

**Institute of Chemistry
Chemical Society of the Republic of Moldova**

**International Conference
ACHIEVEMENTS AND PERSPECTIVES OF
MODERN CHEMISTRY**

**dedicated to the 60th anniversary from the foundation of the
Institute of Chemistry**



PROGRAM

**October, 9-11 2019
Chisinau, Republic of Moldova**

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The International Conference *ACHIEVEMENTS AND PERSPECTIVES OF MODERN CHEMISTRY* is

Organized by the *INSTITUTE of CHEMISTRY*



Co-organized by the *Chemical Society of the Republic of Moldova*



Under coordination of the
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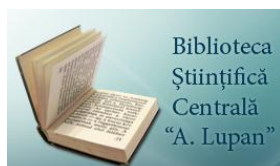
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RESEARCH AND DEVELOPMENT**



GENERAL INFORMATION

REGISTRATION DESK

On *Wednesday, October 9*, from 12:00 till 18:00 the Registration/Information Desk will be available in the Main hall of the Institute of Chemistry (3, Academiei str.) and on *Thursday, October 10*, from 8:00 till 9:00 in the Main hall of the “A. Lupan” Central Scientific Library (5A, Academiei str.).

All members of the Organizing Committee are ready to help you in case of any problems or questions.

OPENING CEREMONY and **Plenary Lecture Session** will take place at the “A. Lupan” Central Scientific Library, 5A, Academiei str. (nearby Institute of Chemistry). All other Working in Sessions will take place at the Institute of Chemistry (3, Academiei str.) and “A. Lupan” Central Scientific Library. These Conference venues are accessible by trolley-buses 3, 9, 10, 13, 24 (the destination stop is called DOKUCHYAEV str.) and trolley-bus 2 (the destination stop is called KOROLENKO str.)

The program comprises **Plenary Lectures (L)** of 20 min and **Oral Presentations (O)** of 10 min, including time for discussions. The overhead projector and PC with Power Point facilities will be available for presentations.

The Participants are invited to put their **posters** on display (posters should not exceed 90 cm in width and 100 cm in height) on October 10 and 11, before the Conference opening ceremony or during the coffee break. The number on the poster board corresponds to number of presentation in the Book of Abstracts.

URBAN

Trolleybuses, buses, and minibuses are cheap, 2 and 3 MDL (Moldavian lei), respectively. They all operate from 6:00 till 24:00. Tickets for buses and trolleybuses should be purchased on board the vehicle. Minibus tickets are bought from the driver. **Taxis** may be ordered using the following numbers in Chisinau:

14 004 (Taxi-Favorit)	14 100 (Maestro)	14 474 (TaxiCab)
14 005 (Avida)	14 222 (Meridian)	14 499 (Regal)
14 008 (TaxiService)	14 400 (Municipal)	14 999 (Star)
14 009 (Diplomat)	14 441 (Metro)	

MEALS

Welcome party (included in the fee) and lunch (120 MDL/person/day) in café “*Crizantema*” (nearby Institute of Chemistry). The participants may buy lunch tickets upon registration. Coffee and tea will be served during coffee breaks between scientific sessions. Number of cafeterias is also available in the neighborhood of the Institute of Chemistry.

WEATHER

The weather in October in Chisinau is usually pleasant, with temperatures within 15-20°C. However, rain is always possible, so an umbrella, light raincoat and comfortable shoes are advisable. For weather forecast please visit websites: <https://www.gismeteo.com/weather-chisinau-4980/>.

EXCHANGE

The Moldavian Lei (MDL) is the only legal currency in Republic of Moldova. Foreign currency exchange is available at the airport, in banks, in some hotels and in exchange offices. To check the exchange rate, please address to: <http://bnm.md/en/search>.

SOCIAL EVENTS

- Wednesday, October 9**
- 18:00** Welcome reception for all participants and accompanying persons.
Cafe *Crizantema*, 1A, Academiei str., nearby Institute of Chemistry (**included in the fee**)
- Thursday, October 10**
- 17:30** Excursion to *Castle Mimi*. Departure from the “A. Lupan” Central Scientific Library (5A, Academiei str) (**55 Euros per person**)
- Friday, October 11**
- 18:00** Conference dinner in Cafe *Crizantema*, Academiei str., 1A, (**20 Euros per person**)

TIMETABLE OF THE CONFERENCE

Wednesday, October 9

Address:

12:00 – 18:00	Participants arrival Registration	<i>Institute of Chemistry, entrance hall, 3, Academiei str.</i>
18:00	Welcome party	<i>Café “Crizantema”, Academiei str., 1A, nearby Institute of Chemistry</i>

Thursday, October 10

8:00 – 9:00	Registration	<i>“Andrei Lupan” Central Scientific Library, Academiei str., 5A, Conference Hall</i>
9:00 – 9:30	Opening ceremony	
9:30 – 11:00	Plenary Lectures Session (L1- L4)	
11:00 – 11:30	Coffee break	
11:30 – 13:10	Plenary Lectures Session (L5- L9)	<i>“Andrei Lupan” Central Scientific Library, Academiei str., 5A</i>
13:10 – 13:30	Conference photo	
13:30 – 14:30	Lunch	<i>Café “Crizantema”, Academiei str., 1A, nearby Institute of Chemistry</i>
14:30 – 17:00	Three parallel sessions Oral Presentations (10 min) <i>Inorganic and physical chemistry (O 1-O 11)</i> <i>Analytical and ecological chemistry (O 12 - O 25)</i> <i>Organic and bioorganic chemistry (OP 26 - OP 39)</i>	<i>“Andrei Lupan” Central Scientific Library, Academiei str., 5A, Conference Hall</i>
		<i>Institute of Chemistry, Academiei str., 3, Small Hall (349)</i>
		<i>“Andrei Lupan” Central Scientific Library, Academiei str., 5A Small Hall (second floor)</i>
9:00-17:00	Poster session <i>Inorganic and physical chemistry (P1-P87)</i>	<i>“Andrei Lupan” Central Scientific Library, Academiei str., 5A</i>
17:30	Excursion	<i>Castle Mimi, Departure from the “A. Lupan” Central Scientific Library (5A, Academiei str.)</i>

Friday, October 11

9:00 – 11:00	Plenary Lectures Session (L10-L15)	<i>“Andrei Lupan” Central Scientific Library, Academiei str., 5A</i>
11:00 – 11:30	Coffee break	
11:30 – 13:10	Plenary Lectures Session (L16-L20)	<i>Café “Crizantema”, Academiei str. 1A, nearby Institute of Chemistry</i>
13:10 – 14:00	Lunch break	
9:00 – 17:00	Poster sessions <i>Analytical and ecological chemistry (P88 - P 135)</i> <i>Organic and bioorganic chemistry (P 136 - P 184)</i>	<i>“Andrei Lupan” Central Scientific Library, Academiei str., 5A</i>
18:00	Closing ceremony Conference dinner	<i>Café “Crizantema”, Academiei str., 1A, nearby Institute of Chemistry</i>

SCIENTIFIC PROGRAM

Wednesday, October 9

PARTICIPANTS ARRIVAL

12:00 – 18:00 **Participants Registration** *Address: Institute of Chemistry, 3, Academiei str.*

18:00 – 20:00 **Welcome Party**
Address: Cafe Crizantema, 1A, Academiei str., nearby Institute of Chemistry

Thursday, October 10

Address: A. Lupan Central Scientific Library, 5A, Academiei str.

8:00 – 9:00 **Participants Registration**

9:00 – 9:30 **Conference Opening Ceremony**

9:30 – 11:00 **PLENARY LECTURES SESSION**

Address: A. Lupan Central Scientific Library, 5A, Academiei str.

Moderators Acad., Prof. Gheorghe DUCA, Institute of Chemistry, Republic of Moldova
Acad., Prof. Tudor LUPASCU, Institute of Chemistry, Republic of Moldova
Acad., Prof. Bogdan SIMIONESCU, Romanian Academy, Romania

L1 **THE INSTITUTE OF CHEMISTRY AT 60 YEARS ANNIVERSARY. BRIEF HISTORY, ACHIEVEMENTS AND PERSPECTIVES**
9:30 – 10:00
(30 min) *Prof. Aculina ARICU, Institute of Chemistry, Chisinau, Republic of Moldova*

L2 **POLYMERS IN DRUG/GENE DELIVERY AND TISSUE ENGINEERING**
10:00 – 10:20
(20 min) *Acad., Prof. Bogdan SIMIONESCU, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania*

L3 **HYDROGEN PEROXIDE AN OUTSTANDING AGENT IN ENVIRONMENT**
10:20 – 10:40
(20 min) *Acad., Prof. Gheorghe DUCA, Institute of Chemistry, Chisinau, Republic of Moldova*

L4 **POROUS ORGANIC SOLIDS - CLATHRATE VERSUS ORGANIC ZEOLITE BEHAVIOUR**
10:40 – 11:00
(20 min) *Acad., Prof. Janusz LIPKOWSKI, Cardinal Stefan Wyszyński University in Warsaw, Poland*

11:00 – 11:30 **Coffee break**

11:30 – 13:10 **PLENARY LECTURES SESSION (continuation)**

Address: A. Lupan Central Scientific Library, 5A, Academiei str.

Moderators Acad., Prof. Aurelian GULEA, Moldova State University, Republic of Moldova
Acad., Prof. Vladimir KHRIPACH, National Academy of Sciences of Belarus
Prof. Athina GERONIKAKI, Aristotle University of Thessaloniki, Greece

L5 **[MO₂O₂S₂]²⁺ AND [MO₂O₄]²⁺ -BASED COORDINATION CHEMISTRY: FROM SYNTHESIS TO BIOLOGICAL APPLICATIONS**
11:30 – 11:50
(20 min) *Prof. Sebastien FLOQUET, Institut Lavoisier of Versailles, University of*

Versailles, University Paris-Saclay, Versailles, France
(Co-authors: Arcadie Fuior, Diana Cebotari, Ion Toderas, Valentina Cebotari, Aurelian Gulea)

L6 **NANOSTRUCTURED MATERIALS FOR BIOMEDICAL APPLICATIONS**
11:50 – 12:10
(20 min) *Acad., Prof. Vladimir AGABEKOV, Institute of Chemistry of New Materials of National Academy of Sciences of Belarus, Minsk, Belarus*

L7 **HETEROMETALLIC RINGS AS BUILDING BLOCKS FOR SUPRAMOLECULAR ASSEMBLIES**
12:10 – 12:30
(20 min) *Prof. Grigore TIMCO, University of Manchester, United Kingdom*
(Co-authors: Antonio Fernandez, Jesús Ferrando-Soria, Inigo J. Vitorica Yrezabal, George F.S. Whitehead, R.E.P. Winpenny)

L8 **POLYENE MACROLIDE ANTIBIOTIC DERIVATIVES: DESIGN, SYNTHESIS, BIOLOGICAL ACTIVITY, OVERCOMING DRUG RESISTANCE, AND PROSPECTS FOR USE IN MEDICAL PRACTICE**
12:30 – 12:50
(20 min) *Prof. Alexandr GARABADZHIU, Saint-Petersburg State Technological Institute, Russia*
(Co-author: Valery Belakhov)

L9 **QUANTITATIVE APPROACH TO THE ASSESSMENT OF ANTHROPOGENIC IMPACT ON THE ENVIRONMENT**
12:50 – 13:10
(20 min) *Prof. Sergey TRAVIN, N.N. Semenov Institute of Chemical Physics of Russian Academy of Sciences, Moscow, Russia*

13:10 – 13:30 **Conference photo**
13:30 – 14:30 **Lunch** (*Cafe Crizantema, 1A, Academiei str., nearby Institute of Chemistry*)

14:30-17:00 **Three parallel sessions**
 Inorganic and physical chemistry
 Analytical and ecological chemistry
 Organic and bioorganic chemistry

Session I **Inorganic and Physical Chemistry**
Address: A. Lupan Central Scientific Library, 5A, Academiei str. Conference Hall

Session II **Analytical and Ecological Chemistry**
Address: Institute of Chemistry, Small Hall (3, Academiei str.)

Session III **Organic and Bioorganic Chemistry**
Address: A. Lupan Central Scientific Library, Small Hall, 5A, Academiei str.

17:30 **Excursion** *Castle Mimi, Departure from the “A. Lupan” Central Scientific Library (5A, Academiei str.)*

Friday, October 11

9:00 – 11:00 PLENARY SESSION (continuation)

Address: A. Lupan Central Scientific Library, 5A, Academiei str.

Moderators Acad., Prof. Vladimir AGABEKOV, National Academy of Sciences of Belarus
Corr. member, Prof. Ion GERU, Institute of Chemistry, Republic of Moldova
Prof. Grigore TIMCO, University of Manchester, United Kingdom

L10 DESIGN AND SYHNTHESES OF NEW THIAZOLIDINONE AS WELL AS NATURAL PRODUCT DERIVATIVES AS ANTIMICROBIAL AGENTS

9:00 – 9:20
(20 min)

Prof. Athina GERONIKAKI, Aristotle University of Thessaloniki, Greece
(Co-authors: Maria Fesatidou, Jasmina Glamoclija, Ana Ciric, Marina Sokovic)

L11 MONOHETEROATOMIC AZAHETEROCYCLES: MEDICINAL CHEMISTRY APPLICATIONS

9:40 – 10:00
(20 min)

Prof. Ionel MANGALAGIU, A.I. Cuza University of Iasi, Romania
(Co-authors: Vasilichia Antoci, Dorina Amariuca-Mantu, Violeta Mangalagiu, Ramona Danac, Costel Moldoveanu, Gheorghita Zbancioc)

L12 CHEMISTRY AND APPLICATIONS OF NEW STEROIDS: PROMISING PROSPECTS FOR AGRICULTURE AND BIOMEDICINE

9:20 – 9:40
(20 min)

Acad., Prof. Vladimir KHRIPACH, Institute of Bioorganic Chemistry, National Academy of Sciences of Belarus, Minsk, Belarus
(Co-Author: Vladimir N. Zhabinskii)

L13 HYDROPHILICITY TUNING AND SHAPING OF MOFS FOR WATER SORPTION IN HEAT TRANSFORMATION APPLICATIONS

10:00 – 10:20
(20 min)

Prof. Christoph JANIAC, Institut für Anorganische Chemie und Strukturchemie, Heinrich-Heine-Universität Düsseldorf, Düsseldorf, Germany

L14 TIME-REVERSAL SYMMETRY IN COORDINATION CHEMISTRY

10:20 – 10:40
(20 min)

Corr. member, Prof. Ion GERU Institute of Chemistry, Chisinau, Republic of Moldova

L15 PENTAGONAL BIPYRAMID COMPLEXES: A JOURNEY FROM MAGNETIC ANISOTROPY TO MOLECULAR MAGNETS

10:40 – 11:00
(20 min)

Prof. Jean-Pascal SUTTER, Coordination Chemistry Laboratory of CNRS, Toulouse, France

11:00 – 11:30 Coffee break

PLENARY SESSION (continuation)

Address: A. Lupan Central Scientific Library, 5A, Academiei str.

Moderators Acad., Prof. Janusz LIPKOWSKI, Cardinal Stefan Wyszyński University in Warsaw

Prof. Ionel MANGALAGIU, A.I. Cuza University of Iasi, Romania
Prof. Christoph JANIAC, Heinrich-Heine-Universität Düsseldorf, Germany

L16 NANOSTRUCTURED COMPOSITE MATERIALS FOR ENVIRONMENTAL REMEDIATION FROM MERCURY AND ARSENIC

11:30 – 11:50
(20 min)

Prof. Sergey MIKHALOVSKY, ANAMAD Ltd, Brighton, United Kingdom
(Co-authors: Vasileios Inglezakis, Andy Cundy, Irina Savina, Ray Whitby, Kseniia Katok, Alina Korobeinyk)

L17
11:50 – 12:10
(20 min) **TERPENENOIDS FROM THE HAINAN SOFT CORALS: STRUCTURE, ABSOLUTE STEREOCHEMISTRY AND BIOLOGICAL ACTIVITIES**

Prof. Yue-Wei GUO, Shanghai Institute of Material Medica, Chinese Academy of Sciences, Shanghai, China

L18
12:10 – 12:30
(20 min) **HIGH-PERFORMANCE OF GAS HYDRATES CONFINED IN NANOPOROUS SOLIDS FOR CH₄ AND CO₂ STORAGE**

Prof. Joaquin SILVESTRE-ALBERO, University of Alicante, Spain
(Co-authors: Mirian Elizabeth Casco, Carlos Cuadrado-Collados, Manuel Martínez-Escandell)

L19
12:30 – 12:50
(20 min) **EXPLOITATION OF SECONDARY RAW MATERIALS: APPLICATION OF INNOVATIVE PROCESSES FOR VALORIZATION OF MINING WASTES**

Prof. Stefano UBALDINI, Institute of Environmental Geology and Geoengineering, Italian National Research Council, Italy
(Co-authors: Igor Povar, Tudor Lupascu, Oxana Spinu, Francesca Trapasso, Daniele Passeri, Serena Carloni, Daniela Guglietta)

L20
12:50 – 13:10
(20 min) **AB INITIO INVESTIGATION OF MAGNETIZATION BLOCKING IN SINGLE-MOLECULE MAGNETS**

Prof. Liviu CHIBOTARU, Katholieke Universiteit Leuven, Belgium

13:10 – 14:00 **Lunch** (*Cafe Crizantema, 1A, Academiei str., nearby Institute of Chemistry*)

9:00-17:00 **Poster sessions**
Address: A. Lupan Central Scientific Library, 5A, Academiei str.

18:00 **Closing ceremony**
Conference dinner
(Cafe Crizantema, 1A, Academiei str., nearby Institute of Chemistry)