



**10TH INTERNATIONAL CONFERENCE
ON MATERIALS SCIENCE AND CONDENSED MATTER PHYSICS**

CHIȘINĂU | 1-4 OCTOBER 2024

Scientific Programme



ORGANIZED BY

Institute of Applied Physics
Faculty of Physics and Engineering 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
COSTAction CA21144 SuperQuMap
"Superconducting Nanodevices and Quantum Materials for Coherent Manipulation"
Labromed Laborator SRL

CONFERENCE PROGRAMME / OUTLINE OF THE WEEK

	Monday, 30 th September	Tuesday, 1 st October	Wednesday, 2 nd October	Thursday, 3 rd October	Friday, 4 th October
09:00	Arrival and Registration Hall RM	Plenary Session, Hall RM	Plenary Session, Hall RM	Plenary Session, Hall RM	Plenary Session, Hall RM
10:00					
11:00		W.Knap <i>Poland</i>	Y. Anahory <i>Israel</i>	P. Miranović <i>Montenegro</i>	S.A. Irimiciuc <i>Romania, Czech Republic</i>
12:00		S. Schorr <i>Germany</i>	A. Gencer <i>Türkiye</i>	E. Saucedo <i>Spain</i>	Coffee Break
13:00		V. Craciun <i>Romania</i>	A. Vaseashta <i>USA</i>	A.V. Silhanek <i>Belgium</i>	P. Hruška <i>Czech Republic</i>
14:00		Coffee Break	Coffee Break	Coffee Break	Coffee Break
15:00	NATO SPS Project G6153 Workshop Meeting	M. Rusu <i>Germany</i>	D.M. Evans <i>United Kingdom</i>	O. Dobrovolskiy <i>Germany</i>	Closing Ceremony
16:00		J. Sourd <i>Germany</i>	R. Schäfer <i>Germany</i>	J. Van de Vondel <i>Belgium</i>	
17:00		D. Makarov <i>Germany</i>	P. Vidal-Fuentes <i>Spain</i>	H. Ceslulis <i>Lithuania</i>	
18:00		CMT-A Hall RM	CMT-B Hall RM	EMDC Hall RM	
19:00	Welcome Party Building 4	GPAM Hall 2	SSNN Hall 2	MEST Hall 2	
		DSCM Hall 3	SuperQuMap Hall 3	SuperQuMap Hall 3	
		Coffee Break	Coffee Break	Coffee Break	
		Poster Session A GPAM DSCM	Poster Session B CMT SSNN SuperQuMap	Poster Session C MEST EMDC	
		Excursions in Small Groups Wine Tasting, Cricova, Milestii Mici	Concert	Conference Dinner	

TOPICAL SESSIONS

- CMT-A,B - Condensed Matter Theory
- GPAM - Growth and Properties of Advanced Materials
- DSCM - Design and structural characterization of Materials
- SSNN - Solid State Nanophysics and Nanotechnology
- EMDC - Electromagnetic radiation detection and conversion
- MEST - Materials engineering for Innovative and Sustainable Technologies
- SuperQuMap - COSTAction CA21144 Workshop "Emerging Quantum Materials based on Superconducting Nanostructures"

HALLS

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

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.

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

POSTER PRESENTATIONS

The poster sessions will be held on 1st October (Poster Session A), 2nd October (Poster Session B) and 3rd October (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 MSCMP2024.

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.



TUESDAY, 1ST OCTOBER 2024

Hall "Regina Maria" – 137/C	
Opening Ceremony and Plenary Session	
Chairs	L. Kulyuk, S. Vatavu (9:00 – 11:00) V. Tsurkan, W. Knap (11:30 – 13:00)
9:00	L. Kulyuk, S. Vatavu WELCOME TO MSCMP2024
9:30	P. Sai, M. Dub, V. Korotyeyev, G. Cywiński, <u>W.Knap</u> NITRIDES VERSUS GRAPHENE FOR TERAHERTZ PLASMONIC OPTOELECTRONICS <i>Poland, Ukraine</i>
10:00	S. Schorr EARTH-ABUNDANT COMPOUND SEMICONDUCTORS FOR SOLAR ENERGY CONVERSION <i>Germany</i>
10:30	<u>V. Craciun</u> , D. Craciun, S.A. Irimiciuc, G. Dorcioman, P. Garoi, A. Trefilov, R. Udrea, V. Grumezescu, D. Ursescu, G. Bleotu, A. Magureanu, C. Ticos, V. Geanta, I. Voiculescu, J.C. Marza-Rosca PULSED LASER DEPOSITION OF THIN FILMS FOR ADVANCED APPLICATIONS <i>Romania, Spain</i>
11:00 – 11:30	COFFEE BREAK
11:30	<u>M. Rusu</u> , T. Unold, S. Schorr ELECTRONIC STRUCTURE OF SURFACES AND INTERFACES BY KELVIN PROBE AND PHOTOELECTRON YIELD SPECTROSCOPY AT AMBIENT PRESSURE <i>Germany</i>
12:00	<u>J. Sourd</u> , Y. Skourski, L. Prodan, V. Tsurkan, T. Kotte, P. Wild, S. Mühlbauer, A. Miyata, J. Wosnitza, S. Zherlitsyn ULTRASONIC STUDIES OF QUANTUM MAGNETS WITH COMPETING INTERACTIONS <i>Germany, Moldova, Japan</i>
12:30	D. Makarov CURVILINEAR MAGNETISM: FUNDAMENTALS AND APPLICATIONS <i>Germany</i>
13:00 – 14:00	LUNCH BREAK

Hall "Regina Maria" – 137/C

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

Chairs **M. Macovei, S. Klokishner**

14:00 **S.N. Klimin, J. Tempere**

Keynote COLLECTIVE AND NONLINEAR EXCITATIONS OF SUPERFLUID FERMI GASES

Belgium

14:25 **T. Mihaescu, A. Isar**

Keynote ENTROPY PRODUCTION AND QUANTUM CORRELATIONS OF TWO COUPLED BOSONIC MODES IN A THERMAL ENVIRONMENT

Romania

14:50 **S. Cojocaru**

A PARAMETRIC ANOMALY ASSOCIATED WITH NEGATIVE REFRACTION OF ACOUSTIC WAVES IN THIN PLATES

Romania

15:05 **A.A. Barsuk, F. Paladi**

ON THE EQUILIBRIUM STATES OF MULTIPARAMETRIC THERMODYNAMIC SYSTEMS IN A SMALL VICINITY OF THE EQUILIBRIUM VALUES OF PARAMETERS

Moldova

15:20 **S.M. Ostrovsky, O.S. Reu, S.I. Klokishner**

EFFECTS OF LIGAND DEPROTONATION ON THE SPIN CROSSOVER IN Fe(II) COMPLEXES

Moldova

15:35 **A.I. Cocemasov, V.I. Brinzari, D.L. Nika**

THERMAL TRANSPORT SUPPRESSION IN INDIUM OXIDE BY RATTILING ATOMS

Moldova

15:50 **A. Varzari, A.A. Cliucanov, S. Vatavu**

MOTT TRANSITION OF EXCITONS TO ELECTRON-HOLE PLASMA STATE IN CdTe

Moldova

16:05 **V. Ceban, M.A. Macovei**

LONG-LIVED PHONONS IN HYBRID OPTOMECHANICAL DEVICES

Moldova

COFFEE BREAK

Hall 2 – 141/C	
Oral Session – Growth and Properties of Advanced Materials (GPAM)	
Chairs	V. Tsurkan, A. Nateprov
14:00	A. Babinski Keynote EXCITONIC LUMINESCENCE OF IODINE-INTERCALATED HAFNIUM DISULPHIDE <i>Poland</i>
14:25	M. Stef, C. Schornig, M. Poienar, G. Buse, D. Vizman, P. Veber STUDY OF Tm ³⁺ AND Tm ²⁺ LUMINESCENCE IN TmF ₃ -DOPED CaF ₂ CRYSTALS <i>Romania</i>
14:40	D. Miliãieva, V. Nadazdy, M. Koltsov, C. López, C. Cazorla, M. Krunks, I. O. Acik, N. Spalatu DEFECT STATES IN BI- AND SB- CHALCOGENIDES REVEALED BY COMBINATION OF EXPERIMENTAL TECHNIQUES AND DFT MODELLING <i>Estonia, Slovak Republic, Spain</i>
14:55	Y. Skourski PHASE DIAGRAM OF CUO MULTIFERROIC INVESTIGATED USING PULSED MAGNETIC FIELDS <i>Germany</i>
15:10	G. Gurieva, S. Niedenzu, A. Manjon Sanz, M. Kirkham, S. Schorr CRYSTAL STRUCTURE OF Cu ₂ Zn(Ge _x Si _{1-x})Se ₄ SOLID SOLUTION: THE KESTERITE TO WURZ-KESTERITE STRUCTURAL PHASE TRANSITION <i>Germany, USA</i>
15:25	L. Prodan, A. Chmeruk, I.G. Filippova, L. Chioncel, V. Tsurkan ANISOTROPIC MAGNETIC AND TRANSPORT PROPERTIES IN KAGOME MAGNETS <i>Germany, Moldova, Romania</i>
15:40	Y. Tomm, G. Gurieva, S. Schorr STRUCTURE – PROPERTY RELATIONS OF QUATERNARY ADAMANTINES <i>Germany</i>
15:55	V. Verlan, I. Culeac, V. Ghenea, I. Bulhac, I. Cojocaru, M. Enachescu HIGH QUANTUM YIELD POLYMER COMPOSITE NANOMATERIAL [Eu(μ ₂ -OC ₂ H ₅)(btfa)(NO ₃)(phen)] ₂ ·phen/PEPC <i>Moldova, Romania</i>
16:10	I. Lungu, T. Potlog, V. Suman, D. Untila, I. Gadiac PHYSICAL PROPERTIES OF CdS/ZnTe HETEROSTRUCTURES <i>Moldova</i>
COFFEE BREAK	

Hall 3 – 145/C

Oral Session – Design and structural characterization of Materials (DSCM)

Chairs **V.Ch. Kravtsov, S. Baca**

14:00 **O. Shikimaka, M. Bivol, D. Grabco, D. Topal, C. Pyrtsac, A. Prisacaru, V. Cobzac, V. Nacu, B.A. Sava, M. Dumitru, C. Tardei, B.G. Sbarcea**
 Keynote
 SYNTHESIS–STRUCTURE–PROPERTIES CORRELATION OF HYDROXYAPATITE BASED BIOCOMPOSITES

Moldova, Romania

14:25 **V. Abaskin, E. Achimova, S. Moldovanu, C. Losmanschii**
 NON MASK E-BEAM LITHOGRAPHY OF TESCAN VEGA FOR DIRECT RECORDING OF DIFFRACTION OPTICAL ELEMENTS: PART 1 – LINES RECORDING

Moldova

14:40 **V. Abaskin, E. Achimova, A. Prisacar, A. Meshalkin, M.F. Toy**
 ESTIMATION OF TWO MODALITIES OF DHM FOR QUANTITATIVE MEASUREMENTS OF MICROSPHERES AS SIZE STANDARDS

Moldova, Turkiye

14:55 **R. Rzayev, N. Sucman, B.A. Mammadov, E. İbadov, F. Macaev**
 SYNTHESIS AND CHARACTERIZATION OF NEW POLYFUNCTIONAL CONDUCTIVE NANO-SIZED OLIGO AND CO-OLIGOMERS OF 2-METHYL ANILINE AND RESORCINOL

Moldova, Azerbaijan

15:10 **D. Podgornii**
 DESIGN AND STRUCTURAL CHARACTERIZATION OF MULTINUCLEAR Fe-Ln CLUSTERS BASED ON PIVALATE AND POLYALCOHOL LIGANDS

Moldova

15:25 **C. Losmanschii, E. Achimova, V. Abaskin, A. Meshalchin**
 THE KINETICS OF POLARIMETRY OF DIFFRACTION EFFICIENCY OF GRATING RECORDED ON AZOPOLIMERIC NANOCOMPOSITE PEPC-SY3:AUNP

Moldova

15:40 **I. Geru, N. Gaiu, T. Jovmir, V. Lozan**
 EPR STUDIES OF ANTIFERROMAGNETIC EXCHANGE INTERACTION IN A BINUCLEAR COPPER(II) COMPOUND WITH ISOTHIOSMICARBAZONE

Moldova

COFFEE BREAK

Poster Session A:
Growth and Properties of Advanced Materials (GPAM)
Design and structural characterization of Materials (DSCM)

 Chairs **N. Nedeoglo, O. Reu**

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- GPAM P1 **V. Batîr, E. Hajdeu-Chicarosh, I. A. Viktorov, E. Lähderanta, K. G. Lisunov, E. Arushanov**
 HOPPING CONDUCTIVITY IN $\text{Cu}_2\text{Zn}_{1-x}\text{Cd}_x\text{SnS}_4$
Moldova, Finland, Belarus
-
- GPAM P2 **A. Nateprov, L. Konopko, V. Fritsch**
 DE HAAS VAN ALPHEN EFFECT IN THREE-DIMENSIONAL DIRAC SEMIMETAL Cd_3As_2 DOPED BY Fe
Moldova, Germany
-
- GPAM P3 **G. V. Colibaba, D. Rusnac, N. Spalatu**
 CVT SINTERING OF HIGHLY CONDUCTIVE $\text{ZnS}_x\text{O}_{1-x}$ ALLOYS
Moldova, Estonia
-
- GPAM P4 **S. Sergeev, A. Meshalkin, E. Kanarovskii, I. Cojocar**
 THE EFFECT OF LINE BROADENING ON THE PROPERTIES OF REFRACTIVE INDEX GRATINGS PRODUCED BY E-BEAM RECORDING
Moldova
-
- GPAM P5 **D. Rusnac, M.A. Koltsov, N. Spalatu, G.V. Colibaba**
 EFFECT OF STOICHIOMETRIC DEVIATION ON PROPERTIES OF $\text{ZnO}:\text{Ga}:\text{Cl}$ THIN FILMS
Moldova, Estonia
-
- GPAM P6 **K. Sushkevich, N. Siminel, N. Nedeoglo, A. Siminel, T. Iurieva, D. Nedeoglo**
 EDGE PHOTOLUMINESCENCE OF CdSe SINGLE CRYSTALS IN THE TEMPERATURE RANGE BETWEEN 15 AND 200 K
Moldova
-
- GPAM P7 **L. Prodan, D. Croitori, I. Filippova, M. Roman, S. Shova, V. Tsurkan**
 Zn-SUBSTITUTION EFFECT IN MULTIFERROIC $\text{Fe}_2\text{Mo}_3\text{O}_8$
Germany, Moldova, Romania
-
- GPAM P8 **O. Iaseniuc, A. Prisacar**
 OPTICAL INVESTIGATION OF THE As-S-Se:Sn THIN FILMS
Moldova
-
- GPAM P9 **D. Rusnac, P. Bulimaga, E. V. Monaico, N. Spalatu, G. V. Colibaba**
 LOW-TEMPERATURE CVT SINTERING OF $\text{In}_2\text{O}_3:\text{Sn}$ CERAMICS
Moldova, Estonia
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- GPAM P10 **V. Batîr, S. Aazou, L. Dermenji, N. Curmei, Z. Sekkat, E. Arushanov, M. Guc**
 RAMAN ANALYSIS OF $\text{Cu}_2\text{Zn}_{1-x}\text{Cd}_x\text{GeS}_4$ AND $\text{Cu}_2\text{CdSn}_{1-x}\text{Ge}_x\text{S}_4$ SOLID SOLUTIONS
Moldova, Morocco, Spain
-
- GPAM P11 **L.V. Dermenji, N.N. Curmei, L.I. Bruk, M. Franckevičius, V. Pakštas**
 THE INFLUENCE OF THE SYNTHESIS ATMOSPHERE ON THE QUALITY OF THIN LAYERS OF $(\text{Ag}_x\text{Cu}_{1-x})_2\text{ZnSnS}_4$
Moldova, Lithuania
-
- GPAM P12 **G.V. Colibaba, D. Rusnac, V. Fedorov, V. Suman, D. Topal, E. V. Monaico, N. Spalatu, A. Sidorenko, O. Shikimaka**
 CVT SINTERING OF CONDUCTIVE $\text{Fe}_2\text{O}_3 \cdot (\text{ZnO})_k$ ALLOYS
Moldova, Estonia
-
- GPAM P13 **C. Schörnig, M. Ștef, P Veber, D. Vizman, M. Poienar, G. Bușe**
 THE STUDY OF DISTRIBUTION OF THULIUM IONS IN $\text{CaF}_2:\text{TmF}_3$ CRYSTALS
Romania
-
- DSCM P1 **L.-E. Barabás, C. Paizs, M. Toșa**
 HUMAN CARBONIC ANHYDRASE II – A NEW TOOL FOR THE SYNTHESIS OF VALUABLE ORGANIC MATERIALS
Romania
-
- DSCM P2 **E. Beleaeu, V. Ch. Kravtsov, S.G. Baca**
 HETEROMETALLIC TETRANUCLEAR $\{\text{Co(III)}_2\text{Ln(III)}_2\}$ COORDINATION COMPLEXES BASED ON PIVALATE AND *N*-BUTYLDIETHANOLAMINE LIGANDS
Moldova
-
- DSCM P3 **E. Beleaeu, V. Ch. Kravtsov, S.G. Baca**
 DINUCLEAR Co(II) COMPLEX WITH PIVALATE AND ISONICOTINAMIDE LIGANDS: SYNTHESIS, CRYSTAL STRUCTURE AND HIRSHFELD SURFACE ANALYSIS
Moldova
-
- DSCM P4 **E. Beleaeu, Y.M. Chumakov, S.G. Baca**
 THEORETICAL STUDY OF BINDING ENERGIES IN COMPOUNDS CONTAINING HEXAAMMINECOBALT(III) CATIONS AND AROMATIC SULFONIC ACID DERIVATIVES
Moldova
-
- DSCM P5 **O. Capbătut, V. Ch. Kravtsov, S.G. Baca**
 SUPRAMOLECULAR ISOMERISM IN Cu(II) PYRAZINECARBOXYLATE COORDINATION COMPOUNDS
Moldova
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- DSCM P6 **N. Gh. Ciobanu, F.Z. Macaev**
SYNTHESIS OF 4-(3-HYDROXYPHENYL)-3,4-DIHYDROPYRIMIDIN-2-ONES (THIONES) VIA B-CYCLODEXTRIN AND LOW-ESTERIFIED PECTIN CATALYZED APPROACH
Moldova
-
- DSCM P7 **N. Craciun, D. Chisca, E. Melnic, M.S. Fonari**
SYNTHESIS AND CRYSTAL STRUCTURE OF *bis[tris(1,10-phenanthroline)-cadmium(ii)] tetrakis(perchlorate) 4,4'-(ethane-1,2-diyl)dianiline acetonitrile solvate*
Moldova
-
- DSCM P8 **O. Cuzan, V. Gorinchoy, S. Shova, V. Lozan**
SYNTHESIS AND CHARACTERISATION OF A NOVEL Cu(II) SEBACATE
Moldova, Romania
-
- DSCM P9 **O. Danilescu, I. Bulhac, O. Kulikova, Yu. Chumakov, M. Cocu, P. Bourosh**
SYNTHESIS, STRUCTURES AND PROPERTIES OF Fe(III) COMPLEXES WITH DIHYDRAZONE LIGAND
Moldova
-
- DSCM P10 **E. Gal, B. Brem, L.I. Gaina**
PHARMACEUTICAL AND NON-LINEAR OPTICAL PROPERTIES OF NEW PHENOTHIAZINYL PORPHYRINS
Romania
-
- DSCM P11 **V.O. Gelmboldt, I.O. Shyshkin, I.V. Lytvynchuk, L.M. Khromagina, M.S. Fonari, V. Ch. Kravtsov**
AMMONIUM HEXAFLUOROSILICATES AS POTENTIAL ANTI-CARIES AGENTS: SYNTHESIS, STRUCTURES, SOLUBILITY, BIOLOGICAL ACTIVITY
Ukraine, Moldova
-
- DSCM P12 **V. Ghenea, I. Culeac, A. Buzdugan**
Eu³⁺ AS A LUMINESCENT PROBE FOR LOCAL SITE SYMMETRY IN Eu(III) COORDINATION COMPOUNDS
Moldova
-
- DSCM P13 **E. Gorincioi, V. Pogrebnoi, D. Iunac, G. Balan, A. Rotaru, N. Sucman, F. Macaev**
ANTIMICROBIAL, ANTIPROLIFERATIVE AND DNA-INTERACTING PROPERTIES OF 6-(2,4-DICHLOROBENZOYL)-7-(2,4-DICHLOROPHENYL)INDOLO[3,4-*jk*]PHENANTHRIDIN-5(4*H*)-ONE
Moldova, Romania
-
- DSCM P14 **E. Gorincioi, E. Stîngaci, P. Sket, J. Plavec, F. Macaev**
NMR STUDIES OF THE DUPLEX DNA-LIGAND INTERACTIONS BY USING ANTICANCER ACTIVE PRIMARY AMINE IONIC LIQUIDS
Moldova, Slovenia
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- DSCM P15 **E. Gorincioi, T. Ștefăneț, E. Stîngaci, V. Valica, F. Macaev**
 FULL ¹H, ¹³C and ¹⁵N NMR CHARACTERISATION OF DIOXOINDOLINONE
 ENDOWED WITH ANTIDEPRESSANT PROPERTIES
Moldova
-
- DSCM P16 **V.V. Gorinchoy, G. Roman, S.G. Shova, V.I. Lozan**
 TWO-DIMENSIONAL Cd(II) COORDINATION POLYMER DERIVED FROM A 1,2,3-
 TRIAZOLE-BASED TRICARBOXYLATE LIGAND
Moldova, Romania
-
- DSCM P17 **V.V. Gorinchoy, O.I. Cuzan, S.G. Shova, V.I. Lozan**
 SYNTHESIS, CRYSTAL STRUCTURE AND SPECTROSCOPIC PROPERTIES OF
 HETERO COORDINATION POLYMER {[CuBa₂(5-MeSal)₂(5-MeSalH)₂(DMA)₄]}_n
 DERIVED FROM A 5-METHYLSALICYLIC ACID
Moldova, Romania
-
- DSCM P18 **A. Gorobet, M.E. Crisan, P.N. Bourosh, O.V. Kulikova, L. Croitor**
 INDIVIDUAL K(I) COORDINATION POLYMERS WITH DIFFERENTLY SUBSTITUTED
 CHLORONITROBENZOATES
Moldova
-
- DSCM P19 **A. Gorobet, O. Danilescu, E. Melnic, Y.M. Chumakov, O.V. Kulikova,
 V.Ch. Kravtsov, L. Croitor**
 INFLUENCE OF STRUCTURAL POLYMORPHISM ON LUMINESCENT PROPERTIES
Moldova
-
- DSCM P20 **H. Alsheikh, D.Z. Grabco, O.A. Shikimaka**
 TEMPERATURE FIELD CHANGE ASSESSMENT IN ZIRCONIUM ALLOY Zr1.0%Nb
 DURING ECAP PROCESS USING FINITE ELEMENT MODELING
Moldova
-
- DSCM P21 **E.I. Melnic, P.N. Bourosh, I.I. Graur, V.O. Graur, O.S. Garbuz, V.I. Tsapkov,
 A.P. Gulea**
 CRYSTAL STRUCTURES OF *N*-(4-METHOXYPHENYL)-2-[2-(PROP-2-EN-1-
 YLCARBAMOTHIOYL)HYDRAZINYLDENE]PROPANAMIDE AND ITS COPPER(II)
 COMPLEX
Moldova
-
- DSCM P22 **P.N. Bourosh, V.O. Graur, I.S. Usataia, C.S. Lozan-Tirsu, A.P. Gulea**
 CRYSTAL STRUCTURE OF COPPER(II) COORDINATION COMPOUND WITH
N-(PROP-2-EN-1-YL)-2-(PYRIDIN-2-YLMETHYL)HYDRAZINECARBOTHIOAMIDE
Moldova
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- DSCM P23 **E.I. Melnic, V. Ch. Kravtsov, V.O. Graur, I.I. Dvorschi, I.I. Graur, I. S. Usataia, G.G. Balan, A.P. Gulea**
STRUCTURES OF *N*-(BICYCLO[2.2.1]HEPT-2-YL)-2-[PHENYL(PYRIDIN-2-YL)METHYLIDENE]HYDRAZINECARBOTHIOAMIDE AND ITS COPPER(II) COORDINATION COMPOUND
Moldova
-
- DSCM P24 **O. Kulikova, O. Danilescu, P. Bourosh, I. Bulhac, Y. Chumakov, M. Cocu**
ABSORPTION OF THE MONONUCLEAR Fe(III) COORDINATION COMPOUNDS
Moldova
-
- DSCM P25 **S. Melnic, V. Druta, S. Shova, V. Lozan**
SYNTHESIS AND STUDY OF NEW Cd(II) AND Zn(II) METAL-ORGANIC FRAMEWORKS
Moldova, Romania
-
- DSCM P26 **E. Neguta, G. Roman, S. Shova, V. Lozan**
POLYMERIC COMPOUND Cd(II) WITH 5-(4-CARBOXYPHENYL)-1-PHENYL-1H-PYRAZOLE-3-CARBOXYLIC ACID
Moldova, Romania
-
- DSCM P27 **E. Neguta, G. Roman, S. Shova, V. Lozan**
3D COORDINATION POLYMER OF Eu(III) AND 5-(4-CARBOXYPHENYL)-1-PHENYL-1H-PYRAZOLE-3-CARBOXYLIC ACID
Moldova, Romania
-
- DSCM P28 **M. Pap, M.- E. László, C. Paizs, G. Katona**
IMMOBILIZATION OF LIPASE B FROM *CANDIDA ANTARCTICA* ON VARIOUS SUPPORTS. ACTIVITY AND SELECTIVITY TESTING IN CONTINUOUS FLOW MICROFLUIDIC SYSTEM.
Romania
-
- DSCM P29 **D. Podgornii, F.M. Amombo Noa, L. Öhrström, S.G. Baca**
SYNTHESIS AND CHARACTERIZATION OF DINUCLEAR Gd(III) COMPLEX BASED ON *N*-(PYRIDIN-2-YLMETHYLENE)PICOLINHYDRAZONE
Moldova, Sweden
-
- DSCM P30 **D. Podgornii, V. Ch. Kravtsov, S.G. Baca**
CRYSTALLOGRAPHIC CHARACTERIZATION OF TETRANUCLEAR {Fe₂M₂} (M = Y, Ln) CLUSTERS
Moldova
-
- DSCM P31 **R. Rusnac, A. Gulea**
SYNTHESIS OF NEW THIOSEMICARBAZONES CONTAINING "PARACETAMOL" FRAGMENT
Moldova
-

-
- DSCM P32 **R. Rusnac, I. Bulimestru, A. Ciursin, L.I. Gaina**
 DESIGN AND SYNTHESIS OF N-CYCLOHEXYL-2-(9H-FLUOREN-9-YLIDENE)HYDRAZINE-1-CARBOTHIOAMIDE
Moldova, Romania
-
- DSCM P33 **D.D. Stati, J. van Leusen, V. Ch. Kravtsov, Y. Chumakov, P. Kögerler, S.G. Baca**
 PENTANUCLEAR $\{Co^{III}_3Ln^{III}_2\}$ (Ln = Pr, Nd, Sm) ISOBUTYRATE CLUSTERS WITH N-BUTYLDIETHANOLAMINE
Moldova, Germany
-
- DSCM P34 **E.P. Stingaci, O. Petuhov, N.S.Sucman, T. Ștefanetu, V. Valica, F.Z.Macaev**
 THERMOGRAVIMETRIC ANALYSIS OF ISATIN β -ETHYLENEKETALS: IMPLICATIONS FOR PSYCHOTROPIC DRUG DEVELOPMENT
Moldova, Romania
-
- DSCM P35 **D. Ureche, P. Bourosh, I. Bulhac**
 DIANYLINEGLYOXIME AND ISOPHTHALIC DIANION IN THE SYNTHESIS OF BINUCLEAR COMPLEXES WITH OCTAHEDRAL GEOMETRY
Moldova
-
- DSCM P36 **D. Ureche, I. Bulhac, P. Bourosh**
 Ni(II) TRIS-DIOXIMATE CONTAINING A NOVEL *BIS-p*-TOLUIDINEGLYOXIME LIGAND
Moldova
-
- DSCM P37 **V. Lozovan, V.Ch. Kravtsov, E. Cariati, M.S. Fonari**
 STACKING PATTERNS IN CRYSTALS OF CYCLIC TRIIMIDAZOLES REGULATED BY THE NUMBER OF NITRILE GROUPS
Moldova, Romania, Italy
-
- DSCM P38 **I. Voda, V. Druta, S. Shova, V. Lozan**
 SYNTHESIS AND STRUCTURE OF TWO NEW COORDINATION POLYMERS BASED ON 3,4-PYRIDINEDICARBOXYLATE AND 4,4'-BIS((1H-IMIDAZOL-1-YL)METHYL-1,1'-BIPHENYL
Moldova, Romania
-
- DSCM P39 **I. Voda, S. Shova, V. Lozan**
 SYNTHESIS AND STRUCTURE OF A NEW COORDINATION POLYMER CONTAINING 2,4-PYRIDINEDICARBOXYLATE AND IMIDAZOLE-BASED SPACER
Moldova, Romania
-
- DSCM P40 **I.R. Tigoianu, A. Airinei, C. Gherasim, I. Lungu, V. Suman, T. Potlog**
 PHOTOPHYSICAL PROPERTIES OF SOME PHTHALOCYANINE DERIVATIVES
Romania, Moldova
-

WEDNESDAY, 2ND OCTOBER 2024

Hall "Regina Maria" - 137/C	
Plenary Session	
Chairs	V.M. Fomin (9:00 – 11:00) V. Geshkenbein (11:30 – 13:00)
9:00	A. Bianconi COMPETITION OF KONDO SCATTERING AND FANO-FESHBACH RESONANT PAIRING IN ARTIFICIAL HIGH-TC SUPERLATTICES MADE BY QUANTUM DESIGN <i>Italy</i>
9:30	Y. Anahory, A. Gutfreund, H. Matsuki, V. Plastovets, A. Noah, L. Gorzawski, N. Fridman, G. Yang, A. Buzdin, O. Millo, J.W.A. Robinson DIRECT OBSERVATION OF A SUPERCONDUCTING VORTEX DIODE <i>Israel, UK, France</i>
10:00	A. Gencer, C. Guo, S. Safran, D. Wang, H. Koralay, E. Coskun, Y. Ozal, A. Seçkin, K. Sönmez, Y. Ma RECENT ADVANCES IN HIGH PERFORMANCE MgB ₂ WIRES FOR PRACTICAL APPLICATIONS <i>Türkiye, China</i>
10:30	A. Vaseashta ON THE MATERIAL CONSIDERATIONS FOR ENERGY HARVESTING IN IOTS <i>USA</i>
11:00 – 11:30	COFFEE BREAK
11:30	D.M. Evans SPATIALLY RESOLVED CONDUCTIVITY IN TYPE-II SUPERCONDUCTORS <i>UK</i>
12:00	R. Schäfer MAGNETIC DOMAIN TOMOGRAPHY <i>Germany</i>
12:30	A. Pérez-Rodríguez, P. Vidal-Fuentes, J. Andrade-Arvizu, D. Payno, R. Fonoll, M. Guc, V. Izquierdo-Roca DEFINITION OF AN UPSCALED KESTERITE (CZTSe) TECHNOLOGY PLATFORM <i>Spain</i>
13:00 – 14:00	LUNCH BREAK

Hall "Regina Maria" – 137/C
Oral Session – Condensed Matter Theory – B (CMT-B)

 Chairs **D. Nika, V. Tronciu**

 14:00 **S.I. Klokishner, O.S. Reu**

 Keynote MODELING OF PROTON TRANSFER COUPLED SPIN TRANSITION IN THE
 HL-Cl([Fe(HL-Cl)₂])(AsF₆)₂ COMPOUND

Moldova

 14:25 **T. Mihaescu, A. Isar**

 DYNAMICS OF STRONGLY COUPLED HARMONIC OSCILLATORS IN GAUSSIAN
 NOISY CHANNELS

Romania

 14:40 **N. Ciobanu, N.Gubceac, V.Tronciu**

Control Dynamics of the emitted Photons in the Biological Media

Moldova

 14:55 **S.I. Klokishner, O.S. Reu, S.M. Ostrovsky**

 CHARGE TRANSFER INDUCED SPIN TRANSITION IN THE TETRANUCLEAR CYANIDE-
 BRIDGED [Co₂Fe₂] COMPLEX

Moldova

 15:10 **A.-A. Stoica, A. Isar**

 ENVIRONMENT-ASSISTED GENERATION OF QUANTUM CORRELATIONS OPEN
 QUANTUM SYSTEMS

Romania

 15:25 **V. Dobrovolschi, S.Rusu, V.Tronciu**

 PICOSECOND PULSE GENERATION IN InGaN BLUE LASERS WITH SATURABLE
 ABSORBER

Moldova

 15:40 **M.A. Macovei**

DIPOLE-DIPOLE INTERACTING FEW-LEVEL EMITTERS IN A THERMOSTAT

Moldova

COFFEE BREAK

Hall 2 – 141/C

Oral Session – Solid State Nanophysics and Nanotechnology (SSNN)

Chairs V. Ursaki, V. Sirkeli

-
- 14:00 **S. Anghel, A.V. Poshakinskiy, D.R. Yakovlev, E. Kirstein, N.E. Kopteva, M. Bayer, M. Betz**
 EXPLORING SPIN DIFFUSION OF EXCITONS IN ORGANIC-INORGANIC LEAD HALIDE PEROVSKITES
Germany, Russia
-
- 14:15 **A.A Popescu, D. Savastru**
 HYSTERESIS LOOP IN SPR STRUCTURES CONTAINING THIN AMORPHOUS As₂S₃ FILMS
Romania
-
- 14:30 **V.V. Ursaki, V. Morari, E.V. Rusu, T. Braniste, I.M. Tiginyanu**
 ZnO AS A BASIS FOR FABRICATION OF NANOCOMPOSITE MATERIALS FOR SENSOR APPLICATIONS
Moldova
-
- 14:45 **K. Zdunek, A. Więckowska**
 Au₂₅ AND Au₂₄Pt THIOL-PROTECTED CLUSTERS AS NANOCATALYSTS FOR CONVERSION OF H₂O₂
Poland
-
- 15:00 **E. Evers, N.E. Copteva, V. Nedelea, A. Kors, R. Kaur, J.P. Reithmaier, M. Benyoucef, M. Bayer, A. Greilich**
 CARRIER SPIN COHERENCE IN INAS/INALGAAS QUANTUM DOTS EMITTING IN THE TELECOM RANGE
Germany
-
- 15:15 **V.P. Sirkeli, I.B. Boris, D.L. Nika**
 EFFECT OF AlGaN INTERLAYER ON PERFORMANCE OF InGaN-BASED RED LIGHT EMITTING DEVICES
Moldova
-
- 15:30 **N. Siminel, C. Slobodeniuc, A. Micu, A. Siminel, L. Kulyuk**
 DECAY KINETICS OF EXCITONS BOUND AT IODINE MOLECULES IN MoSe₂:I₂ LAYERED CRYSTALS
Moldova
-
- 15:45 **C.I. Isacova, A.I. Cocemasov, D.L. Nika**
 REDUCTION OF THE LATTICE THERMAL CONDUCTIVITY IN SI-BASED NANOWIRES AND NANOTUBES
Moldova
-

COFFEE BREAK

Hall 3 – 145/C

Oral Session – Emerging Quantum Materials based on Superconducting Nanostructures (SuperQuMap)

Chairs **A. V. Silhanek, V. Pokorný**

14:00 **N. Barišić**

HIGH-T_c CUPRATES – STORY OF TWO ELECTRONIC SUBSYSTEMS

Austria, Croatia

14:30 **B. Aichner, S. Keppert, M. Karrer, K. Wurster, C. Magén, C. Schmid, R. Hutt, J.D. Pedarnig, R. Kleiner, E. Goldobin, D. Koelle, W. Lang**

COMMENSURABILITY EFFECTS AND LONG-TERM STABILITY OF PINNING LANDSCAPES IN COPPER-OXIDE SUPERCONDUCTORS FABRICATED BY FOCUSED HE-ION-BEAM NANOPATTERNING

Austria, Germany, Spain

15:00 **W. Lang, B. Aichner, L. Backmeister, M. Karrer, K. Wurster, R. Kleiner, E. Goldobin, D. Koelle**

VORTEX MATTER IN COPPER-OXIDE SUPERCONDUCTORS WITH PERIODIC DEFECTS

Austria, Germany

15:30 **V. Geshkenbein**

ENHANCEMENT OF FLUX PINNING BY CREEP, - NONMONOTONIC RELAXATION OF CAMPBELL PENETRATION DEPTH

Switzerland

16:00 – 16:30

COFFEE BREAK

16:30 **A. Sidorenko**

SUPERCONDUCTING ARTIFICIAL NEURAL NETWORKS

Moldova

17:00 **J.A. Moreno et al.**

CROSSOVER FROM ISOLATED YSR STATES TO GAPLESS SUPERCONDUCTIVITY IN 2H-NBSE_{2-x}S_x AT THE ATOMIC SCALE

Spain, Denmark, Argentina

17:30 **E. Condrea**

MAGNETOTRANSPORT PROPERTIES OF BISMUTH WIRES BELOW 25 K

Moldova

17:50 **S.I. Beril, A.S. Starchuk**

HIGH-TEMPERATURE BIPOLARONIC SUPERCONDUCTIVITY IN MULTILAYER PERIODIC STRUCTURES

Moldova, Transnistria

18:10 Flash Poster Presentations (Poster Session B):

S. Šćepanović, J.D. Bermúdez-Perez, V. Boian

Poster Session B:
Condensed Matter Theory (CMT)
Solid State Nanophysics and Nanotechnology (SSNN)

Chairs	I. Narolschi, A. Chirita
CMT P1	<p><u>E.Yu. Kanarovskii, O.V. Yaltychenko, S.A. Baranov</u> THEORETICAL MODEL OF LIPID PEROXIDATION KINETICS INVOLVING THREE DIFFERENT ANTIOXIDANTS: FLAVONOID, α-TOCOPHEROL AND ASCORBATE <i>Moldova</i></p>
CMT P2	<p><u>S.I. Klokishner, O.S.Reu</u> VALENCE TAUTOMERIC TRANSFORMATION IN MOLECULAR [FeCo] COMPOUND: EXPLORATION OF COOPERATIVE INTERACTIONS <i>Moldova</i></p>
CMT P3	<p><u>R.Z. Ibayeva, G.B. Ibragimov</u> OPTICAL ABSORPTION IN QUANTUM DOT SUPERLATTICES WITH PARABOLIC POTENTIAL <i>Azerbaijan</i></p>
CMT P4	<p><u>I.D. Cebotari</u> SYSTEMS WITH STRONG COULOMB AND ELECTRON-PHONON INTERACTION: METHODS OF INVESTIGATING AND RESULTS <i>Moldova</i></p>
CMT P5	<p><u>V. Dobrovolschi, I.Sanduleac, V.Tronciu</u> THEORETICAL STUDIES OF PICOSECOND PULSE GENERATION IN GAIN-SWITCHED DFB LASERS <i>Moldova</i></p>
CMT P6	<p><u>A.S. Cudreaşov, P. Bardetski, M.A. Macovei</u> FEW DIPOLE-DIPOLE INTERACTING TWO-LEVEL EMITTERS IN AN INTENSE LASER FIELD <i>Moldova</i></p>
CMT P7	<p><u>A.A. Cliucanov, A. Varzari, S. Vatavu</u> PHONON STRUCTURE OF DEFECT BAND AND EXCITON PHOTOLUMINESCENCE SPECTRA IN CdTe AND THE HUANG-RHYS FACTOR <i>Moldova</i></p>
SSNN P1	<p><u>L.A. Konopko, A.A. Nikolaeva, T.E. Huber, D. Shiversky</u> ANISOTROPIC THERMOELECTRIC DEVICES BASED ON SINGLE-CRYSTAL Bi MICROWIRES AND FILMS <i>Moldova, USA</i></p>

SSNN P2	<p><u>S. Baranov, O. Yaltychenko, E. Kanarovskii</u> APPLICATIONS OF MAGNETIC MICRO- AND NANOWIRES AS A CODE LABELS <i>Moldova</i></p>
SSNN P3	<p><u>O. Yaltychenko, E. Kanarovskii</u> MODELING AND PARAMETRIC CONTROL OF A SINGLE-ELECTRON TUNNELING OF THE "NANOOBJECT-ELECTRODE" TYPE USING THE EXAMPLE OF A TRIMER NANOCUSTER. <i>Moldova</i></p>
SSNN P4	<p><u>I.-M. Pletea, V. Șontea</u> HETEROGENOUS INTEGRATIONS ON 3D INTEGRATED CIRCUITS <i>Moldova</i></p>
SSNN P5	<p><u>D. Savastru, A.A. Popescu</u> SURFACE PLASMON-WAVEGUIDE RESONANCES IN STRUTURES WITH AMORPHOUS AS₂S₃ FILMS <i>Romania</i></p>
SSNN P6	<p><u>I. Vutcariova, G. Balan</u> MODIFICATION IN REDOX POTENTIAL DURING ELECTROLYSIS OF MILK WHEY <i>Moldova</i></p>
SSNN P7	<p><u>V. Suman, T. Potlog, D. Untila, I. Lungu, E. Stratulat, M. Diru</u> PHOTOPHYSICAL PROPERTIES of ZnPc(SO₃H)₄/CHITOSAN/AgNPs SYSTEMS <i>Moldova</i></p>
SSNN P8	<p><u>A.-G. Niculescu, A.C. Bîrcă, D.I. Tudorache, A.M. Holban, A. Hudiță, R.D. Trușcă, O.M. Munteanu (Mihaiescu), B.Ș. Vasile, M. Rădulescu, T. Hadibarata, A.M. Grumezescu</u> INNOVATIVE 3D MICROFLUIDIC SYNTHESIS OF MAGNETIC NANOPARTICLE-ENHANCED SILICA AEROGEL COMPOSITES FOR EFFICIENT PESTICIDE REMOVAL FROM WATER <i>Romania, Malaysia</i></p>
SSNN P9	<p><u>A.-G. Niculescu, A.C. Bîrcă, D.I. Tudorache, A.M. Holban, A. Hudiță, R.D. Trușcă, D. Istrati, B.Ș. Vasile, T. Hadibarata, A.M. Grumezescu, D.E. Mihaiescu</u> DEVELOPMENT OF FUNCTIONALIZED SILICA AEROGEL NANOCOMPOSITES FOR SOLID PHASE EXTRACTION IN ENVIRONMENTAL MONITORING <i>Romania, Malaysia</i></p>
SSNN P10	<p><u>T.D. Gutsul, S.N. Zavrjainii, S.A. Moldovanu, M.C. Lupu, V.M. Fedorov</u> MORPHOLOGY AND OPTICAL PROPERTIES OF ZnFe₂O₄ THIN FILMS GROWN BY RF-MAGNETRON SPUTTERING <i>Moldova</i></p>

SSNN P11	T.D. Gutsul, M.C. Lupu, E.I. Monaico, N.V. Costriucova, D.O. Podgornii FORMATION OF ZnFe ₂ O ₄ /ZnO:Al THIN FILM HETEROSTRUCTURE WITH THE PEROXIDASE MIMETIC PROPERTIES BY RF-MAGNETRON SPUTTERING METHOD <i>Moldova</i>
SSNN P12	V. Cazac, E. Achimova, V. Abashkin, A. Meshalkin OPTIMAL COMPUTATIONAL PROCESSING OF DIGITAL PHASE MASKS FOR DIGITAL HOLOGRAPHY <i>Moldova</i>
SSNN P13	V. Morari, V. Ciobanu, E. V. Rusu, V.V. Ursachi TECHNOLOGICAL ASPECT ON MORPHOLOGICAL AND ELECTRICAL PROPERTIES OF ZnO AND ZnMgO FILMS <i>Moldova</i>
SSNN P14	V. Goremichin, N. Siminel, L. Kulyuk SONICATION-ASSISTED LIQUID-PHASE EXFOLIATION OF MoS ₂ AND WSe ₂ LAYERS <i>Moldova</i>
SuperQuMap P1	J.D. Bermúdez-Perez, E. Herrera-Vasco, H. Rojas-Páez, O.L. Herrera-Sandoval, H. Suderow, P. Giraldo-Gallo, J. Augusto Galvis THERMOELECTRIC POWER STUDY OF 2D DICHALCOGENIDES THROUGH SCANNING THERMOPOWER MICROSCOPY ADAPTED IN A SCANNING TUNNEL MICROSCOPE <i>Colombia, Spain</i>
SuperQuMap P2	V. Boian, M. Lupu, A. Sidorenko SUPERCONDUCTING NANOSTRUCTURES FOR SPINTRONICS <i>Moldova</i>
SuperQuMap P3	S. Šćepanović, J. Mirković, T. Klamroth, A. Hassanién EDGE MAGNETISM IN ARMCHAIR GRAPHENE NANORIBBONS <i>Montenegro, Slovenia, Germany</i>

THURSDAY, 3RD OCTOBER 2024

Hall "Regina Maria" – 137/C	
Plenary Session	
Chairs	W. Lang (9:00 – 11:00) B. Ujfalussy (11:30 – 13:00)
9:00	V.M. Fomin SUPERCONDUCTOR 3D NANOARCHITECTURES <i>Germany, Moldova</i>
09:30	P. Miranović ATTRACTIVE VORTEX-VORTEX INTERACTION IN LOW- κ SUPERCONDUCTORS <i>Montenegro</i>
10:00	E. Saucedo KEY PROGRESSES OF SOLUTION BASED KESTERITE SOLAR CELLS <i>Spain</i>
10:30	A.V. Silhanek MAGNETIC LIGHTNING IN SUPERCONDUCTING FILMS <i>Belgium</i>
11:00 – 11:30	COFFEE BREAK
11:30	O. Dobrovolskiy VORTEX COUNTING AND VELOCIMETRY BASED ON SLITTED SUPERCONDUCTING MICROBRIDGES <i>Germany</i>
12:00	J. Van de Vondel NON-INVASIVE PROBING OF SUPERCONDUCTING NANOSTRUCTURES <i>Belgium</i>
12:30	H. Cesiulis CHARACTERIZATION OF METALLIC FOAMS AND THE VARIETY OF THEIR APPLICATIONS AS A SUBSTRATE IN ELECTROCHEMICAL TECHNOLOGIES <i>Lithuania</i>
13:00 – 14:00	LUNCH BREAK

Hall "Regina Maria" – 137/C

Oral Session – Electromagnetic radiation detection and conversion (EMDC)

Chairs M. Rusu, S. Vatavu

14:00 **S. Cichon, P. Hruska, J. Lancok**

Keynote XPS: A POWERFUL TOOL FOR QUALITATIVE AND QUANTITATIVE CHEMICAL ANALYSIS OF HEA MATERIALS

*Czech Republic*14:30 **J. Garí-Galíndez, R. Fonoll-Rubio, J. Andrade-Arvizu, P. Vidal-Fuentes,**Keynote **A. Perez-Rodriguez, V. Izquierdo-Roca, M. Guc**

ACCELERATING THIN FILM PHOTOVOLTAIC TECHNOLOGY DEVELOPMENT THROUGH HOLISTIC CHARACTERIZATION AND ARTIFICIAL INTELLIGENCE-DRIVEN DATA ANALYSIS

*Spain*15:00 **V. Rotaru, M. Miró Llorente, R. Fonoll-Rubio, J. Andrade-Arvizu, D. Payno, M. Guc, A. Pérez-Rodríguez, V. Izquierdo-Roca, P. Vidal-Fuentes**

THE LINK BETWEEN FLUCTUATIONS IN THE i-ZnO LAYER AND THE PERFORMANCE HOMOGENEITY OF KESTERITE BASED THIN FILM SOLAR CELLS

*Spain*15:15 **R. Udrea, S.A. Irimiciuc, P. Garoi, V. Craciun**

STUDY ON THE DEPOSITION AND PROPERTIES OF HAFNIUM-BASED HIGH ENTROPY ALLOYS

*Romania*15:30 **Gh. Ghilețchii, Ig. Narolschi, T. Unold, S. Schorr, M. Rusu, S. Vatavu**DEVELOPMENT AND TUNING OF CHEMICAL COMPOSITION, CRYSTAL STRUCTURE AND ELECTRONIC PROPERTIES OF ZnSnN₂ THIN FILMS*Moldova, Germany*

COFFEE BREAK

Hall 2 – 141/C

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

Chairs **N. Tsyntsaru, O. Șapoval**

14:00 **A. Uzunoglu**

Keynote PRINTED FLEXIBLE ELECTRODES BASED ON 2-DIMENSIONAL MATERIALS FOR SENSING AND ENERGY STORAGE APPLICATIONS

Türkiye

14:25 **R. Levinas, V. Pakštas, A. Jagminienė, I. Stankevičienė, R. Viter, L. Tamašauskaitė-Tamašiūnaitė, E. Norkus**

Keynote WHITE-LIGHT-SENSITIVE TiO₂/CuO/Ag PHOTOELECTRODES: SYNTHESIS AND PHOTOELECTROCHEMICAL PROPERTIES

Lithuania, Latvia

14:50 **T.K. Ratajczyk, M. Donten**

ELECTRODEPOSITED TUNGSTEN-CONTAINING HIGH-ENTROPY ALLOYS AS VERSATILE CATALYSTS OF WELL-CONTROLLED PROPERTIES

Poland

15:05 **A. Tcacenco, I. Cahanovcshi, I. Porumbel, T. Cuciuc, A. Bogoi, M. Gall, A. V.Cojocea, D. Asoltanei, G.I. Vrabie, C. Anton**

THRUST MEASUREMENTS IN A ROTATING DETONATION ENGINE

Romania, Moldova

15:20 **D.M. Kroitoru, S.H. Ivashku, S.T. Sklifos, Z.I. Bobanova, S.M. Iatsko**

INVESTIGATION OF THE APPLICATION PROCESS OF FE-WC COMPOSITIONAL GALVANIC COATINGS

Moldova

15:35 **J.I. Bobanova, S.P. Yushchenko, S.H. Ivashku, D.M. Croitoru, P.G. Globa**

PECULIARITIES OF ELECTRODEPOSITION OF COBALT-TUNGSTEN ALLOYS FROM GLUCONATE ELECTROLYTES

Moldova

COFFEE BREAK

Hall 3 – 145/C**Oral Session – Emerging Quantum Materials based on Superconducting Nanostructures (SuperQuMap)**Chairs **J. Van de Vondel, N. Barišić**

-
- 14:00 **B. Ujfalussy, G. Csire, N. Kucska**
 QUANTUM SIZE EFFECTS ON ANDREEV TRANSPORT IN JOSEPHSON JUNCTIONS
Hungary, Austria
-
- 14:30 **V. Pokorný, M. Žonda, C. Li**
 ENGINEERING QUANTUM STATES IN RADICAL MOLECULES ON
 SUPERCONDUCTING SURFACES
Czech Republic, Switzerland
-
- 15:00 **Miguel Rodríguez Martín, T.A. Zaleski**
 SUPERFLUIDITY ON NON-TRIVIAL GEOMETRIES IN A MAGNETIC FIELD AND FINITE
 TEMPERATURES IN THE CONTEXT OF THE BOSE-HUBBARD MODEL
Poland
-
- 15:20 **I. Bogush, V.M. Fomin, O.V. Dobrovolskiy**
 VORTEX DYNAMICS SIMULATIONS IN 3D CURVED SUPERCONDUCTOR MEMBRANES
Germany, Moldova
-
- 15:40 **A.O. Pokusinskyi, A.L. Kasatkin, O.V. Dobrovolskiy**
 FRACTIONAL VORTICES AND FLUX-FLOW INSTABILITIES IN TWO-BAND
 SUPERCONDUCTORS
Germany, Ukraine
-
- 16:00 – 16:30 COFFEE BREAK
-
- 16:30 **V.R. Misko, F. Nori**
 ENHANCED MAGNETIC FLUX PINNING AND CRITICAL CURRENT IN
 SUPERCONDUCTORS WITH NON-PERIODIC PINNING ARRAYS
Belgium, Japan, USA
-
- 17:00 **A.A. Nikolaeva, L.A. Konopko, T.E. Huber, G. Para, I. Gherghishan**
 ESTIMATION OF CARRIER DENSITY IN Te-DOPED BISMUTH MICROWIRES
Moldova, USA
-
- 17:30 **L.A. Konopko, A.A. Nikolaeva, T.E. Huber**
 QUANTUM OSCILLATIONS AT THE TOPOLOGICAL INSULATOR
 MICROWIRE/TOPOLOGICAL SUPERCONDUCTOR INTERFACE
Moldova, USA
-

Poster Session C:

Electromagnetic radiation detection and conversion (EMDC)

Materials Engineering for Innovative and Sustainable Technologies (MEST)

Chairs **N. Kazak, A. Meshalkin**

EMDC P1 **I.V. Belousov, V.I. Pavlenko**

TIME-RESOLVED EMISSION FROM CdSe/CdS/CdZnS QUANTUM DOT FILMS

Moldova

EMDC P2 **V. Pavlenko, I. Belousov**

TIME-INTEGRATED PHOTOLUMINESCENCE FROM CdSe/CdS/CdZnS QUANTUM DOT FILMS

Moldova

EMDC P3 **O. Gherasim, R. Udrea, V. Grumezescu, P. Prepelita, B.S. Vasile, A.M. Holban, S. Chertopalov, J. Lancok, V. Craciun, S.A. Irimiciuc**

IN-SITU FUNCTIONALITY OF SILVER OXIDE COATINGS TUNED BY PHASE CONTROL DURING PULSED LASER DEPOSITION

Romania

EMDC P4 **A. Chirita, A. Hustuc, N. Nasedchina, S. Vatavu**

POLYMER/CHALCOGENIDE SEMICONDUCTOR STRUCTURE FOR X-RAY IMAGING

Moldova

EMDC P5 **P.M. Chetruș, L. Gorceac, P.I. Chetruș, P. Gaugaș, S. Vatavu**

PHOTODETECTION DEVICES BASED ON INDIUM PHOSPHIDE HETEROJUNCTION

Moldova

EMDC P6 **D. Spoială, E. Vatavu, L. Dmitroglo, Gh. Ghilețchii, M. Rusu, S. Vatavu**

TECHNOLOGY TUNING AND ELECTRONIC PROPERTIES OF GALLIUM SULPHIDE THIN FILMS FOR PHOTODETECTORS

Moldova, Germany

MEST P1 **O.V. Motorin, M.K. Bologa, I.V. Podlesny**

IMPROVING THE PERFORMANCE OF EVAPORATION-CONDENSATION SYSTEMS IN AN ELECTRIC FIELD

Moldova

MEST P2 **I.V. Paladii, E.G. Vrabie, M.K. Bologa, V.G Vrabie, T.G. Stepurina, A.A. Policarpov, C.Gh. Sprincean**

RECOVERY OF CASEINS AT THE ELECTROACTIVATION OF WHEY

Moldova

MEST P3 **V.V. Parshutin, A.M. Paramonov, A.V. Koval', V.V. Gorinchoy, V.I. Lozan**

SUPPRESSION OF CORROSION OF STEELS IN WATER BY MIXTURES OF FURACILIN WITH ORGANIC SUBSTANCES

Moldova

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- MEST P4 **V.V. Parshutin, A.M. Paramonov, A.V. Koval', T.D. Kubritskaya**
PROTECTION OF STEELS FROM CORROSION BY EXTRACTS OF A PLANT ORIGIN.
Moldova
-
- MEST P5 **A.V. Koval'**
HIGH-FREQUENCY ELECTROSPARK ALLOYING - AS A WAY TO INCREASE THE
PHYSICAL AND CHEMICAL PROPERTIES OF METAL SURFACES.
Moldova
-
- MEST P6 **V.V. Parshutin, A.V. Koval, V.V. Gorinchoy, V.I. Lozan**
Heteronuclear salicylate complex - as a corrosion inhibitor of steel St. 3 in water
Moldova
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- MEST P7 **V.V. Parshutin, A.M. Paramonov, A.V. Koval'**
INVESTIGATION OF CORROSION PROPERTIES OF Ni-Re ALLOYS AND THEIR
COMPONENTS
Moldova
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- MEST P8 **V.V. Parshutin, A.M. Paramonov, A.V. Koval'**
CORROSION PROPERTIES OF NI-RE ALLOYS DOPED WITH ZIRCONIUM,
HAFNIUM, TUNGSTEN AND PALLADIUM
Moldova
-
- MEST P9 **T.D. Kubritskaya, M.K. Bologa, G.K. Balan, T.D. Shemyakova**
CAVITATION EXTRACTION OF BIOLOGICALLY ACTIVE SUBSTANCES FROM PLANT
RAW MATERIALS FOR PHARMACEUTICALS AND AGRICULTURE
Moldova
-
- MEST P10 **T. Cuciuc, I. Porumbel, M. Bologa**
THE INSTABILITY OF THE CAVITATION FLOW PAST A CYLINDER WITH A
TURBULENT BOUNDARY LAYER
Moldova, Romania
-
- MEST P11 **O.A. Bolotin, V.P. Gonciaruc, M.K. Bologa, A.A. Policarpov, S.V. Siutkin,
Yu.G. Golovko**
ACTIVATION OF MINERAL RAW MATERIALS IN CONDITION
MAGNETOFLUIDIZATION
Moldova
-
- MEST P12 **E.V. Likrizon**
INFLUENCE OF THE STRUCTURE OF THE ANODIC OXIDE SHELL ON THE SPEED
OF ANODIC DISSOLUTION IN ELECTRODES FOR ELECTROCHEMICAL MACHINING
Moldova, Transnistria
-
- MEST P13 **I.M. Chernica, M.K. Bologa**
HEAT TRANSFER OF ROUGH SURFACES IN AN ELECTRIC FIELD
Moldova
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- MEST P14 **I.M. Chernica**
LAMINAR MOTION OF NON-NEWTONIAN FLUIDS IN CIRCULAR PIPES
Moldova
-
- MEST P15 **S. Baranov**
PRODUCTION AND PROPERTIES OF MAGNETIC MICRO- AND NANOWIRES.
SURFACE ENERGY IN NANOWIRES
Moldova
-
- MEST P16 **T. Isac-Guțsul, E. Tutovan, D.L. Nika**
STUDY OF AZITHROMYCIN HYDRATE DEGRADATION IN THE UV/H₂O₂ SYSTEM
Moldova
-
- MEST P17 **T. Datsko, V. Zelentsov**
PHOTOCATALYSIS vs ADSORPTION on HYBRID PHOTOCATALYST COMPARISON
Moldova
-
- MEST P18 **V.V. Mikhailov, S.H. Ivashku, N.N. Kazak, A.I. Yanakevich**
INFLUENCE OF THE MOVEMENT FORM OF PROCESSING ELECTRODES ON THE
COATING FORMATION PROCESS DURING ELECTRO-EROSION ALLOYING OF
STEELS
Moldova
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- MEST P19 **V.A. Sharagov, G.I. Curicheru**
ANALYSIS OF COMPOSITION AND STRUCTURE OF SURFACE LAYERS OF SHEET
GLASS, THERMOCHEMICALLY TREATED WITH GASEOUS REAGENTS, USING THE
METHOD OF SECTION ETCHING BY HF SOLUTION
Moldova
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- MEST P20 **M.E. Moisă, M. Pap, C. Paizs, L.C. Bencze, M.I. Toșa**
IMMOBILIZED PHENYLALANINE AMMONIA-LYASE FROM ARABIDOPSIS
THALIANA FOR CONTINUOUS-FLOW PRODUCTION OF L-AMINO ACIDS
Romania
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- MEST P21 **V.A. Sharagov, G.I. Curicheru**
IMPROVING PHYSICO-CHEMICAL PROPERTIES OF INDUSTRIAL GLASSWARE BY
COMBINING THERMOCHEMICAL TREATMENT WITH GASEOUS REAGENTS AND
THERMOMAGNETIC TREATMENT
Moldova
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FRIDAY, 4TH OCTOBER 2024

Hall "Regina Maria"	
Plenary Session & Closing Ceremony	
Chairs	L. Kulyuk, S. Vatavu
10:00	N. Tsyntsaru UNLOCKING THE POWER OF ELECTROSPARK ALLOYING AND ELECTROCHEMICAL METHODS FOR SHAPING INNOVATIVE MATERIALS <i>Moldova, Lithuania</i>
10:30	S. A. Irimiciuc, S. Cichoň, P. Hruška, S. Vatavu, V. Craciun, J. Lancok PULSED LASER DEPOSITION OF HIGH ENTROPY ALLOY THIN FILMS: TAILORING PROPERTIES BY GAS PHASE PLASMA CHEMISTRY <i>Romania, Czech Republic</i>
11:00 – 11:30	COFFEE BREAK
11:30	P. Hruška, S. Cichoň, S.A. Irimiciuc, F. Lukáč, J. Lančok CHARACTERIZATION OF LATTICE DEFECTS IN HIGH-ENTROPY ALLOY THIN FILMS BY POSITRON ANNIHILATION SPECTROSCOPY <i>Czech Republic</i>
12:00	L. Kulyuk, S. Vatavu CLOSING CEREMONY