

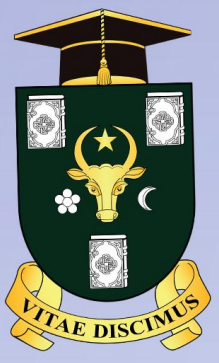

# 11th International Conference on Materials Science and Condensed Matter Physics

## PROGRAMME

1st – 4th September 2026

CHIȘINĂU · REPUBLIC OF MOLDOVA




















PHANOS

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## CONFERENCE PROGRAMME / OUTLINE OF THE WEEK

### Monday, 31st August

**Arrival and Registration**
Hall RM

**NATO SPS Project G6153 Workshop Meeting**

**Welcome Party**
Building 4

### Tuesday, 1st September

Plenary Session, Hall RM

Opening Ceremony

M. Andruh
*Romanian Academy*

S. Schorr
*Helmholtz-Zentrum Berlin · Freie Universität Berlin*

Coffee Break

J. Deisenfopher
*University of Augsburg*

12:00 - 13:30 Lunch Break

| CMT-A | GPAM | EMDC |
|---|---|---|
| Hall RM | Hall 2 | Hall 3 |

Coffee Break

**CMT-A**
Hall RM

Poster Session A
**CMT | GPAM | EMDC**

**Excursions in Small Groups**
**Wine Tasting, Cricova, Milestii Mici**

### Wednesday, 2nd September

Plenary Session, Hall RM

W. Knapp
*Institute of High Pressure Physics · Warsaw University of Technology*

M. Grossberg-Kuusk
*Tallinn University of Technology*

M. Stef
*West University of Timişoara*

Ş.-A. Irimiciuc
*Institute of Physics, Czechia · INFLPR, Romania*

Coffee Break

R. Ošťádal
*Thermo Fisher Scientific - Electron Microscopy*

12:00 - 13:30 Lunch Break

| CMT-B | DSEFM-A | SSNN |
|---|---|---|
| Hall RM | Hall 2 | Hall 3 |

Coffee Break

**CMT-B**
Hall RM

Poster Session B
**DSEFM | SSNN**

**Concert**
Palatul Republicii

### Thursday, 3rd September

Plenary Session, Hall RM

A. Dinescu
*IMT Bucharest*

S. Zherlitsyn
Helmholtz-Zentrum Dresden-Rossendorf

S. Klimin
Antwerpen University

C. Pașcu Moca
*University of Oradea*

Coffee Break

V. Tsurkan
*Institute of Applied Physics, MSU · University of Augsburg*

12:00 - 13:00 Lunch Break

| DSEFM-B | MEST |
|---|---|
| Hall RM | Hall 2 |

Coffee Break

Poster Session C
**DSEFM | MEST**

**Conference Dinner**
Poiana Winery

### Friday, 4th September

Plenary Session, Hall RM

V. Fomin
*IFW Dresden*

M. Guc
Catalonia Institute for Energy Research

Coffee Break

A. Sidorenco
*IEEN, Technical University of Moldova*

M. Macovei
*Institute of Applied Physics, MSU*

Closing Ceremony

**TOPICAL SESSIONS**

- **CMT-A,B** - Condensed Matter Theory
- **GPAM** - Growth and Properties of Advanced Materials
- **DSEFM** - Design and Structural Engineering of Functional Materials
- **SSNN** - Solid State Nanophysics and Nanotechnology
- **EMDC** - Electromagnetic radiation detection and conversion
- **MEST** - Materials engineering for Innovative and Sustainable Technologies

**HALLS**

- **Hall RM** - Hall "Regina Maria" – 137/C
- **Hall 2** - Hall 141/C
- **Hall 3** - Hall 145/C

mscmp CHIȘINAU 2026

## ORGANIZED BY

Institute of Applied Physics of Moldova State University

Faculty of Physcis and Engineering of Moldova State University

Institute of Chemistry of Moldova State University

Scientific Association “Materials Science and Engineering”

NATO SPS Project G6153

“Stealth Coatings Based on 3D Architectures of High Entropy Materials"

## SUPPORTED BY

Moldova State University

NATO SPS Project G6153

“Stealth Coatings Based on 3D Architectures of High Entropy Materials"

National Institute for Laser, Plasma and Radiation Physics, Romania

PHANOS Technologies SRL

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## CULTURAL PARTNER

National Philharmonic „Serghei Lunchevici”

# GENERAL INFORMATION

## PLENARY LECTURES

Plenary lectures, 30-minute long including questions, will be given on every day between 9:00 – 13:00 at Hall "Regina Maria"

## ORAL PRESENTATIONS

The oral topical sessions will include keynote lectures 25 min and oral presentations 15 min including discussions.

**THE SPEAKERS** are kindly asked to upload their presentations directly in the respective lecture room before the session. All the lecture rooms are equipped with a computer (Windows operative system).

**THE SESSIONS CHAIRS** will ensure that the oral presentation programme runs exactly as scheduled in the Scientific Programme in order to have enough time for a discussion and the transfer from one session to another. If a session should undergo any unavoidable changes, an up-to-date timetable will be posted both on the Bulletin Boards in the reception area and on the Daily Programme just outside the lecture rooms.

## POSTER PRESENTATIONS

The poster sessions will be held on 1st September (Poster Session A), 2nd September (Poster Session B) and 3rd September (Poster Session C). Posters should be hanged during lunch break and presenters will attend their poster on the afternoon (16:00-18:00). They are responsible for retrieving their posters at the end of the session.

## CONFERENCE BADGE

Please wear your conference badge, which you will receive upon arrival, at all times while at MSCMP2026.

## CONFERENCE REGISTRATION DESK

The registration desk will be available for information, help, or enquiries on all the conference days, starting at 8:00.

## OFFICIAL LANGUAGE

The official language of the Conference is English. Translation and interpreting services during the event will not be available.

## VENUE

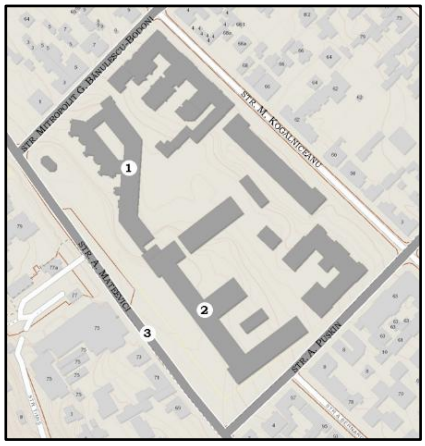
Conference venues are accessible by trolley-buses No 2, 3, 10, 24; till the destination stop called Alexei Mateevici (Moldova State University). Local taxi can be ordered via phone numbers: 14000, 14111, 14447, 14449.

### MOLDOVA STATE UNIVERSITY

① Central Building
Hall "Regina Maria" – 137/C
Hall 2 – 141/C
Hall 3 – 145/C

② Building 4
Wellcome party

③ Entrance



## TUESDAY, 1ST SEPTEMBER 2026

### Hall "Regina Maria" – 137/C

### Opening Ceremony and Plenary Session

SCAN FOR THE ABSTRACT

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|---|---|---|
| 9:00 | **L. Kulyuk, S. Vatavu**<br>WELCOME TO MSCMP2026 | |
| 10:00 | **M. Andruh**<br>LANTHANIDES IN MOLECULAR MATERIALS<br>*Romanian Academy, Romania* | |
| 10:30 | **S. Schorr**<br>EXPANDING THE CHALCOGENIDE SEMICONDUCTOR LANDSCAPE TOWARDS NARRO AND WIDE GAP MATERIALS<br>*Helmholtz-Zentrum Berlin, Germany · Freie Universität Berlin, Germany* | |
| 11:00 – 11:30 | COFFEE BREAK | |
| 11:30 | **J. Deisenhofer**<br>ALTERMAGNETS AND THEIR OPTICAL PROPERTIES<br>*University of Augsburg, Germany* | |
| 12:00 – 13:30 | LUNCH BREAK | |

**Hall "Regina Maria" – 137/C**

**Oral Session – Condensed Matter Theory – A (CMT-A)**

SCAN FOR THE ABSTRACT

| | | |
|---|---|---|
| 13:30<br>Keynote | **S. Klokishner**, O. Reu, S. Ostrovsky<br>MODELING OF THE VALENCE TAUTOMERIC TRANSFORMATION IN COBALT COMPLEXES: INTERACTION OF MOLECULAR MODES WITH PHONONS<br>*Institute of Applied Physics, Moldova State University, Moldova* | |
| 13:55<br>Keynote | **E. A. Zhukov**, D. R. Yakovlev, N. E. Kopteva, M. Bayer<br>COHERENT SPIN DYNAMICS OF ELECTRONS AND HOLES PHOTOGENERATED WITH LARGE KINETIC ENERGY IN LEAD HALIDE PEROVSKITE CRYSTALS<br>*Technische Universität Dortmund, Germany* | |
| 14:20 | **V. P. Sirkeli**<br>ENHANCING THE PERFORMANCE OF InGaN-BASED GREEN LEDs THROUGH SUBSTRATE POLARITY ENGINEERING: FROM POLAR c-PLANE TO SEMIPOLAR STRUCTURES<br>*Moldova State University, Moldova* | |
| 14:35 | **A. Cocemasov**, V. Brinzari, D. L. Nika<br>SUPPRESSION OF THERMAL TRANSPORT IN CUBIC $In_2O_3$ WITH Pb-Tl DEFECTS<br>*Moldova State University, Moldova* | |
| 14:50 | **M. Zhezhu**, V. Mehrabyan, V. Torosyan, D. Vanyan, M. Yaprintsev, O. Ivanov, A. Vasil'ev<br>REACTIVE FILLERS AS A TOOL FOR MICROSTRUCTURE ENGINEERING IN $Bi_2Te_3$-BASED THERMOELECTRIC COMPOSITES<br>*Institute of Chemical Physics NAS RA, Armenia* | |
| | COFFEE BREAK | |
| 15:35 | **O.S. Reu**, S.I. Klokishner<br>SPIN TRANSFORMATION INDUCED BY THE PROTON TRANSFER IN THE IRON (II) HYDRAZONE CRYSTALLINE COMPOUND $[Fe(HL\text{-}F)_2](AsF_6)_2$<br>*Institute of Applied Physics, Moldova State University, Moldova* | |
| 15:50 | **P. Milev**, F. Paleari, D. Sangalli<br>*Ab initio* RESONANT RAMAN SCATTERING STUDY OF MONOLAYER AND BULK $MoS_2$<br>*Istituto di Struttura della Materia-CNR, Italy · Università degli Studi di Milano, Italy* | |
| 16:05 | **I. I. Geru**<br>ON THE DOUBLE DEGENERACY OF QUASI-ENERGY LEVELS<br>*Institute of Chemistry, Moldova State University, Moldova* | |

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| 16:20 | **A. Rotari, M. A. Macovei**<br>COOPERATIVE EMISSION AND NONCLASSICAL PHOTON STATISTICS OF THREE ATOMS IN AN EQUILATERAL-TRIANGLE GEOMETRY<br>*Institute of Applied Physics, Moldova State University, Moldova* | |

**Hall 2 – 141/C**

**Oral Session – Growth and Properties of Advanced Materials (GPAM)**

SCAN FOR THE ABSTRACT

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|---|---|---|
| 13:30<br>Keynote | **O. Grendal, C. R. Zeiger, R. S. Dragland, R. Sjøkvist, R. Beanland, D. Meier, M. Senn**<br>STRUCTURAL CHIRALITY AND FUNCTIONALITY IN INCOMMENSURATE MODULATED TETRAGONAL TUNGSTEN BRONZES<br>*University of Warwick, United Kingdom* | |
| 13:55 | **G. Gurieva, K. Ernits, A. Manjon Sanz, D. Sheptyakov, M. Avdeev, N. Siminel, M. Kirkham, D. Meissner, S. Schorr**<br>ATOMIC STRUCTURE AND STRUCTURAL DISORDER VS. DEVICE EFFICIENCY IN KESTERITE MONOGRAIN SOLAR CELLS<br>*Helmholtz-Zentrum Berlin , Germany* | |
| 14:10 | **L. Prodan, I. Filippova, D. Croitori, S. Moldovanu, O. G. Grendal, S. Shova, A. Tsirlin, I. Kézsmárki, V. Tsurkan**<br>DISORDER-CONTROLLED MAGNETISM IN POLAR ANTIFERROMAGNETS $M_2Mo_3O_8$<br>*University of Augsburg, Germany* | |
| 14:25 | **V. Rotaru, G. Gurieva, P. Vidal Fuentes, A. Pérez-Rodríguez, V. Izquierdo Roca, S. Schorr, M. Guc**<br>FROM $Cu_2ZnSiSe_4$ TO $Cu_2ZnGeSe_4$: EVOLUTION OF VIBRATIONAL PROPERTIES WITH Ge INCORPORATION<br>*Catalonia Institute for Energy Research ·Universitat de Barcelona, Spain* | |
| 14:40 | **H. Prell, G. Gurieva, M. Rusu, M Grossberg-Kuusk, M. Kauk-Kuusik, S. Schorr**<br>INTRINSIC POINT DEFECTS IN ALKALI-DOPED KESTERITE-TYPE SEMICONDUCTORS AND THEIR INFLUENCE ON SOLAR CELL PERFORMANCE<br>*Freie Universität, Germany · Helmholtz-Zentrum Berlin, Germany* | |
| 14:55 | **V. Ghenea, I. Culeac, E. Melnic, I. Cojocaru, V. Verlan, A. Siminel, I. Bulhac, A. Buzdugan, A.-G. Pantazi, M. Enachescu**<br>INSIGHTS INTO THE PHOTOLUMINESCENT AND STRUCTURAL PROPERTIES OF THE BINUCLEAR COMPLEX $[Eu_2(o\text{-MBA})_6(phen)_2]$<br>*Institute of Applied Physics, Moldova State University · Technical University of Moldova* | |

COFFEE BREAK

| Hall 3 – 145/C<br>Oral Session – Electromagnetic radiation detection and conversion (EMDC) | | SCAN FOR THE ABSTRACT |
|---|---|---|
| 13:30<br>Keynote | **S. Vatavu, Ig. Narolschi, O. Shapoval, M. Rusu, A. Belenchuk, Gh. Ghileţchii, A. Varzari, V. Crăciun, J. Lančok, Ş.-A. Irimiciuc**<br>HIGH-ENTROPY $(FeCoNiCrMn)_3O_4$ FILMS FOR CAMOUFLAGE COATINGS IN MICROWAVE REGION<br>*Moldova State University* | |
| 13:55 | **A. Meshalkin, E. Achimova, V. Abaskin, C. Losmanschii, V. Botnari, D. Muntean**<br>DIFFRACTION EFFICIENCY AS A MEASURE OF OPTICAL PARAMETER MODULATION IN RECORDING MEDIA<br>*Institute of Applied Physics, Moldova State University* | |
| 14:10 | **A. Varzari, A. Cliucanov, Gh. Ghileţchii, S. Vatavu**<br>PHASE-TRANSITION-DRIVEN THERMOCHROMIC RESPONSE MODELLING IN $VO_2$-LIKE SYSTEMS<br>*Moldova State University* | |
| 14:25 | **Gh. Ghileţchii, O. Shapoval, M. Rusu, A. Varzari, A. Belenchuk, Ig. Narolschi, V. Nicorici, V. Crăciun, P. Garoi, V. Grumezescu, Ş.-A Irimiciuc, S. Vatavu**<br>TECHNOLOGY AND ELECTRONIC PROPERTIES OF NiO DOPED BY Cu AND Ga FOR CHROMOGENIC AND PHOTOVOLTAIC APPLICATIONS<br>*Moldova State University* | |
| 14:40 | **C. Losmanschii, E. Achimova, V. Abaskin, S. Moldovanu, V. Botnari, A. Meshalkin, V. Cazac, D. Muntean, D. Spoială**<br>MASKLESS ONE-STEP MICROPATTERNING OF AZOPOLYMER THIN FILMS BY DIRECT ELECTRON BEAM RECORDING<br>*Institute of Applied Physics, Moldova State University* | |
| COFFEE BREAK | | |

## Poster Session A (15:30 – 18:30)

SCAN FOR THE ABSTRACT

### Condensed Matter Theory (CMT)

### Growth and Properties of Advanced Materials (GPAM)

### Electromagnetic radiation detection and conversion (EMDC)

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| CMT P1 | V. Tronciu, S. Rusu, V. Dobrovolschi<br>THEORETICAL STUDY OF SHORT PULSE IN DFB LASERS BY RATE EQUATION MODEL<br>*Technical University of Moldova* | |
| CMT P2 | V. Tronciu, S. Zaporojan, N. Gubceac, R. R. Slavescu<br>MACHINE LEARNING-BASED OPTIMIZATION OF DFB LASER PARAMETERS FOR SHORT PULSE GENERATION<br>*Technical University of Moldova* | |
| CMT P3 | O. V. Yaltychenko, E. Yu. Kanarovskii<br>MODELING OF DYNAMIC EQUILIBRIUM IN THE OXIDANT-ANTIOXIDANT SYSTEM ACCOUNTING FOR THE SYNERGETIC EFFECT OF VITAMINS E, C, AND BIOFLAVONOIDS<br>*Institute of Applied Physics, MSU* | |
| CMT P4 | E. Cecoi, V. Ciornea, A. Isar, M. A. Macovei<br>PHONON-ASSISTED GENERATION OF ENTANGLED TWO-QUBIT STATES<br>*Institute of Applied Physics, MSU* | |
| CMT P5 | E. Yu. Kanarovskii, O. V. Yaltychenko<br>MODELING OF MULTICENTER CORE-SHELL NANOCLUSTERS<br>*Institute of Applied Physics, MSU* | |
| CMT P6 | Yu. Chumakov, E. Beleaev, S. G. Baca<br>A DFT-TB2J INSIGHT INTO THE MAGNETIC BEHAVIOR AND INTRACHAIN INTERACTIONS OF THE 1D Co(II) PIVALATE COORDINATION POLYMER WITH HEXAMETHYLENETETRAMINE<br>*Institute of Applied Physics, MSU* | |
| CMT P7 | Ş. Robu, V. Stegariov, I. Lungu, M. Diru, T. Potlog<br>MONO- AND TETRASULFO-DERIVATIVES OF ZINC PHTHALOCYANINE AND THEIR CHITOSAN-BASED COMPOSITIONS<br>*Institute of Applied Physics, MSU* | |
| CMT P8 | A. S. Cudreasov, M. A. Macovei<br>TWO DIPOLE-DIPOLE INTERACTING EMITTERS IN A MODERATELY STRONG LASER FIELD<br>*Institute of Applied Physics, MSU* | |

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| CMT P9 | **I. M. Cernica**<br>MODELING BLOOD FLOW IN STENOSED ARTERIES: PRESSURE LOSSE<br>*Institute of Applied Physics, MSU* | |
| CMT P10 | **I. M. Cernica**<br>MODELING BLOOD FLOW IN STENOSED ARTERIES: BLOOD FLOW RATE<br>*Institute of Applied Physics, MSU* | |
| CMT P11 | **S. C. Andronic, I. I. Sanduleac**<br>THE PEIERLS STRUCTURAL TRANSITION IN QUASI-ONE-DIMENSIONAL TTT2I3 ORGANIC CRYSTALS WITH CONSIDERIND INTERCHAIN INTERACTION<br>*Technical University of Moldova* | |
| CMT P12 | **S. Cârlig, V. Ciornea, C. Gherman, M. A. Macovei**<br>INDIRECT POPULATION OF AN EMPTY OPTICAL CAVITY VIA COLLECTIVE ATOMIC EFFECTS<br>*Institute of Applied Physics, MSU* | |
| GPAM P1 | **I. Culeac, V. Verlan, V. Ghenea, I. Bulhac, I. Cojocaru, A.-G. Pantazi, M. Enachescu**<br>[Eu(DBM)$_3$Phen] SUBLIMATED THIN FILMS FOR OPTOELECTRONIC DEVICES<br>*Institute of Applied Physics, MSU* | |
| GPAM P2 | **V. Ghenea, I. Culeac, I. Bulhac, L. Cuba**<br>SYNTHESIS AND SPECTROSCOPIC PROPERTIES OF Zn(II)/Cd(II) SCHIFF BASE COMPLEXES<br>*Institute of Applied Physics, MSU* | |
| GPAM P3 | **E. Condrea**<br>FEATURES OF ZEEMAN SPLITTING IN UNIAXIALLY DEFORMED BISMUTH WIRES<br>*Institute of Electronic Engineering and Nanotechnologies, TUM* | |
| GPAM P4 | **D. P. Dvornikov, A. V. Siminel**<br>OBSERVATION OF RESONANT PHOTOLUMINESCENCE FROM DEEP ENERGY CONTINUUM OF LAYER SEMICONDUCTOR InSe<br>*Institute of Electronic Engineering and Nanotechnologies, TUM* | |
| GPAM P5 | **V. Batîr, I. Anefnaf, S. Aazou, N. Curmei, L. Dermenji, Z. Sekkat, E. Arushanov, M. Guc**<br>STRUCTURAL, VIBRATIONAL AND OPTICAL PROPERTIES OF $Ag_2(Zn,Cd)(Sn,Ge)S_4$ THIN FILMS SUBJECTED TO THERMAL ANNEALING<br>*Institute of Applied Physics, MSU* | |
| GPAM P6 | **N. Nedeoglo, T. Goglidze, E. Goncearenco, V. Sirkeli, D. Nedeoglo**<br>RADIATIVE PROPERTIES OF NANOSIZED ZnO:Ag POWDERS<br>*Faculty of Physics and Engineering, MSU* | |

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| GPAM P7 | **V. Batîr, D. Usenco, N. Curmei, L. Dermenji, K. G. Lisunov, E. Arushanov**<br>EFFECT OF SYNTHESIS ATMOSPHERE ON STRUCTURAL AND TRANSPORT PROPERTIES OF $(Ag_xCu_{1-x})_2ZnSnS_4$ SOLID SOLUTIONS<br>*Institute of Applied Physics, MSU* | |
| GPAM P8 | **L. Prodan, I. Filippova, D. Croitori, S. Moldovanu, S. Shova, O. Grendal, V. Tsurkan**<br>SYNTHESIS AND CRYSTAL GROWTH OF ALTERMAGNET CANDIDAT $Fe_{2-x}Zn_xMo_3O_8$: COMPOZITION AND STRUCTURAL ANALYSIS<br>*University of Augsburg, Germany · Institute of Applied Physics, MSU* | |
| GPAM P9 | **I. Inculet, M. A. Koltsov, S. Moldovanu, N. Spalatu, G. V. Colibaba**<br>PROSPECTS OF CHEMICAL VAPOR TRANSPORT FOR SINTERING OF $ZnO_{1-x}Se_x$ ALLOYS<br>*Institute of Applied Physics, MSU* | |
| GPAM P10 | **V. Pintea, E. Arama, T. Shemyakova**<br>COMPARATIVE ANALYSIS OF ENERGY TRANSFER AND RADIATIVE RECOMBINATION PROCESSES IN $ZnIn_2S_4$ AND $CdIn_2S_4$ SINGLE CRYSTALS STUDIED BY LUMINESCENCE SPECTROSCOPY<br>*Technical University of Moldova* | |
| GPAM P11 | **D. Rusnac, N. Spalatu, G. V. Colibaba**<br>STRUCTURAL, OPTICAL AND ELECTRICAL PROPERTIES OF $(ZnO)_kGa_2O_3$ CERAMICS AND THIN FILMS<br>*Institute of Applied Physics, MSU* | |
| GPAM P12 | **G. V. Colibaba, S. Moldovanu, D. Rusnac, N. Spalatu**<br>LOW-TEMPERATURE SINTERING OF $Zn_kIn_2O_{k+3}$ COMPOUND OXIDES BY CHEMICAL VAPOR TRANSPORT<br>*Institute of Applied Physics, MSU* | |
| GPAM P13 | **A. Nateprov, Yu. Goryunov**<br>QUANTUM NEMATIC TRANSITION IN THE $EuMe_2Pn_2$ COMPOUNDS<br>*Institute of Applied Physics, MSU* | |
| GPAM P14 | **G. V. Colibaba, M. A. Koltsov, N. Spalatu**<br>FEATURES OF $Bi_2S_3$ CRYSTAL GROWTH<br>*Institute of Applied Physics, MSU* | |
| GPAM P15 | **L. Dermenji, V. Batîr, N. Curmei, V. Zalamai, G. Gurieva, D. Podgornîi, D. Usenco, E. Arushanov**<br>SYNTHESIS OF ACZTS THIN FILMS IN DIFFERENT GAS ATMOSPHERES<br>*Institute of Applied Physics, MSU* | |

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| EMDC P1 | **S. Sergeev, A. Meshalkin, I. Cojocaru**<br>MULTI-BEAM LIGHT DIFFRACTION FROM CROSSED GRATINGS<br>*Institute of Applied Physics, MSU* | |
| EMDC P2 | **A. Chirita, N. Nasedchina, S. Vatavu**<br>POLYMER/CHALCOGENIDE SEMICONDUCTOR STRUCTURE FOR X-RAY AND HOLOGRAPHIC IMAGING<br>*Institute of Applied Physics, MSU* | |
| EMDC P3 | **V. Morari, V. Suman, E. Monaico, E. V. Rusu**<br>TOPOLOGICAL AND PHOTOELECTRICAL PROPERTIES OF In- AND Al-DOPED ZnSnO THIN FILMS PREPARED BY SPRAY PYROLYSIS<br>*Ghitu Institute of Electronic Engineering and Nanotechnologies, TUM* | |
| EMDC P4 | **D. P. Dvornikov, A. V. Siminel**<br>DFB LASER-BASED PROTOTYPE METHANE SENSOR<br>*Ghitu Institute of Electronic Engineering and Nanotechnologies, TUM* | |
| EMDC P5 | **D. Untila, D. Rusnac, G. Colibaba, C. Radu, A. E. Bocirnea, C. Besleaga, A. C. Galca, M. Koltsov, A. Katerski, I. O. Acik, N. Spalatu**<br>INVESTIGATION OF CLOSE-SPACED SUBLIMATION DEPOSITION OF SOLAR CELL ABSORBER LAYERS USING AgSbS2 AS SOURCE MATERIAL<br>*Tallinn University of Technology, Estonia · Moldova State University* | |
| EMDC P6 | **V. Suman, L. Ghimpu, V. Morari, I. Lungu, V. Ursu, V. Zalamai, E. Monaico, E. Rusu, Ed. Monaico**<br>HETEROGUNCTION DEVICES FABRICATED USING n-TYPE ZnO SPUTTERING COMBINED WITH p-TYPE Cu2O RF SPUTTERING<br>*Ghitu Institute of Electronic Engineering and Nanotechnologies, TUM* | |
| EMDC P7 | **A. Prisacaru, C. M. Popescu, V. Mirovski**<br>ASSESSMENT OF RADIOFREQUENCY LEVELS FOR PUBLIC ELECTROMAGNETIC FIELD EXPOSURE CHARACTERIZATION IN URBAN 2G–5G AND WI-FI NETWORKS: A CASE STUDY<br>*Moldova State University · Technical University of Moldova* | |
| EMDC P8 | **V. Botnari, V. Cazac, V. Abashkin, E. Achimova, C. Losmanschii, D. Muntean**<br>JONES MATRIX CHARACTERIZATION OF POLARIZATION GRATINGS RECORDED IN As2S3–Se NANOMULTILAYERS<br>*Institute of Applied Physics, MSU* | |
| EMDC P9 | **B. Constantinov**<br>STUDY OF ELECTROHYDRODYNAMIC INSTABILITIES IN AN ELECTRICALLY CHARGED DIELECTRIC LIQUID UNDER MICROGRAVITY FOR ELECTROMAGNETIC RADIATION DETECTION AND CONVERSION<br>*Institute of Applied Physics, MSU* | |

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| EMDC P10 | **D. Spoială, E. Vatavu, Ig. Narolschi, V. Nicorici, M. Rusu, S. Vatavu**<br>TECHNOLOGICAL AND MORPHOLOGICAL ASPECTS OF GaSe THIN FILMS PREPARED ON SAPPHIRE SUBSTRATES<br>*Faculty of Physics and Engineering, MSU* | |
| EMDC P11 | **E. Bercu, L. Gorceac, A. Scafaru, P. I. Chetruș, I. Maistruc, S. Vatavu**<br>EXTERNAL FACTORS' INFLUENCE ON THE PARAMETERS OF InP PHOTOVOLTAIC CELLS<br>*Faculty of Physics and Engineering, MSU* | |

## WEDNESDAY, 2ND SEPTEMBER 2026

| Hall "Regina Maria" – 137/C<br>Plenary Session | | SCAN FOR THE ABSTRACT |
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| 9:00 | **P. Sai, V. Korotyeyev, M. Dub, M. Orlita, W. Knap**<br>MAGNETOPLASMONIC CRYSTALS<br>*CENTERA Labs Institute of High Pressure Physics · Warsaw University of Technology, Poland* | |
| 9:30 | **M. Grossberg-Kuusk**<br>Tailoring the defect structure of $Sb_2Se_3$<br>*Tallinn University of Technology, Estonia* | |
| 10:00 | **M. Stef, C. Schörnig, P. Veber, G. Buse, M. Poienar, D. Vizman**<br>LUMINESCENCE OF RARE-EARTH IONS DOPED IN FLUORITE CRYSTALS<br>*West University of Timişoara, Romania* | |
| 10:30 | **S. Irimiciuc, P. Hruška, E. Marešová, L. Volfova, S.Cichoň, S. Chertopalov, V.Grumezescu, V. Craciun, S. Vatavu, J. Lancok**<br>MICROWAVE ABSORBERS BASED ON HIGH-ENTROPY ALLOYS DEVELOPED BY PHYSICAL VAPOR DEPOSITION TECHNIQUES<br>*Institute of Physics, Czechia · INFLPR, Romania* | |
| 11:00 – 11:30 | COFFEE BREAK | |
| 11:30 | **R. Ošťádal**<br>Advances in Compositional Analysis using ChemiSEM Technology<br>*Thermo Fisher Scientific - Electron Microscopy* | |
| 12:00 – 13:30 | LUNCH BREAK | |

## Hall "Regina Maria" – 137/C

## Oral Session – Condensed Matter Theory – B (CMT-B)

SCAN FOR THE ABSTRACT

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| 13:30<br>Keynote | **A. Stoica, A. Isar**<br>GENERATION OF QUANTUM CORRELATIONS IN CONTINUOUS-VARIABLE OPEN QUANTUM SYSTEMS<br>*National Institute of Physics and Nuclear Engineering, Romania* | |
| 13:55<br>Keynote | **S. Ostrovsky, S. Klokishner**<br>CHANGE IN MAGNETIC AND POLARIZATION CHARACTERISTICS FACILITATED BY REDISTRIBUTION OF ELECTRON DENSITY IN THE [FECO] COMPLEX<br>*Institute of Applied Physics, Moldova State University* | |
| 14:20 | **A. A. Barsuk, F. Paladi**<br>BAND-GAP SPECTRA AND HARMONIC WAVE MODES IN AN INFINITE STRING WITH PERIODIC ELASTIC CONSTRAINTS<br>*Moldova State University* | |
| 14:35 | **V. P. Sirkeli, S. I. Caragacian, Iu. B. Boris, D. L. Nika**<br>QUANTUM WELL ENGINEERING FOR HIGH-EFFICIENCY InGaN-BASED RED LEDs<br>*Moldova State University* | |
| 14:50 | **K. Zdunek, T. Korona, A. Więckowska**<br>ELECTROCHEMICAL AND SPECTROSCOPIC SIGNATURES OF THE JAHN–TELLER EFFECT IN PLATINUM-MONODOPED $Au_{24}Pt(SR)_{18}$ CLUSTERS<br>*University of Warsaw, Poland* | |
| | COFFEE BREAK | |
| 15:35<br>Keynote | **S. Cojocaru, L. Dohotaru**<br>INTRINSIC STABILIZATION OF THIN-PLATE ACOUSTIC RESONATORS AGAINST BOTH TEMPERATURE AND PRESSURE VARIATIONS<br>*National Institute for Physics and Nuclear Engineering, Romania* | |
| 16:00 | **T. Mihaescu**<br>NEGATIVE PARTIAL TRANSPOSE ENTANGLEMENT WITNESSES BASED ON SECOND MOMENTS<br>*National Institute of Physics and Nuclear Engineering, Romania* | |
| 16:15 | **N. Gubceac, N. Ciobanu, V. Tronciu**<br>COMPLEX DYNAMICS OF INTERACTION BETWEEN CANCER AND IMMUNE SYSTEMS<br>*Technical University of Moldova · State University of Medicine and Pharmacy* | |
| 16:30 | **V. Ceban, A. Cudreașov, A. Rotari, I. Cebotari**<br>PASSIVE QUANTUM COOLING IN OPTOMECHANICAL DEVICES<br>*Institute of Applied Physics, Moldova State University, Moldova* | |

**Hall 2 – 141/C**

**Oral Session – Design and Structural Engineering of Functional Materials (DSEFM)**

SCAN FOR THE ABSTRACT

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| 13:30<br>Keynote | **E. Gorincioi, A. Arîcu**<br>SUPERACIDIC CYCLIZATION AND BEYOND: THE OUTSTANDING INPUT OF ACAD. P.VLAD TO CHEMISTRY OF TERPENOIDS<br>*Institute of Chemistry of Moldova State University* | |
| 13:55 | **D. Podgornii, J. van Leusen, V. Ch. Kravtsov, Y. Skourski, P. Kögerler, S. G. Baca**<br>SYNTHESIS AND MAGNETIC PROPERTIES OF HEXANUCLEAR $\{Fe_4Ln_2\}$ CLUSTERS BASED ON CARBOXYLATE AND AMINO-POLYALCOHOL LIGANDS<br>*Institute of Applied Physics, Moldova State University* | |
| 14:10 | **N. Sucman, R. Rzayev, I. Geru, F.Macaev**<br>NMR SPECTROSCOPY AS A TOOL FOR STRUCTURAL ELUCIDATION OF OLIGOMERS OBTAINED BY OXIDATIVE POLYCONDENSATION OF AROMATIC AMINES WITH DIHYDROXYBENZENES<br>*Institute of Chemistry, Moldova State University* | |
| 14:25 | **N. Bolocan, E. Gorincioi, C. Vicol, A. Barba, G. Duca**<br>MECHANISTIC INSIGHTS INTO THE SYNERGISTIC AND ANTAGONISTIC RADICAL-SCAVENGING DYNAMICS OF RESVERATROL-ASCORBIC ACID COMBINATIONS<br>*Institute of Chemistry, Moldova State University* | |
| 14:40 | **E. Beleaev, S. G. Baca**<br>CRYSTAL ENGINEERING OF Co(II/III) CLUSTER-BASED COORDINATION POLYMERS<br>*Institute of Applied Physics, Moldova State University* | |
| 14:55 | **A. Pîntea, R. Rusnac, V. Tsapkov, S. Shova, A. Gulea**<br>DESIGN AND SYNTHESIS OF A COPPER (II) COMPOUND WITH N-(4-METHOXYPHENYL)-2-[1-(PYRIDIN-2-YL)ETHYLIDENE]HYDRAZINE-1-CARBOTHIOAMIDE<br>*Institute of Chemistry, Moldova State University* | |

COFFEE BREAK

## Hall 3 – 145/C

## Oral Session – Solid State Nanophysics and Nanotechnology (SSNN)

SCAN FOR THE ABSTRACT

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| 13:30 | **A. S. Sidorenko** ***(to be presented on 4th September)***<br>FUNCTIONAL NANOSTRUCTURES AND NANOMATERIALS FOR NEUROMORPHIC COMPUTING<br>*Technical University of Moldova* | |
| 13:45 | **E. V. Monaico, E. I. Monaico, V. V. Ursaki, I. M. Tiginyanu**<br>MORPHOLOGY DESIGN IN POROUS GALLIUM ARSENIDE THROUGH CRYSTALLOGRAPHIC CONTROL AND ELECTROCHEMICAL NANOSTRUCTURING<br>*Technical University of Moldova* | |
| 14:00 | **T. Braniste, I. Tiginyanu**<br>THICKNESS-INDUCED TUNING OF ELECTRICAL AND PHOTOELECTRIC PROPERTIES IN ULTRALIGHT AERO-GaN/ZnO TETRAPOD NETWORKS<br>*Technical University of Moldova* | |
| 14:15 | **V.V. Zalamai, A.V. Tiron, I.G. Stamov, E.V. Rusu**<br>LAYERED SEMICONDUCTORS AND THEIR NANOSTRUCTURES: EXCITONS, POLARITONS, AND OPTICAL PHENOMENA<br>*Technical University of Moldova* | |
| 14:30 | **V. V. Ursaki, V. Morari, I. M. Tiginyanu**<br>$Ga_2O_3$ BASED COMPOSITE FIMS AND AEROMATERIALS FOR MICROFLUIDIC, OPTOELECTRONIC AND PHOTO-ELECTROCHEMICAL APPLICATIONS<br>*Technical University of Moldova · Academy of Sciences of Moldova* | |
| 14:45 | **O. Shikimaka, D. Grabco, C. Pyrtsac, A. Prisacaru, D. Spoiala**<br>NANOINDENTATION OF MgO: POP-IN EVENTS DEVELOPMENT UNDER DIFFERENT LOADING CONDITIONS<br>*Institute of Applied Physics, Moldova State University* | |
| 15:00 | **V. Tronciu, S. Rusu, T. Oloinic**<br>NONLINEAR DYNAMICS OF QUANTUM DOT LASERS UNDER CONVENTIONAL AND FILTERED OPTICAL FEEDBACK<br>*Technical University of Moldova* | |
| 15:15 | **N. Siminel, A. Micu, C. Slobodeniuc, A. Siminel, L. Kulyuk**<br>LUMINESCENCE AND RADIATIVE DECAY KINETICS OF BOUND EXCITONS IN HALOGEN-INTERCALATED TRANSITION METAL DICHALCOGENIDES<br>*Institute of Applied Physics, Moldova State University* | |

COFFEE BREAK

## Poster Session B (15:00 – 17:30)

SCAN FOR THE ABSTRACT

### Design and Structural Engineering of Functional Materials (DSEFM)

### Solid State Nanophysics and Nanotechnology (SSNN)

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| DSEFM P1 | **T. Potlog, I. Lungu, R. Tigoianu, A. Airinei**<br>SPECTROSCOPIC STUDY OF ALUMINUM AND SILICON CHLOROPHTHALOCYANINES<br>*Institute of Applied Physics, MSU; Institute of Macromolecular Chemistry, Romania* | |
| DSEFM P2 | **D. Stati, V. Ch. Kravtsov, P. Kögerler, S. G. Baca**<br>FROM BUTTERFLIES TO WHEELS: EVOLUTION OF NUCLEARITY AND TOPOLOGY IN HETEROMETALLIC Co-La CLUSTERS DIRECTED BY AMINO-ALCOHOL AND CARBOXYLATE LIGANDS<br>*Institute of Applied Physics, MSU* | |
| DSEFM P3 | **E. Beleaev, V. Ch. Kravtsov, S. G. Baca**<br>A NEW COBALT(II) COORDINATION POLYMER BASED ON DINUCLEAR PIVALATE BUILDING UNITS AND PYRAZINE LINKERS<br>*Institute of Applied Physics, MSU* | |
| DSEFM P4 | **E. Beleaev, D. Brüx, J. van Leusen, P. Kögerler, S. G. Baca**<br>A HEPTANUCLEAR HETEROMETALLIC $\{Co^{III}_4Co^{II}_2Gd^{III}\}$ PIVALATE CLUSTER SUPPORTED BY N-BUTYLDIETHANOLAMINE LIGANDS<br>*Institute of Applied Physics, MSU* | |
| DSEFM P5 | **E. Beleaev, D. Brüx, J. van Leusen, P. Kögerler, S. G. Baca**<br>NEW HEXANUCLEAR $\{Co_3Tb_3\}$ NANOCLUSTER CONSTRUCTED BY METHYLDIETHANOLAMINE AND PIVALATE LIGANDS<br>*Institute of Applied Physics, MSU* | |
| DSEFM P6 | **P. Cebotaru, O. Cuzan, S. Shova, V. Lozan**<br>SYNTHESIS AND CHARACTERISATION OF A NOVEL Cu(II) SEBACATE WITH 2,2'-BIPYRIDINE<br>*Institute of Chemistry, MSU* | |
| DSEFM P7 | **N. Craciun, V. Ch. Kravtsov, M. S. Fonari**<br>CRYSTAL STRUCTURE OF 1D COORDINATION POLYMER CATENA-(BIS($\mu_2$-4,4'-OXYDIANILINE)-($\mu_2$-PHENANTHROLINE)-CADMIUM (II) PERCHLORATE)<br>*Institute of Applied Physics, MSU* | |
| DSEFM P8 | **O. Danilescu, I. Bulhac, M. Cocu, P. Bourosh, Yu. Chumakov**<br>CRYSTAL AND ELECTRONIC STRUCTURE OF MACROCYCLIC TRINUCLEAR COMPLEX OF Co(II)<br>*Institute of Chemistry, MSU; Technical University of Moldova* | |

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| DSEFM P9 | **O. Danilescu, I. Bulhac, P. Bourosh, O. Kulikova, Yu. Chumakov**<br>TUNING THE PHOTOLUMINESCENCE PERFORMANCE OF Cd(II) POLYMERS THROUGH POLYMORPHISM<br>*Institute of Chemistry, MSU* | |
| DSEFM P10 | **Yu. Chumakov, M. Cocu, I. Bulhac, V. Kravtsov, P. Bourosh, O. Kulikova, O. Danilescu**<br>PHOTOLUMINESCENCE PROPERTIES AND DFT CALCULATIONS OF ISOMORPHIC ONE-DIMENSIONAL COORDINATION POLYMERS OF Zn(II) AND Cd(II) BASED ON A DIHYDRAZONE LIGAND WITH TERMINAL N-DONOR PYRIDINE FRAGMENTS<br>*Institute of Applied Physics, MSU; Institute of Chemistry, MSU* | |
| DSEFM P11 | **I. Bulhac, E. Melnic, V. Ghenea, O. Danilescu, I. Culeac**<br>MONONUCLEAR Eu(III) COMPLEX OF 2,6-DIACETYLPYRIDINE BIS(NICOTINOYLHYDRAZONE): SYNTHESIS AND CRYSTAL STRUCTURE<br>*Institute of Chemistry, MSU* | |
| DSEFM P12 | **A. A. Vitiu, P. N. Bourosh**<br>A NOVEL ONE-DIMENSIONAL CADMIUM(II) COORDINATION POLYMER: SYNTHESIS AND STRUCTURAL CHARACTERIZATION<br>*Institute of Applied Physics, MSU* | |
| DSEFM P13 | **S. Melnic, D. Bejan, S. Shova, V. Lozan**<br>DESIGN AND CHARACTERIZATION OF A NEW CADMIUM(II) METAL–ORGANIC FRAMEWORK<br>*Institute of Chemistry, MSU; " State University of Medicine and Pharmacy* | |
| DSEFM P14 | **A. Gorobet, M. E. Crisan, P. N. Bourosh, O. V. Kulikova, L. Croitor**<br>CRYSTAL PACKING-DIRECTED LUMINESCENCE IN POTASSIUM COORDINATION POLYMERS BASED ON POSITIONAL ISOMERS OF CHLORONITROBENZOIC ACID<br>*Institute of Applied Physics, MSU* | |
| DSEFM P15 | **V. Gorinchoy, G. Roman, S. Shova, V. Lozan**<br>THE COORDINATION COMPOUND OF Mn(II) DERIVED FROM 5-(4-CARBOXY-5-METHYL-1H-1,2,3-TRIAZOL-1-YL)ISOPHTHALIC ACID<br>*Institute of Chemistry, MSU* | |
| DSEFM P16 | **V. Gorinchoy, S. Melnic, O. Cuzan, S. Shova**<br>DINUCLEAR COPPER(II) COMPLEX WITH 5-CHLOROSALICYLIC ACID<br>*Institute of Chemistry, MSU* | |
| DSEFM P17 | **V. Avdeev, M. S. Fonari, P. Bourosh**<br>CRYSTAL STRUCTURE OF ZINC(II) PENTANUCLEAR CLUSTER BASED ON BENZOTRIAZOLE<br>*Institute of Applied Physics, MSU* | |

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| DSEFM P18 | **E. Neguta, S. Shova, G. Roman, A. Siminel, Y. Chumakov, V. Lozan**<br>3D COORDINATION POLYMERS OF LANTHANIDES WITH 5-(4-CARBOXYPHENYL)-1-PHENYL-1H-PYRAZOLE-3-CARBOXYLIC ACID<br>*Institute of Chemistry, MSU* | |
| DSEFM P19 | **M. Mînăscurtă, T. Jovmir, S. Shova, V. Lozan**<br>SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF A SERIES OF Cu(II) COMPLEXES WITH 2-SALICYLIDENHYDRAZON-THIAZOLIDIN-4-ONE AND MONO- OR BIDENTATE AMINES<br>*Institute of Chemistry, MSU* | |
| DSEFM P20 | **D. Ureche, P. Bourosh, I. Bulhac**<br>EFFICIENT SYNTHESIS OF TRANS-DIOXIMES THROUGH THE CONDENSATION OF PYRIDINE AND γ-PICOLINE WITH DICHLOROGLYOXIME<br>*Institute of Chemistry, MSU* | |
| DSEFM P21 | **O. Capbătut, D. Brüx, J. van Leusen, P. Kögerler, S. G. Baca**<br>SYNTHESIS AND CHARACTERIZATION OF A TRINUCLEAR HETEROMETALLIC $\{CeCu_2\}$ CLUSTER WITH PIVALATE AND TRIETHANOLAMINE LIGANDS<br>*Institute of Applied Physics, MSU* | |
| DSEFM P22 | **R. Derivolcova, O. Capbătut, V. Ch. Kravtsov, S. G. Baca**<br>A DODECANUCLEAR Mn(II, III) CLUSTER BASED ON ISOBUTYRIC AND 1,1,1-TRIS(HYDROXYMETHYL)PROPANE LIGANDS<br>*Institute of Applied Physics, MSU* | |
| DSEFM P23 | **M. Ceabanova, E. Stîngaci, N. Sucman, V. Pogrebnoi, M. Neamtu, F. Z. Macaev**<br>PREPARATION OF TETRACHLOROFERRATES(III) IONIC LIQUIDS CONTAINING IMIDAZOLIUM AND PYRIDINIUM CATIONS<br>*Institute of Chemistry, MSU* | |
| DSEFM P24 | **A. Trofaila, V. Ch. Kravtsov, S. G. Baca**<br>A 1D COORDINATION POLYMER BASED ON HETEROMETALLIC OXO-CENTERED $\{Na_2Fe_6\}$ CLUSTERS: SYNTHESIS AND STRUCTURAL CHARACTERIZATION<br>*Institute of Applied Physics, MSU* | |
| DSEFM P25 | **I. Voda, V. Druta, S. Shova, V. Lozan**<br>MOLECULAR STRUCTURE OF A NEW 1D COBALT(II) COORDINATION POLYMER BASED ON SEBACIC ACID AND 4,4'-BIS(1H-IMIDAZOL-1-YLMETHYL)BENZENE<br>*Institute of Chemistry, MSU* | |

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| DSEFM P26 | **N. Talmaci, D. Dragancea, S. Shova**<br>SYNTHESIS AND LUMINESCENT PROPERTIES OF Zn(II) COORDINATION COMPOUNDS BASED ON 1,5-BIS(3,5-DI-TERT-BUTYL-SALICYLALDEHYDE)CARBOHYDRAZONE<br>*Institute of Chemistry, MSU* | |
| DSEFM P27 | **B. Mindrescu, N. Popa, S. Shova, I. Bulimestru**<br>SYNTHESIS AND CHARACTERIZATION OF COORDINATION COMPOUNDS OF Cu(II) AND Bi(III) WITH SOME BENZOYLHYDRAZONES AND AMINOPOLYCARBOXYLATE LIGANDS<br>*Moldova State University* | |
| DSEFM P28 | **L. Lungu, A. Ciocârlan, S. Shova, A. Arîcu**<br>SYNTHESIS AND X-RAY ANALYSIS OF N-(13,14,15,16-TETRANORLABD-7-OXO-8-EN-11-OYL)PHENOTHIAZINE<br>*Institute of Chemistry, MSU* | |
| DSEFM P29 | **I. Balan, R. Nastas**<br>COMPUTATIONAL MODELING OF MB ADSORPTION ON THE PAH-AC SURFACE<br>*Institute of Chemistry, MSU* | |
| DSEFM P30 | **L. Lungu, C. Vicol, V. Pogrebnoi, A. Ciocârlan, A. Arîcu**<br>DESIGN AND ANTIRADICAL ACTIVITY OF A NOVEL MOLECULAR HYBRID BASED ON A HOMODRIMANE SCAFFOLD INCORPORATING THIOSEMICARBAZIDE AND OXADIAZOLE UNITS<br>*Institute of Chemistry, MSU* | |
| SSNN P1 | **V. I. Boian, R. Morari, V. M. Fomin, N. Perez, J. Scheiter, A. Sidorenko**<br>MAGNETIC METAMATERIALS FOR SPIN – VALVE STRUCTURES AND FOR ARTIFICIAL NEURAL NETWORK BASE ELEMENTS<br>*Ghitu Institute of Electronic Engineering and Nanotechnologies, TUM* | |
| SSNN P2 | **L. A. Konopko, A. A. Nikolaeva, T. E. Huber**<br>OBSERVATION OF YAMAJI MAGIC ANGLES IN BISMUTH SURFACES<br>*Technical University of Moldova* | |
| SSNN P3 | **A. A. Nikolaeva, L. A. Konopko, T. E. Huber, Gh. I. Para, I. Gh. Ghergishan**<br>ELECTRICAL TRANSPORT PROPERTIES OF Bi0.98Sb0.02 NANOWIRES IN SEMIMETAL AND SEMICONDUCTOR STATES<br>*Technical University of Moldova* | |
| SSNN P4 | **V. Morari, D. Bragari, V. Suman, E. V. Rusu**<br>ELECTRICAL AND PHOTOELECTRICAL PROPERTIES OF Ga-DOPED Zn2:1Sn THIN FILMS OBTAINED BY SPRAY PYROLYSIS<br>*Ghitu Institute of Electronic Engineering and Nanotechnologies, TUM* | |

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| SSNN P5 | **T. D. Gutsul, I. O. Rastimesina, A. J. Sibaev, E. P. Condrea, I. I. Belotercovschii**<br>INTRINSIC PEROXIDASE-LIKE ACTIVITY OF ZnO/MgFe2O4 PEG NANOCOMPOSITES AND THEIR APPLICATION IN THE COLORIMETRIC DETECTION OF H2O2<br>*Ghitu Institute of Electronic Engineering and Nanotechnologies, TUM* | |
| SSNN P6 | **S. A. Baranov**<br>MICRO AND NANOWIRE AND ITS APPLICATION<br>*Institute of Applied Physics, MSU* | |
| SSNN P7 | **S. Barladean, N. Siminel**<br>SOLVENT-DEPENDENT EFFICIENCY OF ULTRASONIC LIQUID-PHASE EXFOLIATION OF TMD CRYSTALS<br>*Faculty of Physics and Engineering, MSU; Institute of Applied Physics, MSU* | |
| SSNN P8 | **V. Goremichin, N. Siminel, C. Slobodeniuc, L. Kulyuk**<br>OPTIMIZATION OF THE GROWTH TECHNOLOGY OF $TiS_2$, $WS_2$, AND $MoS_2$ SINGLE CRYSTALS FOR SUPERCAPACITOR APPLICATIONS<br>*Institute of Applied Physics, MSU* | |

## THURSDAY, 3RD SEPTEMBER 2026

**Hall "Regina Maria" – 137/C**

**Plenary Session**

SCAN FOR THE ABSTRACT

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| 9:00 | **A. Dinescu, M. Dragoman, D. Dragoman, A. Avram, O. Simionescu, C. Parvulescu**<br>ELECTRON BEAM LITHOGRAPHY FOR 2D MATERIAL-BASED DEVICES<br>*IMT Bucharest, Romania* | |
| 09:30 | **S. Zherlitsyn**<br>FRACTIONALIZED EXCITATIONS PROBED BY ULTRASOUND<br>*Helmholtz-Zentrum Dresden-Rossendorf, Germany* | |
| 10:00 | **S. N. Klimin, J. Tempere, M. Houtput, I. Zappacosta, S. Ragni, T. Hahn, L. Celiberti, C. Franchini, A. S. Mishchenko**<br>EXTENDED FEYNMAN VARIATIONAL PRINCIPLE AND RELATED ANALYTICAL METHODS FOR LATTICE POLARONS<br>*TQC, Universiteit Antwerpen, Antwerpen, Belgium* | |
| 10:30 | **C. Pașcu Moca**<br>QUANTUM GENERATING FUNCTIONS AND UNIVERSAL FAMILY-VICSEK SCALING IN NONEQUILIBRIUM QUANTUM MANY-BODY SYSTEMS<br>*University of Oradea, Romania ·Budapest University of Technology and Economics, Hungary* | |
| 11:00 – 11:30 | COFFEE BREAK | |
| 11:30 | **V. Tsurkan**<br>PROGRESS IN RESEARCH ON TERNARY MAGNETIC SPINELS: IN MEMORY OF THE ACADEMICIAN S. RADAUTSAN<br>*Institute of Applied Physics, Moldova · University of Augsburg, Germany* | |
| 12:00 – 13:00 | LUNCH BREAK | |

**Hall "Regina Maria" – 137/C**

**Oral Session – Design and Structural Engineering of Functional Materials (DSEFM)**

SCAN FOR THE ABSTRACT

13:00 **A. S. Batanov, N. S. Sucman, S. Shova, G. Balan, E. C. Gorincioi, F. Z. Macaev**

SYNTHESIS OF NOVEL MOLECULAR HYBRIDS: 2-(1-ETHYL-2-OXOINDOLIN-3-YLIDENE)HYDRAZONO)-THIAZOLIDIN-4-ONE AND ITS DERIVATIVE BY KNOEVENAGEL CONDENSATION

*Institute of Chemistry, Moldova State University*

13:15 **A. Ciursin, R. Rusnac, G. Ghileţchii, S. Vatavu, A. Gulea**

SYNTHESIS AND XRD STUDY OF SOME α-HEXYLCINNAMALDEHYDE THIOSEMICARBAZONES

*Institute of Chemistry, Moldova State University*

13:30 **D. Feldman, A. Simion, E. Gorincioi, N. E. Dina, F. Z. Macaev**

NOVEL BIOACTIVE AMINONAPHTHOQUINONES: DESIGN, SYNTHESIS AND SPECTROSCOPIC STUDIES

*Institute of Chemistry, Moldova State University*

13:45 **A. Chiaburu, A. Besliu, I. Coretchi, I. Casian, A. Casian, E. Pavlovschi, I.-R. Tigoianu, B.-I. Ciubotaru, M.-F. Zaltariov**

MULTICOMPONENT MATRICES FOR CORNEAL REGENERATION WITH INSULIN/GLUCOSE SENSITIVE FLUORESCENCE

*Nicolae Testemitanu State University of Medicine and Pharmacy, Moldova*

14:00 **R. Rzayev, N. Sucman, B. A. Mammadov, R. Akhmedova, F. Macaev**

SYNTHESIS AND CHARACTERIZATION OF A MULTIFUNCTIONAL THERMOSTABLE CONDUCTIVE NANO-SIZED OLIGOMER BASED ON ORTHO-PHENYLENEDIAMINE AND CATECHOL

*Institute of Chemistry, Moldova · Institute of Polymer Materials, Azerbaijan Republic*

14:15 **I. Bosneaga**

OPTIMIZED THERMOACCUMULATION AS A CONDITION *SINE QUA NON* FOR ENSURING SUSTAINABLE DEVELOPMENT

*Institute of Applied Physics, Moldova State University*

COFFEE BREAK

## Hall 2 – 141/C

SCAN FOR THE ABSTRACT

### Oral Session - Materials engineering for Innovative and Sustainable Technologies (MEST)

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| 13:00<br>Keynote | **N. Tsyntsaru, T. K. Ratajczyk, H. Cesiulis, M. Donten**<br>FROM BINARY TUNGSTEN ALLOYS TO HIGH-ENTROPY ELECTROCATALYSTS: BALANCING ACTIVITY AND STABILITY IN HIGHLY ALKALINE MEDIA<br>*Institute of Applied Physics, Moldova State University · Vilnius University, Lithuania* | |
| 13:25 | **B.Gajewska, R. Malik, R. Motyka, A. Blacha-Grzechnik, M. Łapkowski, M. Czichy**<br>2-SUBSTITUTED 1H-PERIMIDINES AS A BUILDING BLOCKS FOR ELECTROACTIVE FUNCTIONAL MATERIALS<br>*Silesian University of Technology, Poland* | |
| 13:40 | **N. Kareva, M. Czichy**<br>INVESTIGATION OF ACRIDAN DERIVATIVES ELECTROCHEMISTRY BEHAVIOUR WITH IN-SITU AND EX-SITU METHODS<br>*Silesian University of Technology, Poland* | |
| 13:55 | **A. Ciursin, R. Rusnac, S. Shova, A. Gulea**<br>SYNTHESIS AND CRYSTAL STRUCTURE OF A NOVEL Cu(II) COORDINATION POLYMER BASED ON N-(2-(MORPHOLIN-4-YL)ETHYL)THIOSEMICARBAZONE OF 3-ETHOXYSALICYLALDEHYDE<br>*Institute of Chemistry, Moldova State University* | |

COFFEE BREAK

| Poster Session C (14:00 – 16:00) | | SCAN FOR THE ABSTRACT |
|---|---|---|
| | **Design and Structural Engineering of Functional Materials (DSEFM)** | |
| | **Materials Engineering for Innovative and Sustainable Technologies (MEST)** | |
| DSEFM P31 | **P. N. Bourosh, V. Ch. Kravtsov, I. S. Kravchuk, V. O. Graur, A. S. Cotovaia, O. S. Garbuz, A. P. Gulea**<br>CRYSTAL STRUCTURES OF TWO MIXED-LIGAND COPPER(II) COORDINATION COMPOUND WITH METHYL N'-[(2-HYDROXYPHENYL)METHYLIDENE]-N-(PROP-2-EN-1-YL)CARBAMOHYDRAZONOTHIOATE<br>*Institute of Chemistry, MSU* | |
| DSEFM P32 | **I. Balan, M. Gorbaciov, N. Gorinchoy, O. Moroz**<br>ANTIOXIDANT ACTIVITY OF IONIC LIQUIDS FORMED BY CARNITINE AND FOOD ACIDS: A COMPUTATIONAL STUDY<br>*Institute of Chemistry, MSU* | |
| DSEFM P33 | **E. I. Melnic, P. N. Bourosh, I. I. Graur, V. O. Graur, O. S. Garbuz, V. I. Tsapkov, A. P. Gulea**<br>CRYSTAL STRUCTURES OF TWO SUBSTITUTED PYRUVAMIDE THIOSEMICARBAZONES<br>*Institute of Chemistry, MSU* | |
| DSEFM P34 | **E. I. Melnic, P. N. Bourosh, I. I. Graur, V. O. Graur, O. S. Garbuz, V. I. Tsapkov, A. P. Gulea**<br>CRYSTAL STRUCTURES OF A PYRUVAMIDE THIOSEMICARBAZONE AND ITS NICKEL(II) COORDINATION COMPOUND<br>*Institute of Chemistry, MSU* | |
| DSEFM P35 | **A. Besliu, A. Chiaburu, I. Casian, A. Casian, I. Coretchi, A. Sulaiman, D. Peptanariu, M.-F. Zaltariov, B.-I. Ciubotaru**<br>KAEMPFEROL-BASED BIOCOMPOSITES: PREPARATION, CHARACTERIZATION AND APPLICATION IN CORNEAL HEALING<br>*Nicolae Testemitanu State University of Medicine and Pharmacy, Moldova* | |
| DSEFM P36 | **V. Suman**<br>GOLD NANOPARTICLE-CONJUGATED PHTHALOCYANINES (AuNPs)<br>*Moldova State University; Technical University of Moldova* | |
| DSEFM P37 | **I. Coretchi, A. Casian, I. Casian, A. Besliu, A. Chiaburu, C. Ceban, D. Peptanariu, M. Balan-Porcarasu, S. L. Nica, M.-F. Zaltariov**<br>ADVANCES IN KAEMPFEROL FORMULATIONS: EXTRACTION, STRUCTURAL CHARACTERIZATION AND BIOLOGICAL ACTIVITY<br>*Nicolae Testemitanu State University of Medicine and Pharmacy, Moldova* | |

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| DSEFM P38 | **G. Zbancioc, A. M. Birgoanu, C. Moldoveanu, I. I. Mangalagiu, G. Tataringa, A. M. Zbancioc**<br>MICROWAVE ASSISTED REACTION OF FLUORESCENT PYRROLOQUINOLINE BUILDING BLOCKS<br>*"Al. I. Cuza" University of Iasi, Romania* | |
| DSEFM P39 | **M. P. Ceabanova, E. P. Stingaci, E. C. Gorincioi, G. Balan, N. E. Dina, F. Z. Macaev**<br>NOVEL QUATERNARY AMMONIUM SALT OF 2-TERT-BUTYL-3-(1H-1,2,4-TRIAZOL-1-YL)-2H-CHROMEN-2-OL WITH POTENT ANTIFUNGAL ACTIVITY<br>*Institute of Chemistry, MSU* | |
| DSEFM P40 | **V. S. Pogrebnoi, N. Sucman, M. Ceabanova, M. Neamtu, S. Shova, F. Z. Macaev**<br>NEW BIS-IMIDAZOLIUM IONIC LIQUIDS WITH DIFFERENT ANIONS<br>*Institute of Chemistry, MSU* | |
| DSEFM P41 | **M. Hitsiuc, O. Shikimaka, N. Serban, C. Pyrtsac, N. Kazak, A. Cuharuc**<br>MECHANICAL PROPERTIES MODIFICATION OF 316L STAINLESS STEEL AFTER SHOT PEENING TREATMENT<br>*Institute of Applied Physics, MSU* | |
| DSEFM P42 | **O. Palamarciuc, B. I. Ciubotaru, A. C. Stoica, M. Balan-Porcarasu, S. Shova, D. Peptanariu, M. Dascalu, M. Cazacu, V. B. Arion**<br>THIOSEMICARBAZIDE BASED MATERIALS AS DUAL MR2 RNR AND COLCHICINE-SITE TUBULIN INHIBITORS<br>*Moldova State University; Institute of Macromolecular Chemistry, Romania* | |
| DSEFM P43 | **R. Nastas, M. Stefan, I. Ceban, A. Varadi, I. Nesterovschi, D. Toloman, A. Popa, I. Balan, S. Macavei, T. Lupascu**<br>SYNTHESIS AND FUNCTIONAL EVALUATION OF TiO2-MODIFIED ACTIVATED CARBON COMPOSITES OBTAINED FROM PEACH STONES<br>*Institute of Chemistry, MSU* | |
| DSEFM P44 | **N. Ciobanu, B. Buttari, E. Profumo, N. Sucman, N. Bolocan, M. Rusu, E. Gorincioi, F. Z. Macaev**<br>NEW 3,4-DIHYDROPYRIMIDIN-2(1H)-THIONE DERIVATIVE THAT ACTIVATES THE Nrf2-DRIVEN ANTIOXIDANT RESPONSE<br>*Institute of Chemistry, MSU* | |
| DSEFM P45 | **E. P. Stingaci, M. P. Ceabanova, E. C. Gorincioi, N. E. Dina, K. Vuković Đerfi, T. Matijević Glavan, F. Z. Macaev**<br>NEW ANTICANCER QUATERNARY AMMONIUM SALT OF 2-TERT-BUTYL-3-(1H-1,2,4-TRIAZOL-1-YL)-2H-CHROMEN-2-OL WITH IMPROVED BIOAVAILABILITY<br>*Institute of Chemistry, MSU* | |

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| MEST P1 | **L. Mocanu, M. Gonta**<br>FUNCTIONAL $TiO_2$ NANOMATERIALS AND IRON-BASED CATALYTIC SYSTEMS FOR ADVANCED OXIDATION OF EMERGING PHARMACEUTICAL POLLUTANTS<br>*Institute of Chemistry, MSU* | |
| MEST P2 | **I. V. Paladii, E. Gh. Vrabie, V. Gh. Vrabie, T. G. Stepurina, A. A. Policarpov, C. Gh. Sprincean**<br>ASPECTS OF DIFFERENTIATED FRACTIONATION OF SERUM PROTEINS DURING WHEY ELECTROACTIVATION<br>*Institute of Applied Physics, MSU* | |
| MEST P3 | **R. I. Lascova-Baciu, S. S. Belevskiy**<br>METHODS FOR OBTAINING $MoS_2$ NANOMATERIALS VIA ULTRASOUND-ASSISTED ELECTROCHEMICAL INTERCALATION AND EXFOLIATION<br>*Institute of Applied Physics, MSU* | |
| MEST P4 | **A. Ya. Papchenko, G. D. Grecu**<br>INVESTIGATION OF THE EFFICIENCY OF THE EXTRACTION TECHNOLOGY FROM KIWI USING ELECTROPLASMOLYSIS AND MICROWAVE TREATMENT<br>*Institute of Applied Physics, MSU* | |
| MEST P5 | **Gh. Duca, O. Covaliova, L. Romanciuc, C. Tasca**<br>INDUSTRIAL-SCALE TESTING OF THE MODIFIED BIOGAS TREATMENT TECHNOLOGY OF LIQUID WINERY WASTES<br>*Institute of Chemistry, MSU* | |
| MEST P6 | **V. Mihailov, S. Ivașcu, M. V. Lungu, D. Croitoru, Sp. Iațco, A. Ianachevici, I. Ion, D. Pătroi, V. E. Marinescu, D. Tălpeanu**<br>TRIBOLOGICAL BEHAVIOR OF ELECTRICAL CONTACTS PRODUCED BY THE ELECTROSPARK ALLOYING METHOD<br>*Institute of Applied Physics, MSU* | |
| MEST P7 | **V. Mihailov, S. Ivascu, N. Kazak, A. Ianachevici**<br>INTENSIFICATION OF PHASE-STRUCTURAL TRANSFORMATIONS IN THE SURFACE LAYERS OF METALS UNDER THE COMBINED ACTION OF ELECTRIC-SPARK ALLOYING, PLASTIC DEFORMATION AND PLASMA-CHEMICAL TREATMENT<br>*Institute of Applied Physics, MSU* | |
| MEST P8 | **S. Ivașcu, V. Mihailov, D. Croitoru, Sp. Iațco, A. Ianachevici**<br>MODIFICATION OF METAL SURFACES THROUGH THE DEVELOPMENT OF ELECTRIC SPARK ALLOYING TECHNOLOGIES USING POWDERS<br>*Moldova State University* | |

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| MEST P9 | **M. V. Lungu, V. Mihailov, S. Ivaşcu, D. Pătroi, V. E. Marinescu, D. Tălpeanu, I. Ion, E. M. Lungulescu, A. R. Caramitu, E. Manta**<br>MICROSTRUCTURE AND TRIBOMECHANICAL PROPERTIES OF ELECTROSPARK-DEPOSITED SILVER-BASED COATINGS ON COPPER SUBSTRATES<br>*ICPE-CA Bucharest, Romania* | |
| MEST P10 | **V. A. Sharagov, G. I. Curicheru**<br>PHYSICO-CHEMICAL PROPERTIES OF INDUSTRIAL GLASSWARE FROM THE POSITION OF SYSTEM ANALYSIS<br>*Alecu Russo Balti State University* | |
| MEST P11 | **V. A. Sharagov, G. I. Curicheru, I. N. Olaru**<br>IMPROVING PHYSICO-CHEMICAL PROPERTIES OF ANNEALED HOLLOW INDUSTRIAL GLASSWARE<br>*Alecu Russo Balti State University* | |
| MEST P12 | **T. D. Kubritskaya, G. K. Balan, T. D. Shemyakova**<br>ULTRASONICALLY ASSISTED EXTRACTION (UAE) OF BIOLOGICALLY ACTIVE SUBSTANCES FROM SPIRULINA<br>*Institute of Applied Physics, MSU* | |
| MEST P13 | **K. D. Pershina, M. I. Gorobets, T. V. Trifonova**<br>IMPACT OF ANION ASYMMETRY MIXED SODIUM SALTS ELECTROLYTES ON ELECTRICAL CONDUCTIVITY<br>*V. I. Vernadsky Institute of General and Inorganic Chemistry, Ukraine* | |
| MEST P14 | **T. Isac-Gutsul, D. L. Nika**<br>KINETICS OF TETRACYCLINE HYDROCHLORIDE DEGRADATION IN UV/$S_2O_8^{2-}$ AQUEOUS SYSTEM<br>*Moldova State University* | |
| MEST P15 | **T. Ya. Datsko, V. I. Zelentsov, D. P. Dvornikov**<br>VISIBLE-LIGHT ACTIVE PHOTOCATALYST. EFFECT OF ELECTROCHEMICAL SYNTHESIS CONDITIONS ON THE PROPERTIES<br>*Institute of Applied Physics, MSU* | |
| MEST P16 | **V. Zelentsov, T. Datsko, O. Bolotin**<br>CALCULATION OF THERMODYNAMIC FUNCTIONS OF METHYLENE BLUE SORPTION ON DIATOMITE<br>*Institute of Applied Physics, MSU* | |
| MEST P17 | **I. Ceban, R. Nastas, N. Timbaliuc, I. Nesterovschi, M. Stefan, A. Varadi, D. Toloman, A. Popa**<br>SYNTHESIS AND PHYSICO-CHEMICAL CHARACTERIZATION OF $TiO_2$ – MODIFIED ACTIVATED CARBONS FOR PHOTOCATALYTIC AND ADSORPTION APPLICATIONS<br>*Institute of Chemistry, MSU* | |

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| MEST P18 | **I. Ceban, C. Vicol, E. Moraru, M. Buga, M. Rusu, V. Ceban, S. Moldovanu, M. Mihet**<br>DEVELOPMENT OF CITRIC ACID-MODIFIED ACTIVATED CARBONS FROM WALNUT SHELL BIOMASS: STRUCTURAL, CHEMICAL AND SURFACE CHARACTERIZATION<br>*Institute of Chemistry, MSU* | |
| MEST P19 | **I. Ceban, R. Nastas, T. Lupascu**<br>REMOVAL OF Fe(II) IONS ON CARBONACEOUS CATALYSTS AT DIFFERENT pH CONDITIONS<br>*Institute of Chemistry, MSU* | |
| MEST P20 | **C. Milos, D. Craciun, R. Udrea, P. Garoi, S. A. Irimiciuc, G. Dorcioman, G. Bleotu, F. Al-abedj, P. Pandele, R. Radoi, E. Matache, S. Das, D. Sandu, D. Cracana, T. Jitsuno, A. Tanaseanu, D. Ursescu, V. Craciun**<br>IN-SITU REAL TIME MEASUREMENT OF LASER INDUCED DAMAGE THRESHOLD OF METALLIC THIN FILMS USED FOR NS AND FS LASER MIRRORS<br>*National Institute for Laser, Plasma and Radiation Physics, Romania* | |
| MEST P21 | **C. Creciunel, A. Tiron, V. Ciobanu, A. Mamoico, T. Galatonova, E. Rusu, I. Tiginyanu**<br>INCORPORATION OF $SnS_2$ IN NANOFIBERS FOR PHOTOCATALYTIC APPLICATIONS<br>*Technical University of Moldova* | |
| MEST P22 | **E. I. Tutovan, T. V. Isac-Gutul**<br>COMPARISION OF UV, UV/$H_2O_2$ AND UV/$S_2O_8^{2-}$ PROCESSES FOR THE DEGRADATION OF ROSUVASTATIN IN AQUEOUS SOLUTION<br>*Department of Chemistry, MSU* | |
| MEST P23 | **S. Kh. Ivashku, Zh. I. Bobanova, S. P. Yuschenko, S. M. Iatco**<br>ELECTRODEPOSITION OF IRON ALLOYS FROM CITRATE AND GLUCONATE ELECTROLYTES<br>*Institute of Applied Physics, MSU* | |

## FRIDAY, 4TH SEPTEMBER 2026

**Hall "Regina Maria"**

**Plenary Session & Closing Ceremony**

SCAN FOR THE ABSTRACT

Chairs **L. Kulyuk, S. Vatavu**

10:00 **V. M. Fomin**
QUANTUM INTERFERENCE IN QUANTUM RINGS
*Leibniz Institute for Solid State and Materials Research, Germany · Moldova State University*

10:30 **G. Y. Soracá-Pérez, J. Garí-Galíndez, R. -F. Rubio, E. Niemi, M. Israr-Qadir, A. Pérez-Rodríguez, P. Vidal-Fuentes, V. Izquierdo-Roca, M. Guc**
DEVELOPING AI-DRIVEN TOOLS FOR ACCELERATED RESEARCH AND INDUSTRIAL PROCESSES MONITORING
*Catalonia Institute for Energy Research (IREC), Spain*

11:00 – 11:30 COFFEE BREAK

11:30 **A. S. Sidorenko**
FUNCTIONAL NANOSTRUCTURES AND NANOMATERIALS FOR NEUROMORPHIC COMPUTING
*Technical University of Moldova*

12:00 **M. A. Macovei, T. Mihaescu, A. Isar**
SINGLE - AND TWO - QUANTA PROCESSES IN COUPLED HYBRID SYSTEMS
*Institute of Applied Physics, Moldova State University*

12:30 **L. Kulyuk, S. Vatavu**
CLOSING CEREMONY