACTION OF OXYDATIVE DEHYDROGENATION OF PROPANE IN PRESENCE OF CO_2

3-74. *Mashukova Y.A., Cheremisina O.V., Ponomareva M.A., Sitko A.V.*

MODYNAMIC MODEL FOR THE DESCRIPTION OF THE SORPTION OF EDTACERRATE IONS ON THE CYBBER EV009 ANIONITE

3-75. *Maslova A.P., Denisova U.A., Sukharensko M.A., Gubanov T.V.*

**PHASE EQUILIBRIA IN THE THREE-COMPONENT RECIPROCAL SYSTEM
Li, K || VO₃, WO₄**

3-76. *Medyankina I.S., Pasechnik L.A.*

SYNTHESIS OF WOLLASTONITE FROM AMORPHOUS SiO₂ OBTAINED FROM TECHNOGENIC WASTE

3-77. *Mescheriakova E.A., Tatarin S.V., Bezzubov S.I.*

SYNTHESIS, STRUCTURE, OPTICAL AND ELECTROCHEMICAL PROPERTIES OF CYCLOMETALLATED IRIIDIUM(III) COMPLEXES WITH BENZIMIDAZOLES AND AROMATIC β-DIKETONES

3-78. *Mikhailov I.K., Gafurov Z. N., Bekmukhamedov G. E., Kagilev A. A., Zueva E. M., Rossin A., Giambastiani G., Yakhvarov D.G.*

BENZOTHAIAZOLE- VS. PYRAZOLE-BASED UNSYMMETRICAL (PCN) Pincer COMPLEXES OF NICKEL(II) AS HOMOGENEOUS CATALYSTS IN ETHYLENE OLIGOMERIZATION

3-79. *Mikhnevich V.G., Kritchenkov I.S.*

PHOSPHORESCENT Ir(III) COMPLEXES WITH DIFFERENT N^N LIGANDS FOR OXYGEN SENSING

3-80. *Mustafina K.E., Chernukha A.S.*

PREPARATION OF ALUMINUM-SUBSTITUTED BARIUM HEXAFERRITE BY SOL-GEL METHOD

3-81. *Nazarov E.E., Fedotov S.S., Antipov E.V.*

CARBON COATING PRECURSOR' INFLUENCE ON ELECTROCHEMICAL PROPERTIES OF LiFe_{0.5}Mn_{0.5}PO₄/C

3-82. *Nedelko N.M., Skripkin M.Y.*

EFFECT OF REACTION CONDITIONS ON THE FORMATION OF MIXED-VALENCE Cu-BASED MOF [Cu₄{1,4-C₆H₄(COO)₂}(4,4'-bipy)₂]_n, ITS YIELD AND PHASE PURITY

3-83. *Nestroinaia O.V., Ryltsova I.G., Lebedeva O.E.*

STUDY OF THE PROPERTIES OF LAYERED DOUBLE HYDROXIDES CONTAINING TRIVALENT NICKEL

3-84. *Novikova S.N., Starodub A.N., Skorba V.R., Novikov A.N., Vasilyov V.A., Soloviyov S.N., Rakhmanova P.A.*

VOLUME PROPERTIES OF IODIDE AMMONIUM SOLUTIONS IN MIXED SOLVENTS DIMETHYLSULFOXIDE-WATER AT 298.15 K



3-85. *Nykhrikova E.V., Tatarin S.V., Bezzubov S.I.*

**CYCLOMETALATED IRIDIUM (III) COMPLEXES WITH
1,2-DIPHENYLPHENANTHROIMIDAZOLE AND DIFFERENT ANCILLARY
LIGANDS: SYNTHESIS, STRUCTURE AND PHOTOPHYSICAL PROPERTIES**

3-86. *Osipov V.T., Radchenko A.V., Sukhareenko M.A., Garkushin I.K.*

PHASE EQUILIBRIA IN THE TERNARY SYSTEM $\text{NaBr}-\text{Na}_2\text{MoO}_4-\text{Na}_2\text{WO}_4$

3-87. *Osipov N.I., Suslova E.V., Savivlov S.V.*

**ADSORPTION OF ORGANIC SOLVENTS ON $\text{Ti}_3\text{C}_2\text{T}_x$ MXENE WITH DIFFERENT
SURFACE FUNCTIONALIZATION**

3-88. *Parshina E.K., Skripkin M.Y., Kutuzov Y.A.*

**EFFECT OF REACTION CONDITIONS ON THE COMPOSITION AND STRUCTURE
OF MOF'S BASED ON CADMIUM TRIMESATE**

3-89. *Pashanova K.I., Lazarev N.M., Kukinov A.A., Piskunov A.V.*

**TRANSITION METAL COMPLEXES WITH IMINO BENZOQUINONE-TYPE
LIGANDS: THERMOCHEMICAL PROPERTIES AND PHOTOVOLTAIC
INVESTIGATIONS**

3-90. *Petrovskii S.K., Grachova E.V.*

**LIGHT-SWITCHABLE ORGANOGOLD(I) COMPOUNDS AS MODEL OBJECTS OF
NEW MOLECULAR MACHINE ELEMENTS**

3-91. *Polyakova S.K., Balashova T.V., Ilichev V. A., Kukinov A.A., Rumyantsev R.V. and
Bochkarev M.N.*

**NEW LUMINESCENT OXYBENZOQUINOLINE COMPLEXES OF RARE EARTH
METALS**

3-92. *Ponkrashina S.S., Matveev E.Yu., Zhizhin K.Yu.*

**SYNTHESIS OF CLOSO-BORATE ANION DERIVATIVES WITH
TRIPHENYLPHOSPHINE COMPLEXES OF METALS**

3-93. *Ponomareva M.A., Cheremisina O.V., Mashukova Yu.A.*

**THERMODYNAMIC DESCRIPTION OF EXTRACTION AND SORPTION
EQUILIBRIUM IN THE PRODUCTION OF LIGHT AND MEDIUM REM FROM
COMPLEX-SALT SOLUTIONS**

3-94. *Zarechnev V.V., Prach A.A.*

**EFFECTS OF TECHNOLOGICAL PARAMETERS ON PHASE TRANSFORMATIONS
 $\text{BaCO}_3 - \text{CaCO}_3 - \text{ZrO}_2 - \text{TiO}_2$ SYSTEM**

3-95. *Puzyk A.M., Mulloyarova V.V., Tolstoy P.M.*

**STRUCTURE OF HYDROGEN-BONDED COMPLEXES OF ARSINIC ACIDS IN
CRYSTAL AND IN SOLUTION**

3-96. *Puzyrkov Z.N., Fedorenko E.V., Svistunova I.V.*

**SYNTHESIS AND LUMINESCENT PROPERTIES 1-ARYL(GETARYL)-5-
PHENYLPHENE-2,4-DIENE-1-ONATE OF BORON DIFLUORIDE**

3-97. *Razvorotneva L.S., Golodukhina S.V., Liberman E. Yu., Egorysheva A.V.*
COMPLEX COBALT ANTIMONATES AS PROMISING CATALYSTS FOR CARBON MONOXIDE OXIDATION

3-98. *Rozhkov A.V., Zhmykhova M.V.*
PLATINUM(II) COMPLEXES AS NUCLEOPHILIC SYNTHONS FOR CHALCOGEN BONDING

3-99. *Sabbouh N.M., Shilovskikh V.V.*
SONOCHEMICAL NANOSTRUCTURING OF Cu-Zn ALLOY

3-100. *Sakhonenkova A.P.*
TECHNIUM PENTACARBONYL HYDRIDE SYNTHESIS

3-101. *Samarin A.Sh., Nazarov E.E., Fedotov S.S.*
SYNTHESIS OF NaFePO_4 AS ELECTRODE MATERIAL FOR SODIUM-ION BATTERIES THROUGH MILD ION-EXCHANGE APPROACH

3-102. *Sarvin I.A., Erzunov D.A., Vashurin A.S.*
SYNTHESIS OF NITROPHENOXY-SUBSTITUTED MAGNESIUM AND ZINC PHTHALOCYANINES COMPLEXES AND INVESTIGATION OF THEIR SPECTRAL-LUMINESCENT PROPERTIES

3-103. *Sherstyuk D.P., Starikov A.Yu., Zhivulin V.E., Zherebtsov D.A., Gudkova S.A., Perov N.S., Alekhina Yu.A., Astapovich K.A., Vinnik D.A., Trukhanov A.V.*
SYNTHESIS AND MAGNETIC PROPERTIES OF Ni-Zn-Co FERROSPINELS

3-104. *Shevtsova O.A., Safronova T.V., Kazakova G.K.*
SYNTHESIS OF MAGNESIUM PHOSPHATES WITH Mg/P=1 RATIO FROM AMMONIUM HYDROPHOSPHATE AND VARIOUS MAGNESIUM SALTS

3-105. *Shuklina N.N., Fomin V.M., Markin A.V.*
THE INFLUENCE OF PROTONATION IN THE OXIDATION PROCESS OF FERROCENYLMETHANOL WITH P-QUINONE IN THE PRESENCE OF PERCHLORIC ACID

3-106. *Simonova V.M., Khripun V.D.*
CALOMETRIC CHARACTERISATION OF THE $[\text{WO}_2(\text{mnt})_2]^{2-}$ OXOTRANSFER PROCESS AS THE SYNTHETIC ANALOGUE OF THE REDUCTASES

3-107. *Skovoroda V.A., Bogdanov O.A.*
STUDY OF CRYSTALLIZATION OF GLASSES OF THE B_2O_3 - La_2O_3 - Nb_2O_5 - WO_3 - Al_2O_3 SYSTEM

3-108. *Slavnov T.D., Egorova E.M., Garkushin I.K.*
PHASE BALANCE AND CHEMICAL INTERACTION IN A THREE-COMPONENT RECIPROCAL SYSTEM Ca, Ba || F, Cl



3-109. *Smirnov D., Bezzubov S.*

CYCLOMETALATED IRIIDIUM(III) COMPLEXES WITH N-BENZYL BENZIMIDAZOLES: SYNTHESIS, STRUCTURE, PHOTOPHYSICAL AND ELECTROCHEMICAL PROPERTIES

3-110. *Smirnova N.V., Safronova T.V.1, Kazakova G.K.*

POWDER MIXTURES PREPARED UNDER MECHANICAL ACTIVATION FROM AMMONIUM PHOSPHATES AND CALCIUM AND / OR MAGNESIUM ACETATES

3-111. *Snetkov D.A., Paderina A.V.*

HETEROBIMETALLIC SYSTEMS BASED ON BIS-ACETYLIDE PLATINUM(II) METALLOLIGAND

3-112. *Sokolov A.S., Perekalin D.S.*

CLICK CHEMISTRY WITH IRON SANDWICH COMPLEXES

3-113. *Solizoda I.A., Zhivulin V.E., Trofimov E.A., Vinnik D.A.*

STUDY OF THE EFFECT OF THE DOPING ELEMENT ON THE STRUCTURE AND PROPERTIES OF BARIUM HEXAFERRITE

3-114. *Solomatina A.I., Chelushkin P.S., Tunik S.P.*

SIMULTANEOUS FLIM-PLIM IMAGING USING DUAL pH-O₂ MOLECULAR PROBE

3-115. *Vinnik D.A., Zhivulin V.E., Uchaev D.A., Gudkova S.A., Starikov A.Yu., Trukhanov S.V., Turchenko V.A., Zubar T.I., Trukhanov A.V.*

INVESTIGATION OF THE PROPERTIES OF TITANIUM SUBSTITUTED BARIUM HEXAFERRITE

3-116. *Starodub A.N., Novikova S.N., Rassokhina L.Yu., Novikov A.N., Vasilyov V.A., Solovyov S.N., Rakhmanova P.A.*

IONIC MOLECULAR INTERACTIONS IN THREE-COMPONENT SOLUTIONS OF CADMIUM IODIDE IN N-METHYLPYRROLIDONE IN THE PRESENCE OF IONS OF ALKALINE AND ALKALINE-EARTH METALS

3-117. *Stashchak V.S., Kritchenkov I.S.*

IRIDIUM(III) COMPLEXES WITH DIFFERENT N[^]C LIGANDS AS MOLECULAR OXYGEN SENSORS

3-118. *Steshenko D.A., Boltkov E.D., Glazunova T.Y., Lermontova E.H.*

SYNTHESIS AND CRYSTAL STRUCTURE OF A NEW POTASSIUM FLUOROTRIFLUOROACETATE METALATES FAMILY FOR LANTHANIDES

3-119. *Sumina A.I., Eliseeva A.A. Bokach N.A.*

HALOGEN BONDING INVOLVING ALKYL DITHIOCARBONATE PLATINUM(II) COMPLEXES

3-120. *Sumovsky D.S., Abramova E.O.*

DESIGN OF CYCLOMETALLATED IRIIDIUM(III) COMPLEXES TO PRODUCE METALLOLIGANDS

3-121. *Syulyukina D.S., Gubanova T.V.*

THREE-COMPONENT NaF-NaVO₃-Na₂SO₄ SYSTEM

3-122. *Tatarin S.V., Bezzubov S.I.*

CYCLOMETALATED IRIDIUM(III) COMPLEXES WITH STERICALLY HINDERED LIGANDS – STRUCTURAL AND PHOTOPHYSICAL INVESTIGATIONS

3-123. *Tokarev O.V., Volkovich V.A.*

POTENTIOMETRIC STUDY OF GALLIUM CONTAINING CHLORIDE MELTS

3-124. *Tolmacheva N.N., Tyurnina N.G., Tyurnina Z.G.*

INFLUENCE OF ALKALINE-EARTH OXIDES (MgO, SrO, BaO) ON PHYSICAL-CHEMICAL CHARACTERISTICS CALCIUM BOROSILICATE GLASS

3-125. *Tonkova S.S., Erzunov D.A., Belikova A.A., Vashurin A.S.*

DYCYANOPHENOXY-SUBSTITUTED MAGNESIUM PHTHALOCYANINATES AND THEIR METAL-FREE ANALOGS: SYNTHESIS, PHOTOCHEMICAL AND PHOTOPHYSICAL PROPERTIES

3-126. *Toshev O.U., Stegalin G.L., Safronova T.V., Shatalova T.B., Lukina U.S., Malyutin K.V.*

CERAMICS IN CaO-P₂O₅, CaO-P₂O₅-Na₂O AND CaO-P₂O₅-K₂O SYSTEMS OBTAINED BY ANNEALING OF CEMENT STONE PREPARED FROM HIGHLY LOADED SUSPENSIONS OF CONTROLLED HARDENING

3-127. *Tryakhov D.E., Dorovskikh S.I.*

EXPERIMENTAL AND THEORETICAL INVESTIGATIONS OF NEW VOLATILE PALLADIUM COMPLEXES WITH FLUORINATED β-DIKETONES AND β-IMINOKETONES

3-128. *Tyupina M.Yu., Miroslavov A.E., Sidorenko G.V., Gurzhiy V.V.*

«2+1» TRICARBONYL COMPLEXES OF TECHNETIUM-99 AND RHENIUM WITH ETHYL 2-ISOCYANOACETATE

3-129. *Uglunts T.V., Semencha A.V., Klinkov V.A.*

SYNTHESIS OF MAGNESIUM SILICATE ADSORBENTS WITH DIFFERENT MOLAR RATIO MgO:SiO₂ AND RESEARCH OF POROUS STRUCTURE FORMATION MECHANISM

3-130. *Uvarov B.V., Tsygankova M.V.*

QUADRA COMPONENT SYSTEM NiSO₄·6H₂O - 3CdSO₄·8H₂O - (NH₄)₂SO₄ - H₂O

3-131. *Vialtsev M.B., Tcelykh L.O., Utochnikova V.V.*

TERBIUM AND EUROPIUM AROMATIC CARBOXYLATES IN THE POLYSTYRENE MATRIX: THE FIRST METAL-ORGANIC-BASED MATERIAL FOR HIGH TEMPERATURE THERMOMETRY

3-132. *Volkov F.S., Kamenskii M.A., Eliseeva S.N., Kondratiev V.V.*

DEVELOPMENT OF PEDOT-COATED V₂O₅-BASED CATHODE MATERIAL FOR ZINC-ION BATTERIES

3-133. *Vyprietskaya A.I., Kamenskii M.A., Eliseeva S.N., Kondratiev V.V.*

THE EFFECT OF ELECTROLYTE ON THE LiMn_2O_4 PERFORMANCE IN HYBRID Zn/Li AQUEOUS BATTERY

3-134. *Yudina Yu.A., Demakov P.A., Dybtsev D.N.*

SEPARATION OF BENZENE AND CYCLOHEXANE BY ZINC PADDLE-WHEEL METAL-ORGANIC FRAMEWORKS

3-135. *Zakharov A.Yu., Kalle P., Bezzubov S.I.*

CRYSTALLOGRAPHIC DESIGN OF CATIONIC IRIIDIUM(III) COMPLEXES WITH POLYIODIDE ANIONS – BETTER UNDERSTANDING OF “DYE-MEDIATOR” INTERACTIONS IN DSSC

3-136. *Zefirova P.M.*

SYNTHESIS AND CHARACTERIZATION OF COMPLEXES OF MCl_4 WITH PYRAZINE (M = Si, Sn)

3-137. *Zhmykhova M.V., Rozhkov A.V.*

BIS(PERFLUOROPYRIDIN-4-YL)SELANE AND BIS(PERFLUOROPYRIDIN-4-YL) TELLANE AS CHALCOGEN

3-138. *Zhurauleva A.A., Lyakhov A.S., Serebryanskaya T.V.*

SYNTHESIS AND CHARACTERIZATION OF RHUTHENIUM(II) COMPLEXES WITH 2-(1H-TETRAZOL-1-YL)PYRIDINE

3-139. *Zubakina I.N., Egorova I.V., Zhidkov V.V.*

BISMUTH-CONTAINING COMPLEX WITH ANTIMONY-ORGANIC CATION $\{[2,4,6-(\text{MeO})_3\text{C}_6\text{H}_3]\text{SbCH}_2\text{C}(\text{O})\text{OEt}\}^+$. SYNTHESIS AND STRUCTURE

3-140. *Klyamer D.D., Sukhikh A.S., Basova T.V.*

INFLUENCE OF FLUOROSUBSTITUTION ON THE STRUCTURAL FEATURES AND SENSOR PROPERTIES OF METAL PHTHALOCYANINE THIN FILMS

3-141. *Verkhov V.A., Antonov A.S.*

UNUSUAL REACTIVITY OF N-TRIMETHYLSILYLATED 4-DIMETHYAMINOPYRIDINES TOWARDS ORGANOLITHIUMS

3-142. *Galiev R.R.*

COORDINATION COMPOUNDS BASED ON NEW TETRANUCLEAR VANADIUM FRAGMENT $\{\text{V}_4\text{OSe}_8\text{I}_6\}$: SYNTHESIS, STRUCTURE AND PROPERTIES

3-143. *Shilov R.A., Shakirova J.R.*

LUMINESCENT PLATINUM(II) COMPLEXES BASED ON 2,2'-BIPYRIDINES

3-144. *Evseev G.S., Vikulova E.S., Sukhikh A.S.*

SYNTHESIS AND STRUCTURAL STUDY OF NON-FLUORINATED MAGNESIUM BETA-DIKETONATE COMPLEXES WITH (O^N) AND (N^N)-DONOR NEUTRAL LIGANDS

3-145. *Gorkusha G.V., Ruzanov D.O.*

VANADIUM(V) COMPLEXES WITH CARBOHYDRATES AND ALCOHOLS

3-146. *Abasheeva, K.D., Demakov, P.A.*

STRUCTURE AND SYNTHESIS OF COBALT(II)-ORGANIC FRAMEWORKS WITH 1,4-DIAZABICYCLO[2.2.2]OCTANE *N,N'*-DIOXIDE BRIDGE

3-147. *Shcherbina N.A., Kazakov I.V., Timoshkin A.Y.*

STRUCTURAL FEATURES OF COMPLEXES OF LEWIS ACIDS $E(C_6F_5)_3$ ($E = B, Al, Ga, In$) WITH 2-AMINOPYRIDINE

3-148. *Teterina A.A., Vikulova E.S., Sukhikh A.S.*

VOLATILE Pd(II) COMPLEXES WITH (O,N,N,O)-CHELATING LIGANDS AND THEIR BIMETALLIC DERIVATIVES

3-149. *Sosnovsky V.B., Mereshchenko A.S., Vidyakina A.A., Nosov V.G., Zheglov D.A., Ostrosablin A.N., Sysoeva A.A., Zaverukhin S.E.*

LUMINESCENT METAL-ORGANIC FRAME STRUCTURES BASED ON RARE EARTH TEREPHTHALATES $(Eu_xLu_{1-x})_2(1,4-BDC)_3 \cdot yH_2O$

3-150. *Vasileva A.A., Demakov P.A.*

MULTI-COLORED EMISSION AND LUMINESCENT DETECTION BY A SERIES OF LANTHANIDE METAL-ORGANIC FRAMEWORKS

3-151. *Trusova A.B., Nikitin E.A., Latipov E.V.*

CYTOPROTECTIVE PROPERTIES OF LANTHANUM CARBOXYLATES CONTAINING FRAGMENT OF 2,6-DI-*TERT*-BUTYLPHENOL

3-152. *Zavyalova A.G., Kladko D.V., Vinogradov V.V.*

CRYSTALLIZATION OF MOFS IN MAGNETIC LEVITATION

3-153. *Yakubenko A.A., Antonov A.S.*

LITHIATION OF 2,4,5,7-TETRABROMO-1,8-BIS(DIMETHYLAMINO) NAPHTHALENE

3-154. *Bonegardt D.V., Klyamer D.D., Sukhikh A.S., Basova T.V.*

INVESTIGATION OF THE EFFECT OF HALOGEN SUBSTITUTION ON THE STRUCTURAL FEATURES AND SENSOR PROPERTIES OF METAL PHTHALOCYANINES

3-155. *Kuznetsova A.A., Turnina S.G., Turnina N.G., Polyakova I.G., Karpovich N.F., Slastikhina P.V.*

SYNTHESIS AND THE PROPERTIES OF BOROSILICATE GLASS WITH INCREASED CONTENTION OF STRONTIUM OXIDES AND CESIUMNAPHTHALENE



NANOCHEMISTRY AND NANOMATERIALS

University embankment, 7-9-11, lit. A, 2046 Assembly Hall

CHAIRMAN: Prof. Alina Manshina, Institute of Chemistry, SPbU

SECRETARIES: Dr. Ilya Tumkin, Institute of Chemistry, SPbU

Dr. Daria Mamonova, Institute of Chemistry, SPbU

ORAL REPORTS

Tuesday, 7th September

10:20 - 10:45

KEYNOTE
SPEAKER

Prof. Bachmann J.

INTERFACE ENGINEERING IN EXTREMELY THIN
ABSORBER SOLAR CELLS

10:45 - 11:00

Mínguez-Bacho I., Döhler D., Triana A., Büttner P., Scheler F.,
Goerlitzer E.S.A., Harrer J., Vasileva A., Metwalli E., Gruber W.,
Unruh T., Manshina A., Vogel N., Bachmann J.

HIGHLY ORDERED NANOSTRUCTURES AND THEIR
IMPLEMENTATION IN TRANSPARENT ELECTRODES FOR
OPTO-ELECTRONIC APPLICATIONS

11:00 - 11:15

Müssig S., Reichstein J., Prieschl J., Wintzheimer S., Mandel K.

A SINGLE MAGNETIC PARTICLE WITH NEARLY UNLIMITED
ENCODING OPTIONS

11:15 - 11:30

Miller F., Prieschl J., Wintzheimer S., Strauss V., Mandel K.

A SUPRAPARTICLE-BASED FIVE-LEVEL-IDENTIFICATION
TAG THAT SWITCHES INFORMATION UPON READOUT

11:50 - 12:05

Reichstein J., Miller F., Wintzheimer S., Mandel K.

COMMUNICATING PARTICLES: IDENTIFICATION
TAGGANT AND TEMPERATURE RECORDER IN ONE SINGLE
SUPRAPARTICLE

12:05 - 12:20

Butt M.A.T., Mamonova D., Manshina A.A., Leuchs G., Banzer P.

REVEALING THE COMPLEX REFRACTIVE INDEX OF NOVEL
HYBRID CARBON FLAKES

12:20 - 12:35

Doan H.V., Nguyen H.T., Ting V.P., Pham X.N.

IMPROVED PHOTODEGRADATION OF ANIONIC DYES
USING A COMPLEX GRAPHITIC CARBON NITRIDE AND
IRON-BASED METAL-ORGANIC FRAMEWORK MATERIAL

12:35 - 12:50

Ivanova V.N.

HYBRID NANOMATERIALS BASED ON ZINC
PHTHALOCYANINE DERIVATIVES AND SINGLE WALLED
CARBON NANOTUBES FOR CHEMIREISTIVE SENSORS



12:50 - 13:05	<u>Vinogradov N.A., Savinov A.A., Pimerzin A.A., Glotov A.P.</u> APPLICATION OF MESOPOROUS ZEOLITE MATERIALS IN CATALYSTS FOR REACTIONS OF STERICALLY HINDERED MOLECULES. INFLUENCE OF THE MESOSTRUCTURING METHOD
14:35 - 14:50	<u>Nikitina A.A., Andreeva D.V.</u> MECHANOCHEMICAL SYNTHESIS OF "SWEET GREEN GRAPHENE"
14:50 - 15:05	<u>Shishmakova E.M., Dement'eva O.V., Naumova K.A., Rudoy V.M.</u> A SIMPLE ROUTE FOR CREATING SMART MESOPOROUS SILICA VEHICLES LOADED WITH TWO POORLY WATER-SOLUBLE DRUGS
15:05 - 15:20	<u>Sviridova E.V.</u> SURFACE FUNCTIONALIZATION OF CARBON NANOSTRUCTURES: NEW HORIZONS IN MATERIAL DESIGN
15:20 - 15:35	<u>Muravev A.A., Yakupov A.T., Gerasimova T.P., Selektor S.L., Solovieva S.E., Antipin I.S.</u> THIACALIXARENES WITH SULFUR FUNCTIONALITIES ON THE LOWER RIM: SYNTHESIS AND METAL ION COMPLEXATION IN SOLUTION AND CONFINED SPACE

Wednesday, 8th September

10:00 - 10:20 INVITED SPEAKER	<u>Prof. Abramov P.</u> POLYOXOMETALATES AS MULTIFUNCTIONAL PLATFORM FOR CHEMICAL ENGINEERING
10:20 - 10:35	<u>Rudakovskaya P., Barmin R., Gusliakova O., Sindeeva O., Prikhozhenko E., Maksimova E., Obukhova E., Chernyshev V., Khlebtsov B., Sukhorukov G., Gorin D.</u> AIR-FILLED ALBUMIN MICROBUBBLES STABILIZED WITH GOLD NANOPARTICLES AND PHOTODYNAMIC DYE FOR THERANOSTICS DEMANDS
10:35 - 10:50	<u>Gak A.S., Kuznetsova S.A., Riazanov V.I., Yunusov S.M., Nelyubina Y.V., Belokon Y.N.</u> CHARGE-ASSISTED HYDROGEN BONDED ORGANIC FRAMEWORKS (CAHOF) AS A NEW CLASS OF SUPRAMOLECULAR ORGANIC RECOVERABLE AND SELF-HEALING HETEROGENEOUS BRØNSED ACIDS CATALYST. CATALYTIC PERFORMANCE AND ENCAPSULATION OF METAL NANOPARTICLES



10:50 - 11:05

Burmistrov I.A., Mikheev A.V., Veselov M.M., Borodina T.N., Klyachko N.L., Bukreeva T.V., Trushina D.B.

TRIGGERED RELEASE OF TRITC-DEXTRAN FROM POLYELECTROLYTE MAGNETIC MICROCAPSULES UPON APPLICATION OF A LOW FREQUENCY MAGNETIC FIELD

11:05 - 11:20

Khabirova S.Yu., Aleshin G.Yu., Plakhova T.V., Shchukina A. A., Zubenko A.D.

NANOPARTICLES OF CERIUM (IV) OXIDE AS A PLATFORM FOR POTENTIAL RADIOPHARMACEUTICALS

11:30 - 11:45

Podurets A.A., Bobrysheva N.P., Osmolowsky M.G., Voznesenskiy M.A., Osmolovskaya O.M.

THE RELATIONSHIP "CHEMICAL COMPOSITION-STRUCTURAL PARAMETERS-PHOTOCATALYTIC PROPERTIES" IN 3D-DOPED TIN DIOXIDE NANOPARTICLES

11:45 - 12:00

Votkina D.E., Petunin P.V., Guselnikova O.A., Sylvain R. A. Marque, Jean-Patrick Joly, Gerard Audran, Postnikov P.S.

PLASMON RESONANCE AS EFFICIENT INITIATION APPROACH FOR CONTROLLED RADICAL GENERATION

12:00 - 12:15

Guselnikova O., Postnikov P. S. , Lyutakov O.

PLASMON-ASSISTING CHEMISTRY: PLASMONIC SUBSTATE STRUCTURE AND SURFACE CHEMISTRY

12:15 - 12:30

Salavatov N.A., Dement'eva O.V., Rudoy V.M.

PLASMONIC CORE@SHELL NANOPARTICLES LOADED WITH CISPLATIN AS MULTIFUNCTIONAL NANOSTRUCTURES FOR CANCER TREATMENT

12:30 - 12:45

Nugmanova A.G., Safonova E.A., Baranchikov A.E., Shkolin A.V., Mitrofanov A.A., Eliseev A.A., Meshkov I.N., Kalinina M.A.

SIZE-SELECTIVE AEROBIC-ANAEROBIC SWITCHING OF PHOTOCATALYTIC PATHWAYS IN PORPHYRIN-BASED SURMOF/GRAPHENE OXIDE MATERIALS

Thursday, 9th September

10:00 - 10:20

*INVITED
SPEAKER*

Dr. Grzhegorzhevskii K.

PRECISE GRAFTING OF THE KEPLERATE POLYOXOMETALATES BY ORGANOSILICONE FOR DYES CONJUGATION

10:20 - 10:35

Gorbacheva S.N., Yadykova A.Y., Ilyin S.O.

A NOVEL METHOD FOR PRODUCING CELLULOSE NANOPARTICLES AND THEIR POSSIBLE APPLICATIONS



10:35 - 10:50	<u>Terekhov R.P., Selivanova I.A.</u> DIHYDROQUERCETIN LYOPHILIZATES: SYNTHESIS AND CHARACTERIZATION OF GREEN NANOMATERIALS
10:50 - 11:05	<u>Musatova V.Yu., Semenov S.A., Dzhardimalieva G.I., Smirnova O.D.</u> MAGNETOACTIVE METAL-POLYMER NANOMATERIALS CONTAINING COBALT(II), NICKEL(II) AND IRON: SYNTHESIS, PROPERTIES, APPLICATION
11:05 - 11:20	<u>Mironova A.D., Sokolov M.N.</u> NEW SYNTHETIC APPROACHES FOR OCTAHEDRAL CLUSTERS OF MOLYBDENUM, TUNGSTEN AND RHENIUM
14:30 - 14:45	<u>Khramtsov P.V.</u> NOVEL METHOD OF GELATIN NANOPARTICLES SYNTHESIS
14:45 - 15:00	<u>Dorosheva I.B., Pechishcheva N.V., Korobitsyna A.D., Valeeva A.A., Sushnikova A.A., Petrova S.A., Shunyaev K.Yu., Rempel A.A.</u> PHOTOSORPTION OF CHROME(VI) FROM AQUEOUS SOLUTIONS ON MODIFIED RUTILE TITANIUM DIOXIDE NANOPOWDERS
15:00 - 15:15	<u>Nechaeva A.M., Zhukova A.A., Maslak M.A., Shashkova T.M., Luss A.L., Kuskov A.N.</u> PREPARATION OF FUNCTIONALIZED AMPHIPHILIC COPOLYMERS OF POLY-N-VINYLPYRROLIDONE AND ACRYLIC ACID FOR DRUG DELIVERY SYSTEMS
15:15 - 15:30	<u>Kurnosenko S.A., Voitovich V.V., Silyukov O.I., Rodionov I.A., Zvereva I.A.</u> SYNTHESIS AND PHOTOCATALYTIC ACTIVITY OF ORGANICALLY MODIFIED LAYERED PEROVSKITE-LIKE TITANATES $HLnTiO_4$ (Ln = La, Nd)
15:30 - 15:45	<u>Veselova V.O.</u> SYNTHESIS OF HIGHLY DISPERSED $Bi_4Ge_3O_{12}$ BY COPRECIPITATION

POSTER SESSION

Thursday, 9th September, 11:35-13:00

4-1. Aleksandrova D.D., Navrotskaya A.G., Chekini M., Yakavets I., Kheiri S., Krivoschapkina E.F., Kumacheva E.

OPTICALLY ACTIVE MATERIALS BASED ON CELLULOSE NANOCRYSTALS MODIFIED BY CARBON DOTS



4-2. Anikanova V.I., Popov A.L., Shcherbakov A.B., Ivanov V.K.

BIOLOGICAL ACTIVITY OF PQQ-CERIUM OXIDE NANOCOMPOSITE IN MENADIONE INDUCED OXIDATIVE STRESS IN VITRO

4-3. Artemova A.V., Maklakov S.S., Shiryayev A.O., Osipov A.V., Naboko A.S., Petrov D.A., Dolmatov A.V.

SYNTHESIS AND PROPERTIES OF HOLLOW IRON POWDERS OBTAINED VIA ULTRASONIC SPRAY-PYROLYSIS TECHNIQUE

4-4. Baniya N.

ADVANCES IN REGENERATIVE MEDICINE AND TISSUE ENGINEERING: INNOVATION AND TRANSFORMATION OF MEDICINE

4-5. Belhadi A., Vasileva A., Pankin D., Manshina A.

LASER-DEPOSITED NANOFIBERS AS SERS-ACTIVE TAGS

4-6. Bikbaeva G.I., Vasileva A.A., Mamonova D.V., Kolesnikov I.E., Kalinichev A.A., Manshina A.A.

LASER DEPOSITED SILVER NANOPARTICLES FOR FLUORESCENCE ENHANCEMENT

4-7. Bobrovsky A., Shibaev V., Hamplová V., Bubnov A.

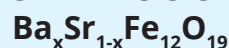
PHOTOTUNABLE LIQUID CRYSTALLINE COMPOSITES BASED ON POROUS ORGANIC AND INORGANIC MATRICES

4-8. Bogatyрева K.A., Zhivulin V.E., Vinnik D.A., Pavlova K.P.

STUDY OF THE SYNTHESIS OF CERAMIC MATERIALS BASED ON BARIUM HEXAFERRITE, SUBSTITUTED WITH ALUMINUM, WITH A VIEW TO IMPROVING THE PHYSICOCHEMICAL PROPERTIES

4-9. Boldin A.A., Zhivulin V.E., Vinnik D.A.

SYNTHESIS OF CERAMICS OF HEXAGONAL FERRITE COMPOSITION



4-10. Brovko R.V., Doluda V.Yu., Nikoshvili L.Zh., Sulman M.G.

SYNTHESIS AND CHROMATOGRAPHIC AND MASS SPECTROMETRIC DETERMINATION OF PRODUCTS IN THE CATALYTIC TRANSFORMATION OF ETHANOL

4-11. Bugerya A.A., Karpushkin E.A.

THE EFFECT OF GLUCOSE-DERIVED CARBON NANODOTS PREPARATION CONDITIONS ON THEIR PROPERTIES

4-12. Butonova S.A., Morozov M.I., Vinogradov A.V.

INVESTIGATION OF THE DECOMPOSITION PRODUCTS AND KINETICS OF DEGRADATION OF ZIF-8 IN LACTIC ACID

4-13. Chebanenko M.I., Popkov V.I.

FORMATION FEATURES OF $\text{Sc}_{2-x}\text{Fe}_x\text{O}_3$ NANOCRYSTALS VIA GLYCINE-NITRATE COMBUSTION SYNTHESIS

4-14. *Pentsak E.O., Galushko A.S., Cherepanova V.A., Ananikov V.P.*

HOW TO MAKE A COCKTAIL OF PALLADIUM CATALYSTS FROM COCA-COLA® AND (WATER-BASED ETHANOL SOLUTIONS) POTABLE ETHANOL? HETEROATOMS DOPING VS. SURFACE AREA OF CARBON SUPPORT

4-15. *Chukavin N.N., Popov A.L., Shcherbakov A.B., Ivanov V.K.*

CeO₂ – CALCEIN NANOCOMPOSITE AS AGENT FOR DIRECT MONITORING OF INTRACELLULAR ROS INACTIVATION

4-16. *Chupina A.V., Abramov P.A.*

PREPARATION OF SILVER NANOPARTICLES BY DECOMPOSITION SILVER HYDROXYMETHYLACETYLENIDE COORDINATION POLYMERS

4-17. *Darkhanbaatar N., Yoshidomi K., Mizoshiri M.*

CHARACTERIZATION OF Co₃O₄ NANOPARTICLE REDUCTION SINTERING AND APPLICATION TO FLEXIBLE DEVICE

4-18. *Demidova N.D., Sadetskaya A.V., Syukkalova E.A., Bobrysheva N.P., Osmolovsky M.G., Osmolovskaya O.M.*

REGULATION OF MORPHOLOGICAL PARAMETERS AND OPTICAL CHARACTERISTICS OF CHROMIUM-DOPED HYDROXYAPATITE NANOPARTICLES BY DIRECTIONALLY CHANGING THE PROCESSES OF THEIR FORMATION

4-19. *Dokuchaev I.S., Maksimov N.M., Tyshenko V.A.*

INVESTIGATE OF THE INFLUENCE OF A HIGHLY DISPERSED CATALYST ON THE THERMAL CRACKING PROCESS

4-20. *Dominnik E.E., Ivanova N.K., Karpushkin E.A., Sergeev V.G.*

PREPARATION OF SILVER NANOPARTICLES BY DECOMPOSITION SILVER HYDROXYMETHYLACETYLENIDE COORDINATION POLYMERS

4-21. *Domnin A.V., Porsev V.V.*

NON-EMPIRICAL STUDY OF THE PROPERTIES OF POLYTWISTANE

4-22. *Dovzhenko A.P., Zairov R.R., Mustafina A.R.*

SINGLE EXCITED DUAL BAND LUMINESCENT HYBRID CARBON DOTS-TERBIUM CHELATE NANOTHERMOMETER

4-23. *Dubovenko R.R., Rostovtseva V.A., Vinogradova L.V., Polotskaya G.A., Pulalina A.Yu.*

STRUCTURE AND SEPARATION PERFORMANCE OF NOVEL MIXED MATRIX MEMBRANES CONTAINING IONIC LIQUID AND STAR MACROMOLECULES

4-24. *Dzhevaga E.V., Popkov V.I.*

ON THE THERMAL STABILITY OF CUBIC ZrO₂ AND ITS TRANSFORMATION

4-25. *Efimova S.A., Ikonnikova E.V., Vinogradov A.V.*

CREATING A NANOCOMPOSITE BASED ON ENCAPSULATED HEMIN IN ZIF-8 AND TITANIUM DIOXIDE NANOTUBES



4-26. Fomkina A.S., Kolokolov D.S., Bobrysheva N.P., Osmolowsky M.G., Voznesenskiy M.A., Osmolovskaya O.M.

RELATIONSHIP OF MORPHOLOGICAL PARAMETERS, OPTICAL AND PHOTOCATALYTIC PROPERTIES OF Tb-SnO₂ NANOPARTICLES

4-27. Gerasimova L.V., Charykov N.A.

KINETICS OF CHLORELLA VULGARIS GROWTH IN THE CONDITIONS OF OXIDATION STRESS

4-28. Matsenko R.O., Glavinskaia V.O., Zheltova V.V., Osmolowsky M.G., Bobrysheva N.P., Osmolovskaya O.M.

NEW GADOLINIUM-BASED CONTRAST AGENT: PROSPECTS AND APPLICATIONS

4-29. Gorbunov I.S., Stepanova U.A., Al-Mayyahi H.A., Muradova A.G.

QUANTUM DOTS FOR CREATING LASER-ACTIVE ENVIRONMENT

4-30. Gritsenko M.M., Nazarova E.A., Krivoschapkina E.F.

A SENSOR BASED ON TITANIUM DIOXIDE GEL FOR THE DETERMINATION OF HYDROGEN PEROXIDE IN THE DAIRY PRODUCTS

4-31. Gruzdeva E.O., Rodionov I.A.

PHOTOCATALYTIC ACTIVITY OF BUTYLAMINE-INTERCALATED PEROVSKITE-LIKE LAYERED OXIDE H₂La₂Ti₃O₁₀

4-32. Gusarova E.A., Zvyagina A.I., Kuzmina N.V., Alexandrov A.E., Averin A.A., Kalinina M.A.

PLANAR COMPOSITE MATERIALS BASED ON GRAPHENE OXIDE AND POLYDIACETYLENE DERIVATIVES

4-33. Gutsalova A.A., Vinogradov A.V.

SYNTHESIS AND CHARACTERIZATION OF MESOPOROUS SILICA NANOPARTICLES

4-34. Gulakhmedov R.R., Selimov D.A., Abdurakhmanov M.G., Kadiev M.V., Shuaibov A.O., Orudzhev F.F., Sobola D.S., Ramazanov Sh.M.

PIEZOCATALYTIC DECOMPOSITION OF METHYLENE BLUE BY FLEXIBLE CTAB/PVDF NANOCOMPOSITE FIBERS FILM

4-35. Harshavardhana S., Stolyarova S.G., Bulusheva L.G., Okotrub A.V.

HYBRIDS BASED ON MoS₂ AND PYROLYTIC CARBON/CARBON NANOTUBE ARRAY FOR ANODES OF Li-ION BATTERIES

4-36. Isakov N.A., Noskov B.A.

SPREAD AND ADSORBED LAYERS OF FULLERENE C60 AND BOVINE SERUM ALBUMIN AT THE WATER-AIR INTERFACE

4-37. Ikonnikova E.V., Butonova S.A., Vinogradov A.V., Feina X.U.

CHARACTERIZATION OF COMMERCIAL ANIONS EXCHANGE MEMBRANES AND HOME-MADE ELECTRODES FOR IONS EXCHANGE MEMBRANES FUEL CELLS

4-38. *Ivanova I.O., Kostromicheva M.M., Voronina K.L., Koroleva M.Yu.*

INFLUENCE OF POLYSACCHARIDE TYPE ON THE STABILITY OF SEA BUCKTHORN OIL NANOEMULSIONS

4-39. *Ivanova N.K., Karpushkin E.A., Sergeev V.G.*

PREPARATION OF ULTRASMALL GOLD NANOPARTICLES IN THE PRESENT OF ADENOSINE TRIPHOSPHATE

4-40. *Ivanov B.M., Ivanova N.K., Karpushkin E.A., Sergeev V.G.*

THE INTERACTION OF COPPER(II) IONS WITH DNA AND ITS INFLUENCE ON THE PREPARATION OF COPPER NANOPARTICLES

4-41. *Kagane D.D., Sharapaev A.I., Norenko A.N., Muradova A.G.*

SYNTHESIS OF IRON OXIDE NANOPARTICLES IN SILICA MATRICES

4-42. *Karakchieva A.O., Karpushkin E.A., Sergeyev V.G.*

GOLD NANOPARTICLES SYNTHESIS IN THE PRESENCE OF CARBON NANODOTS

4-43. *Khramenkova A.V., Izvarin A.I., Ariskina D.N.*

FLEXIBLE CARBON FIBER TEXTILES COATED WITH TRANSITION METAL OXIDES AS PERSPECTIVE ELECTRODE MATERIALS

4-44. *Kochnev N.D., Kolokolov D.S., Bobrysheva N.P., Osmolowsky M.G., Voznesenskiy M.A., Osmolowskaya O.M.*

IMPACT OF ZINC OXIDE NANOPARTICLES STRUCTURAL PARAMETERS ON THEIR PHOTOCATALYTIC PROPERTIES UNDER UV AND VIS IRRADIATION

4-45. *Kolesnikov I.E., Mamonova D.V., Mikhail A. Kurochkin, Manshina A.A.*

Co-DOPED AND MIXED DUAL-CENTER RATIOMETRIC $\text{YVO}_4:\text{Nd}^{3+}/\text{Eu}^{3+}$ NANOTHERMOMETERS

4-46. *Kolmanovich D.D., Popov A.L., Popova N.R., Shcherbakov A.B., Ivanov V.K.*

A NEW HAFNIUM-BASED RADIOSENSITIZER PROVIDE SELECTIVE X-RAY INDUCED CYTOTOXICITY IN VITRO

4-47. *Kolokolov D.S., Marakaryan A.A., Kolesnikov I.E., Osmolowsky M.G., Bobrysheva N.P., Voznesenskiy M.A., Osmolowskaya O.M.*

CORRELATION BETWEEN MORPHOLOGICAL PARAMETERS AND FUNCTIONAL PROPERTIES OF EUROPIUM-DOPED BOEHMITE NANOPARTICLES

4-48. *Kondrateva V.U., Martynenko E.A., Verevkin S.P.*

HYDROGENATION OF EUTECTIC MIXTURE OF BIPHENYL AND DIPHENYLMETHANE OVER SUPPORTED PLATINUM CATALYSTS

4-49. *Koptyaev A.I., Sachkov Yu.I., Travkin V.V., Stuzhin P.A.*

ETIOPORPHYRINS IN THIN FILMS: NANOSTRUCTURE AND PHOTOCONDUCTIVITY

4-50. *Koshevaya E.D., Morozov V.N., Kolyvanova M.A., Krivoschapkina E.F., Krivoschapkin P.V.*

DEVELOPMENT OF AN ADVANCED PLATFORM FOR CANCER THERANOSTICS BASED ON TANTALUM OXIDE NANOPARTICLES



4-51. *Kudymov V.K., Kozlova L.A., Ponomareva A.N., Zemtsova E.G.*

EFFECT OF THE SILICA PRECURSOR CONCENTRATION ON THE CONTINUITY OF THE CORE-SHELL COATING OF $\text{Fe}_3\text{O}_4/\text{SiO}_2$ NANOPARTICLES AND THE MAGNETIC CHARACTERISTICS OF THE COMPOSITE

4-52. *Kurbatova A.A., Gvozdik N.A., Nikitina V.A.*

NANOIMPACT EXPERIMENTS OF LITHIUM-ION INTERCALATING NANOPARTICLES FOR REDOX FLOW BATTERIES WITH SOLID BOOSTERS

4-53. *Kurkin N.A., Tomina E.V., Pavlenko A.A., Cherednichenko I.S., Konkina D.A., Volkov A.S., Doroshenko A.V.*

SYNTHESIS AND CATALYTIC PROPERTIES OF SPINEL FERRITES

4-54. *Latch E.A., Lobova N.A., Aleksandrova N.A., Vedernikov A.I., Gromov S.P.*

THE INFLUENCE OF MICROENVIRONMENT ON BEHAVIOUR OF CROWN-CONTAINING STYRYL DYES

4-55. *Levkeovich E.A., Zakalyukin R.M., Kumskov A.S.*

SINGLE-WALLED CARBON NANOTUBES FILLED WITH THE $\text{SbI}_3\text{-Sb}_2\text{S}_3$ EUTECTIC COMPOSITION

4-56. *Levshakova A.S., Gordeychuk D.I., Khairullina E.M., Panov M.S., Shishov A.Yu., Tumkin I.I.*

HIGH RATE LASER DEPOSITION OF NICKEL-GRAPHENE OXIDE COMPOSITES FROM DEEP EUTECTIC SOLVENTS

4-57. *Livshitz S.O., Zaborova O.V., Sergeyev V.G.*

SYNTHESIS OF COPPER NANOPARTICLES IN LIPOSOME

4-58. *Maksimova E.A., Barmin R.A., Rudakovskaya P.G., Gorin D.A.*

AIR-FILLED ALBUMIN MICROBUBBLES STABILIZED WITH GOLD NANOPARTICLES AND PHOTODYNAMIC DYE FOR THERANOSTICS DEMANDS

4-59. *Medvedeva A.A., Ionova I.V., Shtykova E.V., Koshkin A.V.*

STUDY OF THE SOL-GEL PROCESS BASED ON WATER-SOLUBLE PRECURSOR BY MEANS OF FLUORESCENT, SAXS AND EPR METHODS

4-60. *Medvedev V.A., Mamonova D.V., Kolesnikov I.E., Mikhailov M.D., Manshina A.A.*
LUMINESCENCE KINETICS AND ENERGY TRANSFER IN $\text{YVO}_4\text{:Tm}^{3+}, \text{Nd}^{3+}, \text{Er}^{3+}$ NANOPARTICLES

4-61. *Merkushev D.A., Banakova E.A., Usoltsev S.D., Marfin Yu.S.*

SINGLE-WALLED CONCENTRATION EFFECTS ON BODIPY AGGREGATION

4-62. *Monzharenko M.A., Markova M.E., Stepacheva A.A., Matveeva V.G., Sulman M.G.*

SILICA-MODIFIED POLYMERIC CATALYSTS FOR HEAVY OIL FRACTION CONVERSION IN SUPERCRITICAL SOLVENTS

4-63. *Mukhamatdinov I.I., Salih I.Sh.S., Rakhmatullin I.Z., Ignashev N.E.*

STUDY OF RESINS FRACTIONAL COMPOSITION BY NMR METHOD

4-64. *Murashko A.M., Filippov Ya.Yu.*

**STEREOLITHOGRAPHY 3D PRINTED CALCIUM PYROPHOSPHATE
MACROPOROUS CERAMICS FOR BONE GRAFTING**

4-65. *Naifert S.A.*

FEATURES OF THERMOLYSIS OF AROMATIC COMPOUNDS

4-66. *Navrotskaya A.G., Aleksandrova D.D., Chekini M., Yakavets I., Kheiri S., Krivoschapkina E.F., Kumacheva E.*

**3D PRINTING OF OPTICALLY ACTIVE MATERIALS BASED ON CARBON DOTS
AND CELLULOSE NANOCRYSTALS**

4-67. *Nazarov D.V., Mitrofanov I.V., Ezhov I.S., Maximov M.Yu., Popovich A.A.*

**MODIFICATION OF THE TITANIUM AND NITINOL SURFACE BY LIQUID-PHASE
CHEMICAL ETCHING AND ATOMIC LAYER DEPOSITION OF TITANIA LAYERS
AND SILVER NANOPARTICLES**

4-68. *Nesterov N.S., Filippov A.A., Martyanov O.N.*

**ADVANCED APPROACHES BASED ON SOL-GEL AND SUPERCRITICAL FLUID
METHODS FOR THE SYNTHESIS OF HETEROGENEOUS CATALYSTS**

4-69. *Nikiforova K.V., Kurapova O.Yu., Konakov V.G.*

**PHASE FORMATION IN ZIRCONIA BASED PRECURSORS OBTAINED BY
SOLVOTHERMAL TREATMENT**

4-70. *Nikitin I.A., Koptyaev A.I., Fedoseev A.N., Travkin V.V.*

**STRUCTURE, OPTICAL ABSORBANCE AND ELECTRICAL CONDUCTIVITY OF
PEROVSKITE THIN FILMS DOPED WITH QUATERNARY AMMONIUM IODIDES**

4-71. *Novoselov E.S., Nesmelov D.D., Danilovich D.P.*

CRYSTALLIZED TERNARY EUTECTICS IN THE $\text{LaB}_6\text{-W}_2\text{B}_5\text{-NbB}_2$ SYSTEM

4-72. *Orudzhev F.E., Selimov D.A., Gulakhmedov R.R., Kadiev M.V., Shuaibov A.O., Abdurakhmanov M.G., Ramazanov Sh.M., Sobola D.S.*

**MECHANISM OF PIEZOPHOTOCATALYTIC METHYLENE BLUE DECOMPOSITION
BY $\alpha\text{-Fe}_2\text{O}_3\text{@PVDF}$ NANOFIBERS FILM**

4-73. *Osipova E.V., Suvorkova I.E., Tsuji T., Ishiguro Y., Takai K., Osipov V.Yu.*

**CHELATE COPPER COMPLEXES ON THE SURFACE OF 5-NM DIAMOND
PARTICLES: SYNTHESIS AND CHARACTERISATION BY XPS AND EPR METHODS**

4-74. *Osmanova S.N., Azimova G.N., Ismailov E.H., Taghiyev D.B., Zulfugarova S.M., Thybaut J.*

**NEW TRENDS IN OXIDATIVE CONVERSION OF METHANE. EFFECT OF
CATALYST**

4-75. *Pavlova K.P., Zhivulin V.E., Starikov A.Yu., Solizoda I.A., Sherstyuk D.P., Vinnik D.A.*

Mn-DOPED BARIUM HEXAFERRITE $\text{BaFe}_{(12-x)}\text{Mn}_x\text{O}_{19}$ BY SOLID-STATE REACTION



4-76. *Peranidze K.Kh., Safronova T.V., Kil'deeva N.R.*

MATERIALS BASED ON COMPOSITE POLY(VINYL ALCOHOL)/CHITOSAN HYDROGELS AND CALCIUM SALTS FOR USE IN TISSUE ENGINEERING

4-77. *Petropavlovskii K.S., Novichenkova T.B., Petropavlovskaya V.B.*

STRUCTURE FORMATION OF SELF-REINFORCED GYPSUM

4-78. *Podrukhin J.F., Yevstropyev S.K., Bulyga D.V., Lepikhov B.J., Semench A.V., Klinkov V.A.*

SYNTHESIS OF Er^{3+} ION DOPED CRYSTAL POWDER Y_2O_3 BY POLYMER – SALT METHOD

4-79. *Popov A.L., Ermakov A.M., Popova N.R., Ivanova O.S., Abakumov M.A., Zamyatina E.A., Anikina V. A., Baranchikov A.E., Kozlova T.O., Ivanov V.K.*

DEXTRAN-COATED GADOLINIUM-DOPED CERIUM OXIDE NANOPARTICLES AS MRI CONTRAST AGENTS WITH HIGH T1 RELAXIVITY AND SELECTIVE ANTICANCER ACTIVITY

4-80. *Popova V.G.*

PHOTOVOLTAIC DEVICES BASED ON POLYOXOMETALATES WITH NOBLE METALS

4-81. *Postnikov P.S., Guselnikova O.A., Semyonov O.V.*

SURFACE METAL-ORGANIC FRAMEWORKS TOWARDS ENVIRONMENTAL MATERIALS SCIENCE

4-82. *Pozdeeva T.Yu., Porozova S.E., Vokhmyanin D.S.*

MAGNETIC STRUCTURING OF MULTI-WALLED CARBON NANOTUBES IN LIQUID MEDIUMS

4-83. *Pozhitkova A.V., Kladko D.V., Vinogradov V.V.*

MAGNETIC REPROGRAMMABLE SOFT CATHETERS FOR ADVANCED THROMBOSIS THERAPY

4-84. *Rashitova K.I., Kirsanov D.O., Osmolovskaya O.M.*

MODIFICATION OF PVC PLASTICIZED MEMBRANES USING Fe_3O_4 @HAp NANOPARTICLES FOR ANION-SELECTIVE SENSING

4-85. *Ratovskiy V.Y., Nigaard R.R., Kaul A.R.*

SYNTHESIS, STRUCTURE AND PROPERTIES OF THIN FILM MULTIFERROIC MATERIALS BASED ON HEXAGONAL LUTETIUM FERRITE

4-86. *Rubtsova M.I., Boev S.S., Glotov A.P.*

SYNTHESIS OF LOW-SILICA ZEOLITES FROM NATURAL HALLOYSITE NANOTUBES

4-87. *Sadykov T.T., Andriianova A.N., Mustafin A.G.*

SYNTHESIS OF A NEW POLYANILINE-BASED COMPOSITE



4-88. *Sazanova T.S., Mochalov L.A., Logunov A.A., Kudryashov M.A., Fukina D.G., Yunin P.A., Vorotyntsev I.V.*

INFLUENCE OF PLASMA PARAMETERS ON THE SIZE AND MORPHOLOGICAL CHARACTERISTICS OF DEPOSITED ZINC OXIDE NANOPARTICLES

4-89. *Selimov D.A., Gulakhmedov R.R., Abdurakhmanov M.G., Shuaibov A.O., Kadiev M.V., Orudzhev F.F., Ramazanov Sh.M., Sobola D.S.*

ENHANCED PIEZOPHOTOCATALYTIC DECOMPOSITION OF METHYLENE BLUE BY α -Fe₂O₃ CONTAINING PVDF NANOFIBERS

4-90. *Shakhgildyan G.Yu., Lipatiev A.S., Fedotov S.S., Vetchinnikov M.P., Lotarev V.N., Sigaev S.V.*

DIRECT LASER WRITING OF OPTICAL WAVEGUIDES WITH PRECIPITATED SILVER NANOPARTICLES IN ZINC PHOSPHATE GLASS

4-91. *Shestakov M.S., Shvidchenko A.V., Yudina E.B., Besedina N.A., Koniakhin S.V., Kirilenko D.A., Dideikin A.T.*

DETONATION NANODIAMOND DEAGGLOMERATION IN SONICATION ASSISTED ADVANCED OXIDATION PROCESS

4-92. *Shumilkin A.S., Vernaya O.I., Semenov A.M., Shabatina T.I.*

CRYOCHEMICAL SYNTHESIS OF MAGNETITE AND MAGHEMITE NANOPARTICLES AND THEIR HYBRID COMPOSITES WITH DIOXIDINE

4-93. *Silyavka E.S., Selytin A.A., Podolskaya E.P.*

SALTS SELF-ORGANIZATION OF ALKALINE EARTH ELEMENTS AND FATTY ACIDS ON THE SURFACE OF THE AQUEOUS SUBPHASE

4-94. *Sitko A.V., Mashukova Yu.A., Ponomareva M.A., Cheremisina O.V.*

INVESTIGATION OF THE SORPTION CHARACTERISTICS OF A NEW BIOMATERIAL IN RELATION TO ORGANIC SUBSTANCES AND OIL PRODUCTS

4-95. *Sokolov M.R., Enakieva Y.Y., Yapryntsev A.D., Shiryayev A.A., Zvyagina A.I., Kalina M.A.*

INTERCALATION OF PORPHYRIN-BASED METAL-ORGANIC FRAMEWORK IN LAYERED EUROPIUM HYDROXIDE: A SYMBIMETIC HYBRID MATERIAL

4-96. *Solodovnikova P.A., Mashkovtsev M.A.*

THE INFLUENCE OF PRECIPITATION pH VALUE AND TREATMENT METHOD ON ALUMINUM OXIDE SORPTION PROPERTIES

4-97. *Solomakha O.A., Stepanova M.A., Averianov I.V., Bykovskaya M.A., Gofman I.V., Rabchinskii M.K., Ryzhkov S.A., Saveliev S.D., Korzhikova-Vlakh E.G.*

MODIFICATION OF OXIDIZED GRAPHENE WITH POLY(GLUTAMIC ACID) TO OBTAIN BIOFUNCTIONAL FILLER FOR SCAFFOLDS IN BONE TISSUE ENGINEERING

4-98. *Stepanova U.A., Gorbunov I.S., Al-Mayyahi H.A., Muradova A.G.*

DEVELOPMENT OF LASER-ACTIVE MEDIA CONTAINING QUANTUM DOTS

4-99. *Stolbov D.N., Ivanov A.S., Arkhipova E.A., Savilov S.V.*

HYDROTHERMAL SYNTHESIS OF MnO₂/CNT NANOCOMPOSITES AND INVESTIGATION OF THEIR ELECTROCHEMICAL CHARACTERISTICS

4-100. *Strelnikov A.S., Smirnov A.N., Pyzuk A.M., Solovyeva E.V.*

SYNTHESIS AND OPTICAL STUDY OF PLASMONIC NANOPARTICLE AGGLOMERATES WITH MODIFIERS OF CYCLE TYPE

4-101. *Sulman A.M., Grebennikova O.V., Matveeva V.G., Sulman M.G.*

MESOPOROUS MAGNETICALLY SEPARABLE OXIDES IN THE SYNTHESIS OF BIOCATALYSTS BASED ON GLUCOSE OXIDASE

4-102. *Svinko V.O., Odintsova P.V., Ivanov P.V., Solovyeva E.V.*

OPTICAL PROPERTIES AND AGGREGATIVE STABILITY OF GOLD AND SILVER NANOPARTICLES MODIFIED WITH DICARBOXYTOLANE

4-103. *Syukkalova E.A., Demidova N.D., Sadetskaya A.V., Osmolowsky M.G., Bobrysheva N.P., Voznesenskiy M.A., Osmolovskaya O.M.*

IN SITU MODIFIED HYDROXYAPATITE NANOPARTICLES WITH DIFFERENT MORPHOLOGY AS A PERSPECTIVE STABILIZER OF PICKERING EMULSION

4-104. *Nestroinaia O.V., Tarasenko E.A., Lebedeva O.E.*

STUDY OF THE EFFECT OF SYNTHESIS CONDITIONS ON THE SORPTION PROPERTIES OF MAGNETIC MATERIALS BASED ON LAYERED DOUBLE HYDROXIDES

4-105. *Tudupova B.B., Shvidchenko A.V.*

PROPERTIES OF AQUEOUS MIXTURES BASED ON GRAPHENE OXIDE AND DETONATION NANODIAMONDS

4-106. *Vasileva A.A., Manshina A.A.*

ANODIC ALUMINUM OXIDE NANOMEMBRANES FOR CREATION OF ELECTROCATALYTICALLY ACTIVE STRUCTURES

4-107. *Vilkov I.V., Ketkov S.Yu., Obiedkov A.M., Aborkin A.V.*

MOCVD SYNTHESIS OF HYBRID NANOMATERIAL MoOC/MWCNT

4-108. *Viushkova I.B.*

PROSPECTS AND METHODS OF CHARACTERIZATION OF NANO-AEROSOLS

4-109. *Voskanyan I.A., Kamensky M.A., Eliseeva S.N., Osmolovskaya O.M.*

Co₃O₄ NANOPARTICLES MODIFIED ELECTRODES FOR THE DETERMINATION OF HYDROQUINONE IN WINE

4-110. *Yadykova A.Y., Gorbacheva S.N., Ilyin S.O.*

APPLICATION OF NANOCELLULOSE TO REDUCE THE VISCOSITY OF HEAVY CRUDE OIL AND PREPARING BITUMEN EMULSIONS

4-111. *Yoshidomi K., Mizoshiri M.*

OXIDATION CONTROL USING PULSE BURST IRRADIATION IN FEMTOSECOND LASER-REDUCTIVE SINTERING OF Cu MICROPATTERNING



4-112. Zaborova O.V.

NONDESTRUCTIVE ADSORPTION OF LIPOSOMES ON THE SOLID SURFACES

4-113. Zaytsev O.I., Molodkina E.B., Ehrenburg M.R., Rudnev A.V.

UNDERPOTENTIAL AND OVERPOTENTIAL DEPOSITION OF COPPER ON A PT(111) SINGLE CRYSTAL FROM DEEP EUTECTIC SOLVENTS

4-114. Zheltova V.V., Vlasova A.A., Bobrysheva N.P., Abdullin I.R., Semenov V.G., Osmolowsky M.G., Voznesenskiy M.A., Osmolovskaya O.M.

EFFECT OF DOPED HYDROXYAPATITE SHELL ON THE MAGNETIC PROPERTIES AND THE MRI SIGNAL OF MAGNETITE NANOPARTICLES

4-115. Zhivulin V.E., Gudkova S.A., Punda A.Yu., Trofimov E.A., Vinnik D.A.

THE NOVEL HIGH-ENTROPY CERAMICS WITH A PEROVSKITE STRUCTURE SYNTHESIS

4-116. Zirnik G.M., Chernukha A.S.

PHOTOCATALYST FOR HIGH-PERFORMANCE H₂ PRODUCTION: MOLECULAR-DOPED CARBON NITRIDE



ORGANIC AND BIOMEDICAL CHEMISTRY

Mendeleevskaya line, 5, lit. A, room 24

CHAIRMAN: Dr. Olga Bakulina, Institute of Chemistry, SPbU

SECRETARIES: Ms. Ekaterina Levashova, Institute of Chemistry, SPbU

Mr. Andrey Firsov, Institute of Chemistry, SPbU

ORAL REPORTS

Tuesday, 7th September

10:00 - 10:25 KEYNOTE SPEAKER	<u><i>Nakamura H.</i></u> , <i>Tsushima M.</i> , <i>Matsumura M.</i> , <i>Sato S.</i> TYROSINE RESIDUE-SPECIFIC CHEMICAL MODIFICATION AND ITS APPLICATION
10:25 - 10:40	<u><i>Ledovskaya M.S.</i></u> , <i>Voronin V.V.</i> , <i>Rodygin K.S.</i> , <i>Lebedev A.N.</i> , <i>Ananikov V.P.</i> CALCIUM CARBIDE IN THE SYNTHESIS OF HETEROCYCLES
10:40 - 10:55	<u><i>Vidiakina A.A.</i></u> , <i>Danilkina N.A.</i> NEW FLUORESCENT SPAAC REAGENT BASED ON OXACYCLONONYNE FUSED TO ISOCUMARIN
10:55 - 11:10	<u><i>Morita T.</i></u> , <i>Yugandar S.</i> , <i>Nakamura H.</i> NOVEL DIRECT FUNCTIONALIZATION AND PHOTOCHEMICAL REACTION OF ISOXAZOLES
11:10 - 11:25	<u><i>Khramtsova E.E.</i></u> , <i>Maslivets A.N.</i> DIVERSITY-ORIENTED SYNTHESSES VIA REACTIONS OF [e]- FUSED 1H-PYRROLE-2,3-DIONES
11:50 - 12:05	<u><i>Stebenkov V.D.</i></u> , <i>Obydenov D.L.</i> , <i>Sosnovskikh V.Y.</i> REACTIONS OF 4-PYRONES WITH AZOMETHINE YLIDES AS A CHEMOSELECTIVE METHOD FOR THE CONSTRUCTION OF MULTISUBSTITUTED PYRANO[2,3-<i>c</i>]PYRROLIDINES
12:05 - 12:20	<u><i>Salikov R.E.</i></u> , <i>Tomilov Y.V.</i> ELECTROCYCLIC REACTIONS IN SEVEN-MEMBERED SYSTEMS: TOWARDS INNOVATIVE FUNCTIONAL MATERIALS
12:20 - 12:35	<u><i>Melnik M.V.</i></u> , <i>Mikhaylov V.N.</i> INVESTIGATION OF METAL-PROMOTED REACTION OF NUCLEOPHILIC ADDITION OF N-ALKYNYLATED AMINES TO <i>BIS</i>-ISOCYANIDE COMPLEXES OF PALLADIUM(II) AND PLATINUM(II) AS A METHOD FOR SYNTHESIS OF ALKYNYLATED ACYCLYC DIAMINOCARBENE COMPLEXES

12:35 - 12:50 *Teslenko F.E., Larin A.A., Malyshev V.I., Medvedev M.G., Fershtat L.L., Makhova N.N.*

MECHANISTIC FEATURES IN FORMATION OF FUROXANYL IMINES MATERIALS

12:50 - 13:05 *Zemtsov A.A., Kostromitin V.S., Levin V.V., Kokorekin V.A., Dilman A.D.*

NOVEL METHODS OF SINGLE-ELECTRON ACTIVATION OF C-X BONDS BY PHOTOREDOX CATALYSIS ALKYNATED ACYCLIC DIAMINOCARBENE COMPLEXES

14:40 - 14:55 *Petropavlovskikh D.A., Vorobyeva D.V., Osipov S.N.*

Rh(III)-CATALYSED C-H ACTIVATION/ANNULATION OF ARYL HYDROXAMATES WITH CF₃-CONTAINING α -PROPAGYLE α -AMINO ACID DERIVATIVES

14:55 - 15:10 *Novikov M.A., Bobrova A.Yu., Tomilov Yu.V.*

STEREOSELECTIVE SYNTHESIS OF BIOLOGICALLY RELEVANT FLUOROALKENES VIA 2 FLUOROALLYL METAL INTERMEDIATES

15:10 - 15:25 *Burmistrov V.V.*

SYNTHESIS OF SUPRAMOLECULAR COMPLEXES OF CYCLODEXTRINS WITH BICYCLIC AND CAGE COMPOUNDS - NEW SERIES OF ENCAPSULATED SOLUBLE EPOXIDE HYDROLASE INHIBITORS WITH ENHANCED BIOAVAILABILITY

15:25 - 15:40 *Telezhkin A.A., Volkov P.A., Khrapova K.O.*

THE UNEXPECTED 2,4-MIGRATION IN SNH REACTION OF PYRIDINES WITH PHOSPHINE OXIDES STIMULATED BY ELECTRON-DEFICIENT ACETYLENES

15:40 - 15:55 *Andreev I.A., Ratmanova N.K., Ivanova O.A., Trushkov I.V.*

TRIPLE ROLE OF THIOCYANATE-CONTAINING PROTIC IONIC LIQUIDS: REAGENT, CATALYST, AND SOLVENT

Thursday, 9th September

10:00 - 10:25

**KEYNOTE
SPEAKER**

De Brabander, J.K.

DISCOVERY, TARGET IDENTIFICATION AND VALIDATION OF SMALL MOLECULES THAT AFFECT CELL PROLIFERATION

10:25 - 10:40

Yadykov A.V., Eremchenko A. E., Sonin I. V., Shirinian V.Z.

SWITCHING THE CYCLIZATION OF POLARIZED DIVINYLKETONES: KINETIC, ACID AND STERIC CONTROL



10:40 - 10:55

Tarbeeva D.V., Fedoreyev S.A., Krylova N.V., Iunikhina O.V., Berdyshev D.V.

BIOLOGIACALLY ACTIVE POLYPHENOLIC COMPOUNDS FROM LESPEDEZA BICOLOR

10:55 - 11:10

Boichenko M.A., Ivanova O.A., Trushkov I.V.

RING-OPENING OF DONOR-ACCEPTOR CYCLOPROPANES WITH N-NUCLEOPHILES IN THE SYNTHESIS OF HETEROCYCLES

11:30 - 11:45

Vil' V.A., Barsegyan Ya.A., Semenov E.A., Kuhn L., Alabugin I.V., Terent'ev A.O

SYNTHESIS OF STABLE CRIEGEE INTERMEDIATES

11:45 - 12:00

Runikhina S.A., Ostrovskii V. S., Podyacheva E., Tsygankov A. A., Biriukov K., Kharitonov V. B., Afanasyev O. I., Loginov D., Chusov D.

CARBON MONOXIDE AS A POWERFUL TOOL IN CATALYTIC REDUCTIVE ADDITION

12:00 - 12:15

Avdeev D.V., Ovchinnikov M.V., Molokoedov A.S., Sidorova M.V.

STUDY OF THE CYCLIZATION OF OXYTOCIN AND DESAMINOXYTOCIN IN THE SOLID SUPPORT

12:15 - 12:30

Nikanshina E.O., Gryaznova T.V., Kholin K.V, Budnikova Y.H.

NEW APPROACH TO OBTAIN IMPORTANT HETEROAROMATIC ORGANOPHOSPHORUS COMPOUNDS

12:30 - 12:45

Ilyushchenko M.K., Salikov R.F., Tomilov Yu.V.

SYNTHESIS OF POLYSUBSTITUTED SEVEN-MEMBERED SYSTEMS VIA CASCADE REACTIONS OF (DI(METHOXYCARBONYL)VINYLYL)PYRIDINIUM

12:45 - 13:00

Tonkoglazova D. I., Gulevskaya A.V

AZINE-[n]HELICENE HYBRIDS: SYNTHESIS AND PROPERTIES

14:30 - 14:45

Arsenyev M.V., Zhiganshina E.R., Chesnokov S.A.

UTILIZING O-QUINONE METHIDE CHEMISTRY: SYNTHESIS OF STERICALLY HINDERED CATECHOLS, QUINONES AND ACRIDIN-4-OLS

14:45 - 15:00

Sergeev P.G., Novikov R.A., Tomilov Yu.V.

LEWIS ACID-CATALYZED FORMAL (4+2)- AND (2+2+2)-CYCLOADDITION BETWEEN 5-AZADIENES AND STYRYLMALONATES AS ANALOGUES OF DONOR-ACCEPTOR CYCLOPROPANES

15:00 - 15:15 *Yaremenko I.A., Belyakova Yu.Yu., Radulov P.S., Medvedev M.G., Tsogoeva S.B., Alabugin I.V., Terent'ev A.O.*

HOW TO COMBINE PEROXIDE AND NITROGEN IN A HETEROCYCLE?

15:15 - 15:30 *Shchegravina E.S., Tretiakova D.S. Svirshchevskaya E.V., Boldyrev I.A., Fedorov A.Yu.*

HIGHLY POTENT ALLOCOLCHICINE DERIVATIVES AND THEIR PHOSPHOLIPIDIC PRODRUGS FOR INCORPORATION IN ENZYMATICALLY-TRIGGERED LIPOSOMES

15:30 - 15:45 *Shchepochkin A.V., Chupakhin O.N.*

USE OF ELECTROCHEMISTRY IN THE REACTION OF DIRECT C-H FUNCTIONALIZATION OF HETEROCYCLIC STRUCTURES

FLASH-ORAL REPORTS

Wednesday, 8th September

10:00 - 10:05 *Badretdinova V.T., Serykh T.A.*

ANTIBACTERIAL ACTIVITY OF CALCIUM PHOSPHATE WITH THE ADDITION OF ANTIBIOTICS

10:05 - 10:10 *Tsuda M., Morita T., Fukuhara S., Nakamura H.*

GOLD(I)-CATALYZED INTRAMOLECULAR ELECTROPHILIC AROMATIC SUBSTITUTION OF ISOXAZOLES

10:10 - 10:15 *Sachkova A.A., Shchegravina E.S., Fedorov A.Yu., Andreeva D.V., Tikhomirov A.S., Shchekotikhin A.E.*

CABOZANTINIB-BASED PROTACS SYNTHESIS

10:15 - 10:20 *Pokidova O.V., Emel'yanova N.S., Psikha B.L., Tatyanyanenko L.V., Kotelnikov A.I., Sanina N.A.*

CATIONIC DINITROSYL IRON COMPLEXES WITH THIOUREA DERIVATIVES: TRANSFORMATION IN AQUEOUS SOLUTIONS AND INFLUENCE ON THE ENZYMATIC ACTIVITY OF PHOSPHODIESTERASE

10:20 - 10:25 *Segida O.O., Fedorova U.V., Antonova L.S., Paveliev S.A., Terent'ev A.O.*

ELECTROCHEMICAL OXIDATIVE C-O AND N-O COUPLING OF VINYL AZIDES WITH N-HYDROXYPHthalimide

10:25 - 10:30 *Sorokin S.P.*

NOVEL 3-CYANO-SUBSTITUTED STYRYLPYRIDONES: SYNTHESIS AND OPTICAL PROPERTIES



10:30 - 10:35

Tolochenko D.O., Antonov A.S.

PERI-DILITHIONAPHTHALENES IN THE SYNTHESIS OF 4H-BENZO[de]ISOQUINOLINES

10:35 - 10:40

Zharkov M.N., Ivanov R.E.

RADICAL C-NITRATION BY NO₂ IN SUPERCRITICAL CO₂ MEDIUM

10:40 - 10:45

Anisovich K.V., Rybakov V.B., Trushkov I.V., Ivanova O.A.

REACTIONS OF DONOR-ACCEPTOR CYCLOPROPANES WITH HYDRAZINES: SYNTHESIS OF 5- AND 6-MEMBERED AZAHETEROCYCLES

10:45 - 10:50

Prikhodchenko T.R., Balakina A.A., Amozova V.I., Mumyatova V.A., Stupina T.S., Neganova M.E., Yakushev I.A., Kornev A.B., Gadomsky S.Ya., Fedorov B.S., Mishchenko D.V.

SYNTHESIS AND BIOLOGICAL ACTIVITY OF A PYRIDOXINE DERIVATIVE WITH NO-DONOR PROPERTIES

10:50 - 10:55

Romadina E.I., Stevenson K.J.

TRIARYLAMINE-BASED MATERIALS AS PROMISING CATHOLYTES FOR NON-AQUEOUS REDOX FLOW BATTERIES

10:55 - 11:00

Sysoeva A.A., Novikov A.S., Il'in M.V., Suslonov V.V., Bolotin D.S.

PREDICTION OF CATALYTIC ACTIVITY OF AZOLIUM-BASED HALOGEN BOND DONORS: AN EXPERIMENTALLY VERIFIED THEORETICAL STUDY

11:00 - 11:05

Polivanovskaia D.A., Birin K.P., Gorbunova Yu.G., Tsivadze A.Yu.

NEW DICATIONIC PORPHYRINS FOR ANTIMICROBIAL PHOTODYNAMIC THERAPY

11:05 - 11:10

Kuzmina N.S., Otvagin V.F., Maleev A.A., Nyuchev A.V., Fedorov A.Yu.

SYNTHESIS OF PHOTOCLEAVABLE PORPHYRIN-COMBRETASTATIN CONJUGATES FOR COMBINED THERAPY OF CANCER

11:10 - 11:15

Girich E.V., Dyshlovoy S.A., Yurchenko E.A., Yurchenko A.N.

TRYPEPTIDE AND BIS-INDOLBENZOQUINONE DERIVATIVES FROM VIETNAMESE STRAIN OF MARINE-DERIVED FUNGUS ASPERGILLUS TERREUS

11:15 - 11:20

Komarov V.V., Mezhenkova T.V.

INTERACTION OF PERFLUOROBENZOCYCLOBUTENE WITH ISOMERIC TETRAFLUOROBENZENES IN SbF₅ MEDIUM

POSTER SESSION

Wednesday, 8th September, 11:30-12:45

5-1. *Akhmetova A.A., Shulaeva L.V., Bakieva E.R., Shamsutdinova L.P.*

SYNTHESIS AND CHEMICAL PROPERTIES OF WATER-SOLUBLE DERIVATIVE STERICALLY HINDERED PHENOLS

5-2. *Antonov N.S., Pankova A.S., Golubev P.R.*

SYNTHESIS OF 2-METHYLIDENEPYRROL-3-ONES FROM DIYNONES AND AMINES

5-3. *Antonova L.S., Paveliev S.A., Terent'ev A.O.*

NEW PARADIGM IN HYPERVALENT IODINE CHEMISTRY: ELECTROCATALYTIC OXIDATIVE C-N COUPLING

5-4. *Apalkova E.A., Bulygina A.V., Kuzmina A.V., Pistsova A.L., Shamsutdinova L.P., Gazizov M.B.*

RESEARCH OF PROPERTIES AND BIOLOGICAL ACTIVITY OF P-, S- DERIVATIVES OF HINDERED PHENOLS

5-5. *Arakelyan M.*

SYNTHESIS OF PUSH-PULL SYSTEMS BASED ON 1,2,4-TRIAZOLO[1,5-*d*]PYRIMIDINE

5-6. *Babushkina A.A., Mikhaylov V.N., Novikov A.S., Zakharova I.O., Shpakov A.O.*

SYNTHESIS AND BIOASSAY OF 6-HALOCINNOLINONES AS POTENTIAL PTP1B INHIBITORS

5-7. *Bedenko S.P., Dement'ev K.I., Tret'yakov V.F.*

KINETIC STUDY OF PROPYLENE-FORMALDEHYDE CONDENSATION OVER THE H-BEA ZEOLITE CATALYST

5-8. *Belova A.S., Kononevich Yu.N., Ionov D.S., Sazhnikov V.A., Shchegolikhina O.I., Muzafarov A.M.*

INTRAMOLECULAR EXCIMER FORMATION IN STEREOREGULAR TETRAMERIC CYCLOSILOXANES CONTAINING DIBENZOYLMETHANATOBORON DIFLUORIDE

5-9. *Belysheva M.N., Derkach K.V., Shpakov A.O., Sorokoumov V.N.*

DEVELOPMENT OF APPROACHES TO THE SYNTHESIS OF THIENO[2,3-*d*]PYRIMIDINE DERIVATIVES AS THYROID-STIMULATING HORMONE RECEPTOR TRANSMEMBRANE ALLOSTERIC SITE LIGANDS

5-10. *Bogdanova A.N., Mukhina Yu.V., Pushkina K.A., Vakhrusheva E.D., Aleksandrova E.A., Trishin Yu.G.*

SYNTHESIS OF NOVEL N, O - MACROCYCLIC LIGANDS CONTAINING POSPHINE OXIDE GROUPS AS PENDANT - ARMS



5-11. *Borisova M.A., Ryabukhin D.S., Vasilyev A.V.*

SUPERELECTROPHILIC ACTIVATION 5-VINYL-PYRROLIDINE-2-ONE IN REACTION WITH ARENES

5-12. *Bortnevskaya Yu.S., Savelyeva I.O., Mironov A. F., Bragina N.A., Feofanov A.V., Ignatova A.A., Shmigol T.A., Zhdanova K.A.*

SYNTHESIS AND PROPERTIES OF CATIONIC MESO-ARYLPORPHYRINS FOR ANTIBACTERIAL PHOTODYNAMIC THERAPY

5-13. *Bulanova S.A., Tajik A., Vakhin A.V., Denisenko A.N., Glyavin M.Yu., Krapivnitckaya T.O., Peskov N. Yu., Zelentsov S.V.*

COMPARISON BETWEEN CATALYTIC AND NON-CATALYTIC PYROLYSIS OF CAUSTOBIOLITHS

5-14. *Bystrov D.M., Fershtat L.L.*

NOVEL METHODS FOR THE SYNTHESIS AND TRANSFORMATION OF FUNCTIONALLY SUBSTITUTED 5-TETRAZINES

5-15. *Chekunkov E.V., Minzanova S.T., Mironova L.G., Voloshina A.D., Milyukov V.A.*

NEW PECTIN COMPLEXES WITH TETRACYCLINE: SYNTHESIS, PROPERTIES AND ANTIMICROBIAL ACTIVITY

5-16. *Chernikova P.A., Chernikova E.Y., Fedorov Y.V., Fedorova O.A.*

SELF-ESSEMBLED BINARY AND TERNARY COMPLEXES BETWEEN STYRYL DYES, DNA AND CUCURBIT[7]URIL

5-17. *Chernomyz M.S., Lvova M.Yu., Novikova D.S.*

STUDY ON ELECTRONIC CHARACTERISTICS OF SOME 3-ALKENYL-OXINDOLES BY ABSORPTION SPECTROSCOPY

5-18. *Chubynin N.A., Urazaev E.I., Pistsova A.L., Ibragimova D.A., Alexanyan A.R., Alexanyan K.G., Shamsutdinova L.P.*

RESEARCH ON THE APPLIED PROPERTIES OF DERIVATIVES OF SPATIALLY HINDERED PHENOLS

5-19. *Demina N.S., Rusinov G.L.*

SYNTHESIS OF SELENOPHENO[3,2-*b*]THIOPHENE-BASED COMPOUNDS USING SODIUM SELENIDE

5-20. *Dzyubenko V.V., Ryabukhin D.S.*

REACTIONS OF 3,3,3-TRIFLUORO-5-PHENYLPROP-5-YNE WITH ARENES IN ZEOLITE CBV-720

5-21. *Efremova A.V., Kononevich Yu.N., Pakhomov A.A., Ionov D.S., Muzafarov A.M.*

SYNTHESIS AND PROPERTIES OF MULTIFLUOROPHORIC RED FLUORESCENT DYES BASED ON BODIPY

5-22. *Ershova A.I., Nasakin O.E.*

SYNTHESIS AND OPTICAL PROPERTIES OF THIENO[2,3-*b*]PYRIDINE DERIVATIVES

5-23. *Fedorova U.V., Segida O.O., Paveliev S.A., Terent'ev A.O.*

SELECTIVE FUNCTIONALIZATION OF VINYL AZIDES WITH N-OXYL RADICALS

5-24. *Filatov A.S., Stepakov A.V.*

THE FORMAL [4+2]-CYCLOADDITION OF N-ACYLIMINIUM CATIONS TO ALKENES AS A CONVENIENT APPROACH TO THE SYNTHESIS OF QUINOLINO[1,2-*c*]QUINAZOLIN-6-ONE DERIVATIVES

5-25. *Firsov A.A., Bakulina O.Yu.*

SYNTHESIS OF ANHYDRIDES OF 1,5-DIOXIDE 4-(CARBOXYMETHYL)-2-ARYLSOETHIAZOLIDINE-5-CARBOXYLIC ACIDS AND STUDY OF THEIR ACTIVITY IN THE CASTAGNOLI-CUSHMAN REACTION

5-26. *Gabov I.S., Pestov A.V.*

THE REACTIVITY OF ETHYLENE CARBONATE DERIVATIVES TOWARD TO IMIDAZOLES

5-27. *Geyl K.K., Semenov A.V., Soldatova N.S., Baykov S.V., Postnikov P.S.*

COPPER-CATALYZED REACTION OF OXADIAZOLONES WITH DIARYLIODONIUM SALTS

5-28. *Gharibyan V.K., Danagulyan G.G.*

SYNTHESIS OF AZOLOPYRIMIDINES BY THE REACTIONS OF ETHOXYMETHYLIDENE DICARBONYL COMPOUNDS WITH AMINOAZOLES

5-29. *Glushko V.V., Serkova O.S., Kudryavtseva M.P., Maslennikova V.I.*

THE FORMATION OF HYBRID RECEPTORS AND DENDRIMER-LIKE STRUCTURES BASED ON RCTT CALIX[4]RESORCINARENE

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5-139. *Pokidova O.V., Emel'yanova N.S., Psikha B.L., Tatyanyenko L.V., Kotelnikov A.I., Sanina N.A.*

CATIONIC DINITROSYL IRON COMPLEXES WITH THIOUREA DERIVATIVES: TRANSFORMATION IN AQUEOUS SOLUTIONS AND INFLUENCE ON THE ENZYMATIC ACTIVITY OF PHOSPHODIESTERASE

5-140. *Sorokin S.P.*

NOVEL 3-CYANO-SUBSTITUTED STYRYLPYRIDONES: SYNTHESIS AND OPTICAL PROPERTIES

5-141. *Tolochenko D.O., Antonov A.S.*

PERI-DILITHIONAPHTHALENES IN THE SYNTHESIS OF 4H-BENZO[DE]ISOQUINOLINES

5-142. *Zharkov M.N., Ivanov R.E.,*

RADICAL C-NITRATION BY NO₂ IN SUPERCRITICAL CO₂ MEDIUM

5-143. *Anisovich K.V., Rybakov V.B., Trushkov I.V., Ivanova O.A.*

REACTIONS OF DONOR-ACCEPTOR CYCLOPROPANES WITH HYDRAZINES: SYNTHESIS OF 5- AND 6-MEMBERED AZAHETEROCYCLES

5-144. *Prikhodchenko T.R., Balakina A.A., Amozova V.I., Mumyatova V.A., Stupina T.S., Neganova M.E., Yakushev I.A., Kornev A.B., Gadomsky S.Ya., Fedorov B.S., Mishchenko D.V.*

SYNTHESIS AND BIOLOGICAL ACTIVITY OF A PYRIDOXINE DERIVATIVE WITH NO-DONOR PROPERTIES

5-145. *Romadina E.I., Stevenson K.J.*

TRIARYLAMINE-BASED MATERIALS AS PROMISING CATHOLYTES FOR NON-AQUEOUS REDOX FLOW BATTERIES

5-146. *Sysoeva A.A., Novikov A.S., Il'in M.V., Suslonov V.V., Bolotin D.S.*

PREDICTION OF CATALYTIC ACTIVITY OF AZOLIUM-BASED HALOGEN BOND DONORS: AN EXPERIMENTALLY VERIFIED THEORETICAL STUDY

5-147. *Polivanovskaia D.A., Birin K.P., Gorbunova Yu.G., Tsivadze A.Y.*

NEW DICATIONIC PORPHYRINS FOR ANTIMICROBIAL PHOTODYNAMIC THERAPY

5-148. *Kuzmina N.S., Otvagin V.F., Maleev A.A., Nyuchev A.V., Fedorov A.Yu.*

SYNTHESIS OF PHOTOCLEAVABLE PORPHYRIN-COMBRETASTATIN CONJUGATES FOR COMBINED THERAPY OF CANCER

5-149. *Girich E.V., Dyshlovoy S.A., Yurchenko E.A., Yurchenko A.N.*

TRYPEPTIDE AND BIS-INDOLBENZOQUINONE DERIVATIVES FROM VIETNAMESE STRAIN OF MARINE-DERIVED FUNGUS ASPERGILLUS TERREUS

5-150. *Komarov V.V., Mezhenkova T.V.*

INTERACTION OF PERFLUOROBENZOCYCLOBUTENE WITH ISOMERIC TETRAFLUOROBENZENES IN SbF₅ MEDIUM

POLYMER SCIENCE

University embankment, 7-9-11, lit. B, room 198

CHAIRMAN: Prof. Regina Islamova, Institute of Chemistry, SPbU

SECRETARY: Mr. Mikhail Dobrynin, Institute of Chemistry, SPbU

ORAL REPORTS

Tuesday, 7th September

10:00 - 10:25

**KEYNOTE
SPEAKER**
(online)

Bobrovsky A.Yu.

Professor of RAS, Principal Scientific Researcher of Chemistry
Department; Moscow State University, Russia

**PHOTOCONTROLLABLE PHOTONIC CRYSTALS BASED ON
POROUS SILICON**

10:25 - 10:40

Bezrukov N.P., Kostina J.V., Legkov S.A., Smirnova N.M.,
Antonov S.V.

**INFLUENCE OF MODIFIERS WITH FUNCTIONAL GROUPS
ON THE PROCESS OF EPOXY CURING: A STUDY BY HIGH-
TEMPERATURE FTIR**

10:40 - 10:55

Knyazeva N.A., Grishin I.D.

**NOVEL CARBORANE COMPLEXES OF RUTHENIUM IN THE
CONTROLLED RADICAL POLYMERIZATION OF METHYL
METHACRYLATE BY THE ATRP MECHANISM**

10:55 - 11:10

Faizulina Z.Z., Mukhamatgaleeva A.I., Izmailov S.R., Davletbaeva I.M.

**MODIFICATION OF HETEROGENEOUS-CHAIN POLYMERS
WITH ORGANOSUBSTITUTED SILICA DERIVATIVES**

11:10 - 11:25

Osipova O.M., Korzhikova-Vlakh E.G., Tennikova T.B.

**NOVEL pH-SENSITIVE POLYPEPTIDE NANOPARTICLES AS
DRUG CARRIERS**

11:25 - 11:40

Laishevskina S.G., Shevchenko N.N.

**POROUS POLYELECTROLYTE CRYOGEL: SYNTHESIS AND
ELECTRO SURFACE PROPERTIES**

11:50 - 12:05

Sazonov O.O., Zakirov I.N., Latul A.V., Davletbaeva I.M.

**SYNTHESIS AND STUDY OF ORGANOPHOSPHORUS
POLYURETHANE IONOMERS**

12:05 - 12:20

Preobrazhenskiy I.I., Putlyaev V.I.

**3D-PRINTING OF HYDROGEL/TRICALCIUM PHOSPHATE
COMPOSITE**

12:20 - 12:35

Shurshina A.S., Chernova V.V., Kulish E.I.

**PROLONGED DRUG DELIVERY SYSTEM BASED ON
POLYVINYL ALCOHOL**



12:35 - 12:50

Orlova A.M., Tsegelskaya A.Yu., Alentiev A.Yu., Kuznetsov A.A.
**NOVEL POLYETHERIMIDES BASED ON
DIETHYLTOLUYLENEDIAMINE: SYNTHESIS,
PHYSICOCHEMICAL AND GAS TRANSPORT PROPERTIES**

12:50 - 13:05

Antonov N.S., Dobrynin M.V., Islamova R.M.
**CHARACTERIZATION OF LUMINESCENT SILICONE
RUBBERS, THAT WERE OBTAINED BY CATALYSTS [Pt(ppy)
(OAc)(PPh₃)] AND [Pt(ppy)(NO₃)(PPh₃)]**

13:05 - 13:20

Kolesnikov T.I., Tsegelskaya A.Y., Kuznetsov A.A.
**DEVELOPMENT OF NEW THERMOSETTING OLIGOIMIDES
WITH PROPARGYL SIDE GROUPS**

14:35 - 14:50

Boychuk A., Bobrovsky A., Shibaev V., Cigl M., Pomeisl K.,
Hamplová V., Bubnov A
**STRUCTURE-PHOTOOPTICAL PROPERTY RELATIONSHIPS
IN LC POLYMETHACRYLATES WITH SIDE AZOBENZENE
GROUPS: THE ROLE OF CHIRALITY, SPACER AND
ALIPHATIC FRAGMENTS LENGTHS**

14:50 - 15:05

Kashina A.V., Ivanov I.V., Meleshko T.K., Bogorad N.N.,
Yakimansky A.V
**POLYCONDENSATION-POLYMERIZATION GRAFTED
COPOLYIMIDES WITH POLY(ε-CAPROLACTONE) SIDE
CHAINS**

15:05 - 15:20

Galimullin R.R., Kolesov S.V.
**MICROSTRUCTURE OF COPOLYMERS OBTAINED IN THE
PRESENCE OF CYCLOPENTADIENYL AND CARBONYL IRON
COMPLEXES**

15:20 - 15:35

Shpotya V.A., Perepukhov A.M., Maksimych A.V., Gomzyak V.I.,
Chvalun S.N.
**DETERMINATION OF BOLTORN-BASED BLOCK
COPOLYMERS STRUCTURE BY NMR METHODS**

15:35 - 15:50

Liamin V.P., Dmitrenko M.E., Zolotarev A.A., Penkova A.V.
**NOVEL MEMBRANES BASED ON HYDROXYETHYL
CELLULOSE FOR ENHANCED PERVAPORATION
DEHYDRATION**

Wednesday, 8th September

10:00 - 10:15

Dmitrenko M.E., Kuzminova A.I., Zolotarev A.A., Penkova A.V.
**DEVELOPMENT AND STUDY OF NOVEL MEMBRANES
BASED ON POLYAMIDE MODIFIED WITH TITANIUM OXIDE
FOR WATER TREATMENT**



10:15 - 10:30	<u>Obrezkov F.A., Stevenson K.J.</u> POLYMERIC AROMATIC AMINES AS PROMISING CATHODES FOR DUAL-ION BATTERIES
10:30 - 10:45	<u>Zakirov I.N., Sazonov O.O., Faizulina Z.Z., Saifieva A.R., Melnikov N.A., Davletbaeva I.M.</u> ORGANOPHOSPHATE POLYURETHANE MEMBRANES WITH THERMOSENSITIVE VAPOR PERMEABILITY
10:45 - 11:00	<u>Zotkin M.A., Alentiev D.A., Bermesheva E.V., Borisov I.L., Volkov A.V., Finkelstein E. Sh., Bermeshev M.V.</u> POLYNORBORNENES WITH CARBOCYCLIC SUBSTITUENTS
11:00 - 11:15	<u>Kadnikov M.V., Fetin P.A., Zorin I.M.</u> COMB-LIKE POLYELECTROLYTES FOR MICELLAR HYDROLYSIS REACTIONS
11:30 - 11:45	<u>Dulmaev S.E., Davletbaeva A.R., Klinov A.V., Malygin A.V., Davletbaeva I.M.</u> ETHANOL DEHYDRATION BY EXTRACTIVE DISTILLATION WITH AMINOETHERS OF BORIC ACID
11:45 - 12:00	<u>Elistratova A.A., Chelushkin P.S., Kritchenkov I.S., Solomatina A.I., Tunik S.P.</u> EVALUATION OF THE APPLICABILITY OF POLYMER MICELLAR PROBES BEARING NEAR-INFRARED IRIIDIUM(III) COMPLEX FOR LIFETIME OXYGEN BIOSENSING
12:00 - 12:15	<u>Alentiev D.A., Rudakova M.A., Zarezin D.P., Nikiforov R.Yu., Belov N.A., Bermeshev M.V.</u> A SIMPLE APPROACH TO POLYMER GAS SEPARATION MEMBRANES BASED ON 5-NORBORNENE-2-METHANOL DERIVATIVES
12:15 - 12:30	<u>Panaeva M.A., Bykov A.G.</u> INFLUENCE OF SYNTHETIC POLYELECTROLYTES ON THE STRUCTURE OF LIPID MONOLAYER
12:30 - 12:45	<u>Akhmetov N.O., Ovsyannikov N.A., Krasnikova I.V., Pogosova M.A., Ryazantsev S.V., Gvozdik N.A., Stevenson K.J.</u> COMPLEX INVESTIGATION OF CERAMIC-POLYMER ION-CONDUCTIVE MEMBRANES FOR HYBRID LITHIUM-TEMPO REDOX FLOW BATTERIES
12:45 - 13:00	<u>Shchurkina M.A., Mikhailova M.A., Kolchanov D.S., Kuchur O.A., Morozova S.M., Chrishtop V.V., Morozov M.I.</u> BIOMIMETIC POLYMER COATINGS FOR BIOACTIVE ION RELEASE



Thursday, 9th September

10:00 - 10:15 (online)	<i>Teterina P.S., Osipova O.M., Korzhikova-Vlakh E.G., Korzhikov-Vlakh V.A.</i> HYALURONIC ACID-graft-POLY(L-LYSINE) COPOLYMERS: SYNTHESIS AND TESTING AS siRNA DELIVERY SYSTEMS
10:15 - 10:30 (online)	<i>Didenko T.A.</i> WATER PURIFICATION FROM PRIMARY MICROPLASTICS
10:30 - 10:45 (online)	<i>Iudin D.V., Korzhikova-Vlakh E.G.</i> HYBRID NANOPARTICLES AND COMPOSITE MATERIALS AS POLYMYXINS DELIVERY SYSTEMS
10:45 - 11:00	<i>Karpov G.O., Bermeshev M.V.</i> METAL-FREE APPROACH FOR ACTIVATION OF Pd-PRECATALYSTS FOR ADDITION POLYMERIZATION OF CYCLIC OLEFINS
11:00 - 11:15	<i>Nizamov A.A., Yudina A.V., Baymuratova G.R., Yarmolenko O.V., Sazonov O.O., Davletbaeva I.M.</i> POLYURETHANE GEL-POLYMER ELECTROLYTES FOR LITHIUM POWER SOURCES
11:15 - 11:30	<i>Dobrynin M.V., Islamova R.M.</i> PLATINUM AND RHODIUM CATALYZED HYDROSILYLATION AS MEANS TO SYNTHESIZE CELLULOSE-BASED GLYCOSILICONES

POSTER SESSION

Thursday, 9th September, 11:35-13:00 (online)

- 6-1. *Alekseev E.I., Zenitova L.A., Yanov V.V.*
VEGETABLE MODIFIER FOR POLYOLEPHIN-BASED COMPOSITIONS
- 6-2. *Alexandrova N.A., Sinitsyna E.S., Vashukova E.S., Glotov A.S., Korzhikova-Vlakh E.G., Tennikova T.B.*
POLYMER MACROPOROUS MICROARRAY FOR DETECTION OF HUMAN GENOME MUTATIONS
- 6-3. *Andriyanova A.N., Baranova M.S., Mustafin A.G.*
LUMINESCENCE PROPERTIES OF POLY[2-(CYCLOHEX-2- EN-1-YL)ANILINE]
- 6-4. *Bagaeva I.O., Sinitsyna, E.S., Korzhikova-Vlakh E.G., Korzhikov-Vlakh V.A., Tennikova T.B.*
NANOPARTICLES BASED ON ALIPHATIC POLYESTERS FOR THE DELIVERY OF ANTICANCER DRUGS

6-5. *Bokatyi A.N., Dubashynskaya N.V., Skorik Y.A.*

COLISTIN-POLYSACCHARIDE CONJUGATES

6-6. *Brunko P.D., Rodin A.S., Litosov G.E., Lavrov N.A.*

INVESTIGATION OF THE EFFECT OF CITRIC ACID ON THE PHYSICAL AND MECHANICAL PROPERTIES OF POLYIMIDE FOAMS

6-7. *Danilenko N.V., Bolbasov E.N., Khlebnikov A.I., Schepetkin I.A.*

NAPHTHOQUINONE SERIES ANTICANCER DRUG DELIVERY SYSTEM BASED ON PCL BIODEGRADABLE POLYMERIC MATERIAL

6-8. *Dome K.V., Akimenko Z.A., Bechkov A.L.*

ON THE APPLICABILITY OF ELECTROPHORESIS FOR PROTEIN QUANTIFICATION IN PRODUCTS OF MECHANICAL PROCESSING

6-9. *Dzhuzha A.U., Korzhikova-Vlakh E.G.*

AMPHIPHILIC GLYCOPOLYPEPTIDES AS POTENTIAL DRUG/GENE DELIVERY SYSTEMS

6-10. *Ershova T.O., Anisimov A.A., Nikiforova G.G., Buzin M.I., Shchegolikhina O.I. and Muzafarov A.M.*

NEW METHOD FOR PREPARATION OF LADDER-LIKE POLYPHENYLSILSESQUIOXANES – CONDENSATION OF PHENYLCONTAINING SILOXANOLS IN AMMONIA

6-11. *Gladnev S.V., Zashikhina N.N., Korzhikova-Vlakh E.G.*

SYNTHESIS OF CONJUGATES OF DEXAMETHASONE WITH SYNTHETIC POLYPEPTIDE

6-12. *Grigoreva A.O., Tarankova K.A., Zaitsev S.D.*

CONTROLLED SYNTHESIS AND AGGREGATION BEHAVIOUR OF FLUOROCONTAINING AMPHIPHILIC COPOLYMERS

6-13. *Gubina N.V., Khazanova M.A., Korzhikov-Vlakh V.A.*

INCREASING STABILITY AND PERFORMANCE OF NUCLEIC ACIDS VIA ENCAPSULATION INTO POLYELECTROLYTE COMPLEXES

6-14. *Guseva M., Alentiev D., Bakhtin D., Borisov I., Volkov A., Finkelshteine E., Bermeshev M.*

SIMPLE AND TWO-STAGE PREPARATION OF SILICON-CONTAINING POLYNORBORNENES FOR GAS SEPARATION MEMBRANE MATERIALS

6-15. *Haghdoust S., Lieberzeit P.*

IN SITU SYNTHESIS OF SURFACE MOLECULARLY IMPRINTED POLYMERS FOR SENSING MAGNETITE NANOPARTICLES

6-16. *Hapankova A.I., Latyshevich I.A.*

IMPACT ASSESSMENT OF THE CURING ACCELERATOR ON THE POLYMERIZATION PROCESS OF THE COMPOSITE



6-17. *L`inova K.O., Safronov A.P., Beketov I.V.*

DSC STUDY OF CURING OF EPOXY COMPOSITES WITH EMBEDDED METALLIC IRON NANOPARTICLES

6-18. *Kamenskii M.A., Li B., Vlasov P.S., Eliseeva S.N.*

DEVELOPMENT OF NOVEL PYRROLIDINE-BASED GEL POLYMER ELECTROLYTES FOR LITHIUM-ION BATTERIES

6-19. *Karaulova A.N., Sinitsyna E.S., Kalinin S.A., Korzhikov-Vlakh V.A.*

POLY(LACTIC ACID) BASED NANOPARTICLES FOR CONTROLLED RELEASE OF CARBONIC ANHYDRASE INHIBITORS

6-20. *Kaskevich K.I., Ilgach D.M., Simonova M.A., Litvinova L.S., Yakimansky A.V.*

SYNTHESIS AND PROPERTIES OF LUMINESCENT POLYMER BRUSHES PF-graft-PMAA

6-21. *Khazanova M.A., Pilipenko I.M., Korzhikov-Vlakh V.A.*

INTERPOLYELECTROLYTE COMPLEXES CROSS-LINKED WITH KETAL LINKER: pH-SENSITIVE SYSTEMS FOR siRNA AND pDNA DELIVERY

6-22. *Khramkova A.V., Tertyshnaya Yu.V., Podzorova M.V.*

THE EFFECT OF THE AQUATIC ENVIRONMENT OF POLYMER BLENDS BASED ON POLYLACTIDE AND LOW DENSITY POLYETHYLENE

6-23. *Kim E.E., Kononevich Yu.N., Vysochinskaya Yu.S., Shchegolikhina O.I., Vasil'ev V.G., Busin M.I., Khanin D.A., Muzafarov A.M.*

CROSS-LINKED POLYMER NETWORKS BASED ON POLYSILOXANES AND METAL β -DIKETONATES

6-24. *Klaving A.V., Zashikhina N.N., Korzhikova-Vlakh E.G.*

SYNTHESIS OF RANDOM COPOLYMERS BASED ON α -AMINO ACIDS

6-25. *Krivovicheva V.S., Averianov I.V., Krylova M.S., Sharoyko V.V., Korzhikov-Vlakh V.A.*

SCAFFOLDS FOR TISSUE ENGINEERING BASED ON GELATIN-METHACRYLATE PARTICLES

6-26. *Kuzminova A.I., Penkova A.V.*

NOVEL PERVAPORATION MEMBRANES MODIFIED BY TITANIUM DIOXIDE FOR PERVAPORATION SEPARATION OF VARIOUS INDUSTRIALLY SIGNIFICANT MIXTURES

6-27. *Latypova L.R., Usmanova G.S., Mustafin A.G.*

POLYMER ANALOGOUS TRANSFORMATIONS OF NEW SOLUBLE HIGH-MOLECULAR DERIVATIVES OF POLYANILINES

6-28. *Lebedev O.A., Grigoreva A.O., Zaitsev S.D.*

RAFT COPOLYMERIZATION OF N-VINYLPYRROLIDONE AND FLUOROACRYLATES WITH VARIOUS STRUCTURES

Thursday, 9th September, 14:30-16:05 (online)

6-29. *Lobanova M.S., Bulgakov B.A.*

THERMAL STABILITY OF PHTHALONITRILE-BASED RESINS

6-30. *Ludin D.V., Zaitsev S.D., Fedushkin I.L.*

NEW METHOD FOR CONTROLLED SYNTHESIS OF PLA BLOCK-COPOLYMERS: ORGANOBORANE/P-QUINONE SYSTEM AND REVERSIBLE-DEACTIVATION RADICAL POLYMERIZATION

6-31. *Luneva O.V., Fateev A.D., Kudryavtseva T.S., Kashurin A.I., Uspenskaya M.V.*

STUDY OF SORPTION CHARACTERISTICS OF COLLAGEN-ACRYLIC HYDROGEL UNDER THE CONDITIONS OF INFLAMMATION PHASE

6-32. *Luss A.L., Kushnerev K.S., Chumakova A.S., Vlaskina E.R., Seregina T.S., Zaitsev V.V., Dyatlov V.A.*

BONE SUBSTITUTION MATERIALS BASED ON POLYMERS WITH CONTROLLED RELEASE OF PHYSIOLOGICALLY ACTIVE SUBSTANCES

6-33. *Manokhina E.A., Anisimov A.A., Drozdov F.A., Peregudov A.S., Muzafarov A.M.*

INTRODUCTION OF PHENYLBORONIC ACIDS IN ORGANOSILICON COMPOUNDS

6-34. *Maratkanov A.O., Bykova P.N., Gostev A.I.*

SYNTHESIS OF POLYSTYRENE TRITHIOCARBONATE AS A PRECURSOR FOR BLOCK-COPOLYMER SYNTHESIS BY RAFT-POLYMERIZATION

6-35. *Minyaylo E.O., Anisimov A.A., Zaitsev A.V., Milenin S.A., Khanin D.A., Ol'shevskaya V. A., Nikiforova G.G., Buzin M.I., Peregudov A.S., Muzafarov A.M.*

BORON-SUBSTITUTED CARBORANE-CARBOSILANE DENDRIMERS: SYNTHESIS AND PROPERTIES

6-36. *Momzyakova K.S., Deberdeev T.R., Aleksandrov A.A., Pechenyi E.A., Nuriev N.K., Yamashev T.A., Kanarsky A.V., Deberdeev R.Ya.*

EFFECT OF BLEACHING CONDITIONS ON THE PROPERTIES OF HERBAL CELLULOSE

6-37. *Nazarov I.V., Guseva M.A., Alentiev D.A., Bermeshev M.V.*

NEW CHIRAL Si-SUBSTITUTED POLYNORBORNENE FOR OPTICAL RESOLUTION OF RACEMATES

6-38. *Simonova M.A., Nepomnyashaya M.I., Kamorin D.M., Kazantsev O.A.*

THERMORESPONSIVE PROPERTIES OF POLYMETHACRYLATE MOLECULAR BRUSHES WITH OLIGO(ETHYLENE GLYCOL)-BLOCK-OLIGO(PROPYLENE GLYCOL) SIDE CHAINS

6-39. *Nokhrin K.A., Safronov A.P.*

THERMODYNAMICS OF SWELLING AND MECHANICAL CHARACTERISTICS OF HYDROGELS BASED ON POLYACRYLAMIDE COPOLYMERS WITH HYDROXYETHYL (METH)ACRYLATE



6-40. *Ochenkov D.E., Mendeleev D.I., Kurenkov V.V*

PVA-BASED COATINGS WITH NOVEL COMPLEX BIOCIDES ADDITIVES

6-41. *Perepada M.V.*

AN INFLUENCE OF THE CRYSTALLIZATION EFFECT ON FEATURES OF THE STRAIN BEHAVIOR OF POLYURETHANE ELASTOMERS BASED ON OLIGOESTERS

6-42. *Pichugin A.M., Nakhod M.A., Dubinina A.D.*

SYNTHESIS AND INVESTIGATION OF PROPERTIES OF TRANSPARENT (CO)POLYMERS BASED ON ACYCLIC AND ALICYCLIC DIAMINES AND DIANHYDRIDES OF AROMATIC TETRACARBOXYLIC ACIDS

6-43. *Podzorova M.V., Tertyshnaya Yu.V., Morokov E.S.*

DEGRADATION OF POLYMER BLENDS BASED ON POLYLACTIDE

6-44. *Rakhmanova P.A., Mironova M.V.*

RHEOLOGICAL PROPERTIES OF COMPOSITES BASED ON POLYISOPRENE AND POLYMETHYLSILSESQUOXANE

6-45. *Rostovtseva V.A., Polotskaya G.A., Pulyalina A.Yu.*

REMARKABLE IMPROVEMENTS OF TRANSPORT PROPERTIES OF POLYETHERIMIDE MEMBRANES USING PEROVSKITES

6-46. *Shalybkova A.A., Sharifullin T.Z., Sigolaeva L.V., Pergushov D.V.*

ELECTROCHEMICAL BIOSENSOR BASED ON NANOSIZED POLYMER-ENZYME FILMS COMPOSED OF P(NIPAM-co-DMAEMA) MICROGEL AND GLUCOSE OXIDASE

6-47. *Shikhova A.M., Averianov I.V., Dobrodumov A.V., Gofman I.V., Voinova V.V., Zhdanov A.P., Korzhikova-Vlakh E.G., Stepanova M.A.*

BIOFUNCTIONAL AND BIODEGRADABLE INORGANIC-ORGANIC COMPOSITES FOR THE TREATMENT OF BONE CANCER AND BONE REGENERATION

6-48. *Shurshina A.S., Chernova V.V., Kulish E.I.*

PROLONGED DRUG DELIVERY SYSTEM BASED ON POLYVINYL ALCOHOL

6-49. *Solovyova Y.V., Puzyrev I.S., Pestov A.V.*

APPLICATION OF ALUMINUM DIKETONATES IN POLYMERIZATION CATALYSIS ϵ -CAPROLACTONE

6-50. *Sorokina S.A., Kuchkina N.V., Shifrina Z.B.*

PYRIDYLPHENYLENE DENDRONS AS EFFICIENT PALLADIUM LIGANDS FOR C-C CROSS-COUPLING REACTIONS

6-51. *Statsenko T.G., Ermolaev G.A., Gets D.S., Eliseev I.E., Volkov V.S. and Morozova S.M.*

GRADIENT REFRACTIVE INDEX IN IONIC POLYMERS BASED ON MODIFIED DIMETHYL DIALLYL AMMONIUM CHLORIDE



6-52. *Tarankova K.A., Grigoreva A.O., Zaitsev S.D.*

**REVERSIBLE ADDITION-FRAGMENTATION CHAIN TRANSFER
POLYMERIZATION OF POLYMETHACRYLIC ACID FOR THE DRUG DELIVERY**

6-53. *Tikhomirov V.A., Gerasin V.A.*

DRIED «ARQUAD 2HT-75» AS A POLYETHYLENE-SMECTITE COMPATIBILIZER

6-54. *Varyan I.A., Karpova S.G., Kolesnikova N.N., Popov A.A.*

**APPLICATION OF THE SPIN PROBE METHOD TO THE STUDY OF A LOW
DENSITY POLYETHYLENE BLENDS WITH NATURAL RUBBER**

6-55. *Vlasov A.M., Grigoreva A.O., Zaitsev S.D.*

**SYNTHESIS AND INVESTIGATION OF pH-SWITCHABLE RAFT AGENT IN
POLYMERIZATION OF VINYL MONOMERS**

6-56. *Zakharova V.A., Kildeeva N.R., Gordeev V.V.*

**APPLICATION OF ADDITIVE 3D PRINTING TECHNOLOGY IN THE FORMATION
OF COMPOSITE CHITOSAN-CONTAINING HYDROGEL SCAFFOLDS FOR TISSUE
ENGINEERING**

6-57. *Zolotarev A.A., Kuzminova A.I., Plisko T.V., Penkova A.V.*

**NOVEL ULTRAFILTRATION MEMBRANES BASED ON POLYACRYLONITRILE
MODIFIED BY TITANIUM DIOXIDE**

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