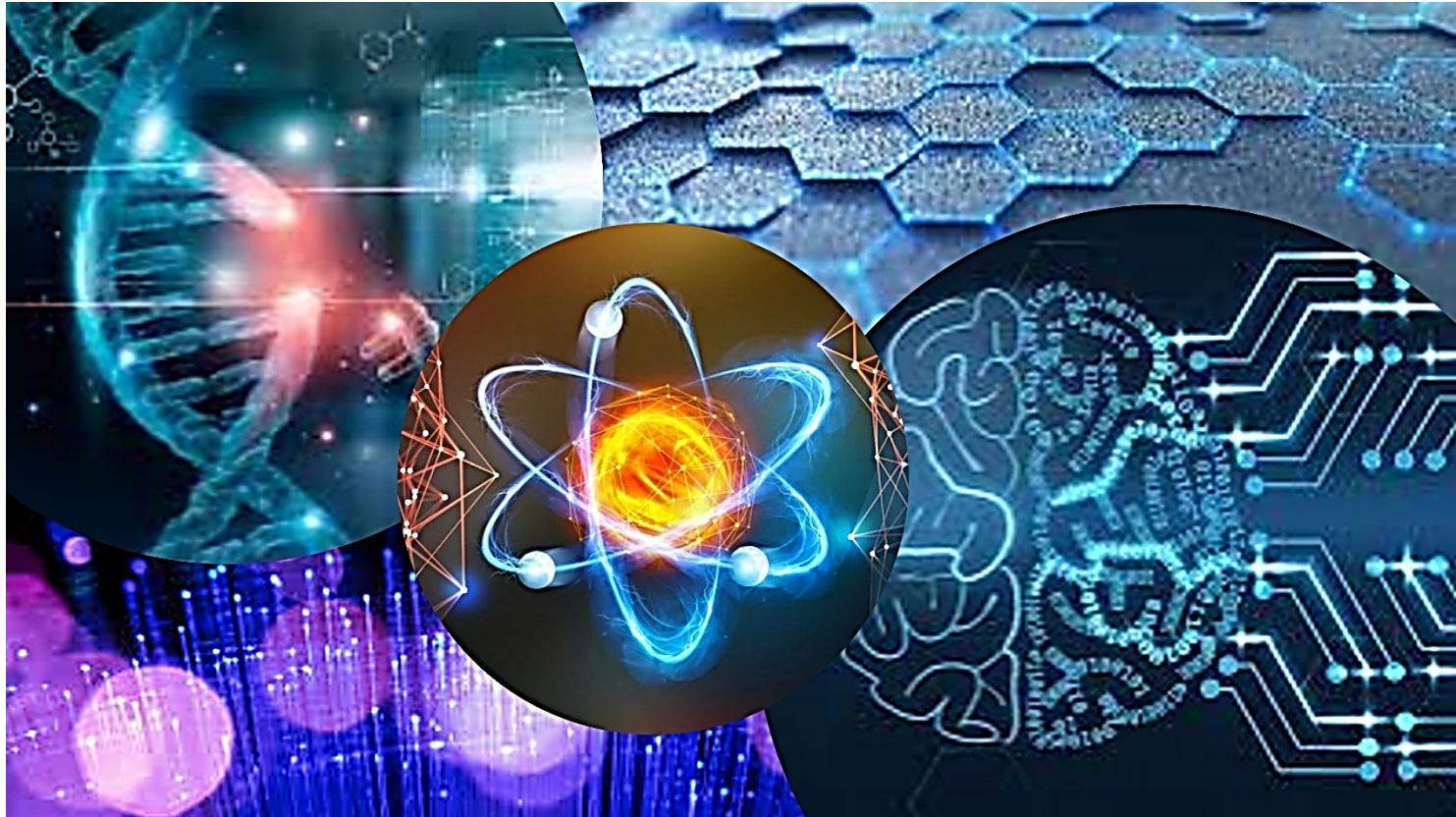




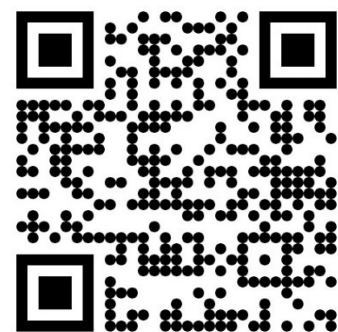
THE ***TENTATIVE*** PROGRAM

APMAS 2025

ENEFM 2025

GENERA 2025

MEDOPTICS 2025



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APMAS 2025
15th International Advances in Applied Physics & Materials
Science Congress & Exhibition
OCTOBER 21-27, 2025

ENEFM 2025
11th International Congress on Energy Efficiency and Energy
Related Materials
OCTOBER 21-27, 2025

GENERA 2025
Global Exchange on Next-Gen Engineering and Life Sciences
Research and Applications
OCTOBER 21-23, 2025

MEDOPTICS 2025
4th International Conference on Medical Optics
OCTOBER 21-27, 2025

Liberty Hotels Lykia, Oludeniz
MUGLA / TURKEY

TENTATIVE PROGRAM SUNDAY, OCTOBER 19, 2025	
<i>14:00-16:30</i>	REGISTRATION FOR EARLY ARRIVALS (14:00 Check-in)

TENTATIVE PROGRAM MONDAY, OCTOBER 20, 2025	
<i>9:00-16:30</i>	REGISTRATION (14:00 Check-in)
<i>Everyday Tours</i>	SOCIAL PROGRAM

	• <i>Saklıkent Jeep Safari</i> • <i>Paragliding in Oludeniz</i>
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TENTATIVE PROGRAM TUESDAY, OCTOBER 21, 2025	
APMAS & ENEFM & GENERA & MEDOPTICS	
HALL 1	
PLENARY SESSION 10:30-11:15	Chairperson: A.Yavuz Oral Thomas Webster Brown University, USA “ID3- Next Generation Implants: Say "No" to Drugs and "Yes" to Nanomedicine: 30,000 Human Successes”
11:15-11:45	COFFEE BREAK
PLENARY SESSION 11:45-12:30	Chairperson: A.Yavuz Oral Tahir Tahirov University of Nebraska Medical Center, Eppley Institute for Cancer Research, USA “ID6- Mechanism of human primosome function”

12:30-14:00	LUNCH	
PARALLEL SESSIONS 14:00-15:30	APMAS ENEFM HALL 1 Chairperson: Aliaksandr Smirnov 14:00-14:30 Aliaksandr Smirnov BSUIR, Belarus (invited speaker) ID2815- Memristive memory array based on chalcogenide phase change materials: physics, technology and applications 14:30-15:00 Tatiana Kuzmicheva Lebedev Physical Institute RAS, Russian Federation (invited speaker) ID2862- Possible Spectroscopic Evidence of Electron Nematicity in Na-deficient and Underdoped Na(Fe,Co)As Pnictides 15:00-15:30 Elena Alekseeva Saint-Petersburg University, Russian Federation (invited speaker) ID643- Nitrogen Ion Modification of Carbon Nanotubes as a Versatile Platform for 2e⁻ and 4e⁻ Oxygen Reduction Pathways	APMAS GENERA MEDOPTICS HALL 2 Chairperson: Dina Deyneko 14:00-14:30 Dina Deyneko Lomonosov Moscow State University, Russian Federation (invited speaker) ID2856- LUMINESCENT MATERIALS IN BONE SUBSTITUTES 14:30-15:00 Lucian Baia “Babes-Bolyai” University, Romania (invited speaker) ID2841- Alginate-based biocomposites for tissue engineering applications 15:00-15:30 Monica Baia Babes-Bolyai University, Romania (invited speaker) ID2842- From Noble Metal Nanoparticles to Multifunctional SERS Substrates

15:30-16:00	COFFEE BREAK
PARALLEL SESSIONS 16:00-18:10	APMAS ENEFM GENERA MEDOPTICS HALL 1 Chairperson: Hendrik C Swart 16:00-16:30 Hendrik C Swart University of the Free State, South Africa <i>(invited speaker)</i> ID650- Down and Upconversion layers for enhancing the performance of c-Si solar cell efficiency 16:30-17:00 Yuri Kalvachev Bulgarian Academy of Sciences, Bulgaria <i>(invited speaker)</i> ID2907- Synthesis and application of nanosized mordenite 17:00-17:20 Man Xu China Nuclear Power Engineering Co., Ltd, China ID641- Current Status of Modular Construction Technology for Nuclear Power Plants 17:20-17:40 Yang Lu China Nuclear Power Engineering Co., Ltd., China ID614- Design Study on the Backup Cooling System for Pressurized Water Reactor Nuclear Power Plants 17:40-18:10 Gul-e-Saba Chaudhry UMT, Malaysia <i>(invited speaker)</i> ID16- The Science of Self-Destruction: Smart Apoptotic Inducers Bridging Natural Products, Metal Complexes, and Nanomaterials in Cancer

TENTATIVE PROGRAM WEDNESDAY, OCTOBER 22, 2025	
APMAS & ENEFM & GENERA & MEDOPTICS	
HALL 1	
PLENARY SESSION 09:45-10:30	Chairperson: A.Yavuz Oral Jian-Jiang Zhong Shanghai Jiao Tong University, China <i>"ID4- Synthetic Biology-Based Biomanufacturing"</i>
10:30-11:00	COFFEE BREAK
PLENARY SESSION 11:00-11:45	Chairperson: Ersin Kayahan Krill V. Larin University of Houston, USA <i>"ID...-Recent Advances in Optical Coherence Elastography"</i>

PARALLEL SESSIONS	11:00-12:30	APMAS ENEFM HALL 1 Chairperson: Arcady Zhukov 11:00-11:30 Arcady Zhukov Univ. Basque Country, UPV/EHU, Spain <i>(invited speaker)</i> ID2821- MAGNETIC PROPERTIES AND APPLICATIONS OF GLASS-COATED FERROMAGNETIC MICROWIRES 11.30-12:00 Carmen Tuca Horia Hulubei National Institute for R D in Physics and Nuclear Engineering, Romania <i>(invited speaker)</i> ID2814- Developing and implementing of a digitalization system to streamline radiological characterization of the facilities under decommissioning 12:00-12:20 Tebogo Sfiso Mahule University of South Africa, South Africa ID2851- Photoluminescence and ESR study of nanosized TMCexDyxFe2-2xO4 (TM = Co, Ni) ferrites	APMAS GENERA MEDOPTICS HALL 2 Chairperson: József Bódis 11:00-11:30 József Bódis University of Pécs, Hungary <i>(invited speaker)</i> ID1-Is ultra-weak photon emission a fast communication tool for DNA? 11.30-12:00 Oksana Lastochkina Institute of Biochemistry and Genetics UFRC RAS, Russian Federation <i>(invited speaker)</i> ID20- Endophytic PGP Bacteria Bacillus subtilis: Physiological and Molecular Regulation of Wheat Tolerance to Multiple Abiotic Stresses 12:00-12:30 Han-Peter Deigner Institute of Precision Medicine, Furtwangen University, Germany <i>(invited speaker)</i> ID2921- Successful electrochemical antibiotic susceptibility determination
		12:30-13:15 LUNCH	
		13:15-18:00 SOCIAL PROGRAM 13:15-18:00 GHOST TOWN & BLUE LAGOON <i>(Gathering at Congress registration desk)</i>	

TENTATIVE PROGRAM THURSDAY, OCTOBER 23, 2025	
APMAS & ENEFM & GENERA & MEDOPTICS	
HALL 1	
PLENARY SESSION 10:00-10:45	Chairperson: A.Yavuz Oral Alper Sahiner Seton Hall University, USA “ID2919- Correlation Between Electrical Performance and Local Structure in LaSrCoO SOFC Films: Probing Sr Segregation and Multiphase Behavior”
10:45-11:15	COFFEE BREAK

PLENARY SESSION 11:15-12:00	Chairperson: Ersin Kayahan Meltem Izzetoglu Villanova University, USA “ID616- Optical Neuromonitoring for the Study of Cognitive Aging and Age-related Diseases”
12:30-14:00	LUNCH

PARALLEL SESSIONS	14:00-15:30	APMAS ENEFM HALL 1 Chairperson: Balázs Illés 14:00-14:30 Balázs Illés Budapest University of Technology and Economics, Hungary (invited speaker) ID2837- Quality and reliability of SnAgCu composite solder joints 14:30-15:00 Antonio Barbier CEA, France (invited speaker) ID2914- Multiferroic embedded ferrite platelets in BaTiO3 15:00-15:30 Branko Stankovic Energonauts LLC, Canada (invited speaker) ID651- Modified Rankine Cycle Without Heat Rejection, Driven by a Wet-Vapor-Region Thermocompressor	APMAS GENERA MEDOPTICS HALL 2 Chairperson: Marina Donova 14:00-14:30 Marina Donova G.K. Skryabin Institute of Biochemistry and Physiology of Microorganisms, Pushchino Scientific Center for Biological Research, Russian Academy of Sciences, Russian Federation (invited speaker) ID25- Engineering of microbial strains for steroid biotechnology 14:30-14:50 Daria Tekucheva IBFM RAS, Russian Federation ID24- 3-Methoxymethyl esters of sterols for microbial production of pregnenolone
	15:30-16:00	COFFEE BREAK	
	16:00-17:10	APMAS ENEFM GENERA MEDOPTICS HALL 1 Chairperson: Nadezhda Kudryasheva 16:00-16:30 Nadezhda Kudryasheva Institute of Biophysics SB RAS, Russian Federation (invited speaker) ID622- Application of Luminous Bacteria in Nanobiotechnology and Biomedicine: Monitoring of Biological Activity and Biosynthesis of Nanoparticles 16:30-16:50 Krishna Thej Pammi Guru University of South Africa, South Africa ID2858- Bio-Inspired ReRAM: Turmeric-Based Memory for Green Computing 16:50-17:10 Ngonidzashe Masunga University of South Africa, South Africa 2861- Spinel ferrite functionalised C3N5 nanocomposite for hydrogen evolution and photodegradation of organic pollutants in water: Progress made and way forward	
	17:10-17:30	COFFEE BREAK	
PARALLEL SESSIONS	17:30-18:30	FOYER (Poster Session Area) Chairperson: A. Yavuz Oral POSTER SESSION I APMAS & GENERA & MEDOPTICS	
	19:30-21:30	SPECIAL DINNER WITH ENEFM & MEDOPTICS & GENERA PLENARY - INVITED SPEAKERS (Authentic Turkish Cuisine)	

TENTATIVE PROGRAM FRIDAY, OCTOBER 24, 2025	
APMAS & ENEFM & MEDOPTICS	
	HALL 4
SPECIAL SESSION 10:30-12:30	Chairperson: A.Yavuz Oral 10:30-11:00 Desireé Cranfield University of Swansea, UK (invited speaker) ID209- The AI Wake-Up Call: Are Academics Ready to Redesign Assessment?
	11:00-12:30 SPECIAL SESSION (FOYER) A conversational AI-Cafe: "Academic Assessment in Crisis: Who's Rethinking, Who's Ready, and Who's Left Behind?"
12:30-14:00	LUNCH
PARALLEL SESSIONS 14:00-15:30	APMAS ENEFM MEDOPTICS HALL 1
	Chairperson: Martin Bernier 14:00-14:30 Martin Bernier COPL, Laval University, Canada (invited speaker) ID625- Mid-infrared fiber lasers for medical applications 14:30-15:00 Georgi Vayssilov Sofia Unviersity, Bulgaria (invited speaker) ID2829-Computational study of the cerium dioxide nanoparticles and surfaces under reaction conditions 15:00-15:30 Aleksandr Khmaladze SUNY at Albany,USA (invited speaker) ID624- Utilizing Machine Learning for Raman Spectral Analysis of Complex Biological Systems at the Sub-Cellular, Cellular and Multicellular levels

TENTATIVE P R O G R A M SATURDAY, OCTOBER 25, 2025	
APMAS & ENEFM & MEDOPTICS	
HALL 1	
PARALLEL SESSIONS 10:30-12:10	Chairperson: Sergey Katsyuba 10:30-11:00 Sergey Katsyuba FRC Kazan Scientific Centre of RAS, Russian Federation (invited speaker) ID2831- The structural pathway from its solvated molecular state to the solution crystallization of para-amino benzoic acid 11:00-11:30 Maciej Wojtaś University of Wroclaw, Poland (invited speaker) ID2898- Structure and Piezoresponse of Novel Alanine-Based Hybrid Crystals 11:30-11:50 Zineb Bouhssine Internationale University of Rabat, Morocco ID632- Thermal performance analysis of two eco-friendly wall materials in a Moroccan climate 11:50-12:10 Jae Young JOO Korea Photonics Technology Institute ID2848- DEVELOPMENT OF STICKING ROAD LINE FOR HIGH VISIBILITY UNVER HEAVY WEATHER
12:30-14:00	LUNCH
PARALLEL SESSIONS 14:00-14:50	APMAS ENEFM MEDOPTICS HALL 1 Chairperson: Eduard Gevorkyan 14:00-14:30 Eduard Gevorkyan Moscow Witte University, Russian Federation (invited speaker) ID2790- Resonant Interaction of a Signal Electromagnetic Wave with a Modulation Wave of a Dielectric Plate, Placed in a Waveguide 14:30-14:50 Sreedevi Vallabhapurapu University of South Africa, South Africa ID2852- Development of Organic-Inorganic Tandem Resistive ReRAMs for Green Computing
14:50-15:30	COFFEE BREAK

PARALLEL SESSIONS 15:30-16:50	Chairperson: Konstantin Vorotilov 15:30-16:00 Konstantin Vorotilov MIREA - Russian Technological University, Russian Federation <i>(invited speaker)</i> 2816- CHEMICAL SOLUTION DEPOSITION: FUNDAMENTALS AND NEW APPROACHES 16:00-16:30 Shaomin Shuang Shanxi University, China <i>(invited speaker)</i> ID2894-Ratiometric fluorescent metal-organic frameworks: rational designs and analytical applications 16:30-16:50 Muthumuni Managa University of South Africa, South Africa 2784- Visible-light-driven degradation of pollutants in aqueous solution using TiO₂-porphyrin conjugates
	17:00-17:30 COFFEE BREAK
	17:30-18:30 FOYER (Poster Session Area) Chairperson: A. Yavuz Oral POSTER SESSION II APMAS & ENEFM
19:30-21:30	SPECIAL DINNER WITH APMAS PLENARY - INVITED SPEAKERS <i>(Authentic Turkish Cuisine)</i>

TENTATIVE PROGRAM SUNDAY, OCTOBER 26, 2025	
APMAS & ENEFM & MEDOPTICS	
PARALLEL SESSIONS 10:30-12:30	HALL 1 Chairperson: Darya Alontseva 10:30-11:00 Darya Alontseva D. Serikbayev East Kazakhstan Technical University, Kazakhstan <i>(invited speaker)</i> ID2844- Strategies for Implant-Associated Infection Control: In Vivo Insights on TaCu and NbCu Magnetron-Sputtered Coatings 11:00-11:30 Oleg V. Levin St Petersburg State University, Russian Federation <i>(invited speaker)</i> ID644- Direct Electrochemical Co-polymerization of 3,4-Ethylenedioxythiophene and Hydroquinone: Toward Conducting Redox Polymers for Aqueous Organic Batteries 11:30-12:00 Vijaya Srinivasu Vallabhapurapu University of South Africa, South Africa <i>(invited speaker)</i> ID2853- Green ReRAMs through Biomaterials

12:30-13:15	LUNCH
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13:15-18:00	SOCIAL PROGRAM 13:15-18:00 THE BOAT CRUISE AROUND EXCELLENT BAYS OF BLUE LAGOON & VISIT TO St. NICHOLAS ISLAND <i>(Gathering at Congress registration desk)</i>
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TENTATIVE P R O G R A M MONDAY, OCTOBER 27, 2025	
PARALLEL SESSIONS 10:00-11:30	APMAS ENEFM MEDOPTICS HALL 1 Chairperson: Karolina Siskova 10:00-10:30 Karolina Siskova Palacký University in Olomouc, Czech Republic <i>(invited speaker)</i> ID2902- Bimetallic and trimetallic luminescent nanocomposites applied as multimodal bio-imaging and sensing platforms 10:30-10:50 Bartłomiej Pabich AGH University of Krakow, Poland ID2850- Challenges in the plastic deformation of structurally heterogeneous materials 10:50-11:10 Bartosz Środa West Pomeranian University of Technology in Szczecin, Poland ID620- gCN/MXene derived TiO2 composites for photocatalytic hydrogen generation under solar
	12:00 Hotel Check Out

PROGRAM LEGEND DESCRIPTIONS	
ID-	APMAS 2025 oral presentations
ID-	ENEFM 2025 oral presentations
ID-	GENERA 2025 oral presentations
ID-	MEDOPTICS 2025 oral presentations

POSTER P R O G R A M THURSDAY, OCTOBER 23, 2025 17:30-18:30		
FOYER (Poster Session Area) Chairperson: A. Yavuz Oral POSTER SESSION APMAS & GENERA & MEDOPTICS		
ID	TITLE	CONTACT AUTHOR
2804	Surface modification of semiconductors using radicals generated by heated catalyst	Akira Izumi
2797	Synthesis and SERS Application of Microtubes for Trace Detection of Organic Contaminants	Ilya Korolkov
2796	Comparative Analysis of Two Acrylate Adhesives Exposed to Water Immersion	Klára V. Machalická
2793	Effect of Glass Surface Orientation on Mechanical Behavior of Acrylate Adhesive Joints	Miroslav Vokáč
2787	Determination of substances formed during combustion of wood-based materials	Kamila Mizera
2802	Mechanical properties of apple tissue under impact loading conditions	Krzysztof Gołacki
2845	In Vitro Biocompatibility of Robotic Microplasma Sprayed Zirconium Coatings on Titanium Alloy for Orthopedic Applications	Albina Kadyroldina
2846	Magnetron sputtering of radio-absorbing multilayer Co-C-Cr coatings on undoped monocrystalline silicon	Nadezhda Prokhorenkova
2880	Histopathological Assessment of Cytoprotective Effects of 3-Aminopyridone Derivatives in a Rat Model of Metabolic Syndrome	Shynggys Sergazy
2878	Cytoprotective Potential of Novel 3-Aminopyridin-2(1H)-one Derivatives in NIH/3T3 Fibroblast Culture	Assel Urazbayeva
2875	Polymer-Engineered Aβ-Degrading Enzymes for Alzheimer's Disease Therapy via ATRP Conjugation	Bibifatima Kaupbayeva
2879	Evaluation of 3-Aminopyridone Derivatives in a Rat Model of Metabolic Syndrome: Evidence of In Vivo Cytoprotection	Alexander Gulyayev
2895	Targeting Accelerated Cellular Senescence for the Prevention of Post-COVID-19 Pulmonary Fibrosis: Screening of Synthetic and Natural Senolytics	Zarina Shulgau
2799	Facile Synthesis Route for Bulk Production of Complex Fullerene-Like MoS2 Nanostructures With Enhanced Tribological Properties	Aleš Mrzel
2806	Corrosion of Al-Mg-Sc alloy and its inhibition by surface organosilicon micro and nanolayers	Maxim Petrunin

2869	RSM Modeling of Cu–TiO ₂ /2D Nanocomposites for Photocatalytic Removal of Rhodamine B	Bachir Balarabe
2870	Photoelectrochemical Activity Testing of Graphene Oxide Embedded TiO ₂ Thin Films Decorated With Au or Ir Nanoparticles	Imanzhussip Serkul
2881	Rare-Earth Codoping Strategy in TiO ₂ Downconverting Layer for Enhanced Performance of Sensitized Solar Devices	Darya Goponenko
2882	MICROWAVE-ASSISTED SYNTHESIS OF GRAPHENE-ZNO NANORODS FOR EFFICIENT SOLAR PHOTOCATALYTIC DEGRADATION OF METHYLENE BLUE (MB) DYE	Laura Khamkhash
2883	Enhanced Photoelectrochemical Performance of TiO ₂ -Au Films via Infrared Harvesting with Li-Codoped NaYF ₄ :Yb,Er Upconversion Layers	Kamila Zhumanova
2905	SYNTHESIS OF HIGH ENTROPY COMPOSITE COATINGS OF (TiAlTaZrNbN) _{Agx} : INFLUENCE OF SILVER CONTENT ON MICROSTRUCTURAL, MECHANICAL AND TRIBOLOGICAL PROPERTIES	Gilberto Bejarano
23	GENOTYPE-DEPENDENT ENDOPHYTIC PGP BACTERIA <i>Bacillus subtilis</i> INOCULATION EFFICIENCY IN WHEAT: RELATIONSHIP WITH SEEDS ENDOPHYTIC MICROBIOME AND FIELD RESPONSE	Liudmila Pusenkova
18	TARGETING APOPTOSIS MECHANISMS: SYNERGISTIC CYTOTOXIC EFFECTS OF PD(II) COMPLEXES AND CURCUMIN IN MCF-7 BREAST CANCER CELLS	Zeenia Zeenia

TENTATIVE POSTER PROGRAM SATURDAY, OCTOBER 25, 2025 17:30-18:30 FOYER (Poster Session Area) Chairperson: A. Yavuz Oral POSTER SESSION APMAS & ENEFM		
ID	TITLE	CONTACT AUTHOR
2822	SINGLE DOMAIN WALL PROPAGATION IN CO-RICH MAGNETIC MICROWIRES WITH GRADED MAGNETIC ANISOTROPY	Valentina Zhukova
2833	Nanomaterials with bactericidal properties for medical textile applications	Bauyrzhan Maratuly
2832	SYNTHESIS OF COUMARINPHOSPHONIUM SALTS AND REACTIONS WITH AROMATIC ALDEHYDE	Rositca Nikolova
2843	One-pot synthesis of fused-rings heterocyclic systems based on symmetrically benzofuran annulated 1,8-naphthalimides	Yulian Zaganyarski
2865	CORRELATION OF THE ELECTRONIC PROPERTIES OF 2D CONJUGATED MOFS WITH THEIR LINKER AROMATICITY USING NUCLEAR INDEPENDENT CHEMICAL SHIFT	Kristina Simeonova
2912	Plant-Derived Exosome-Like Nanoparticles from Berries as Novel Carriers of Polyphenols: Safety and Anti-Inflammatory Properties In Vitro	Nursultan Kalamov
2906	ANALYSIS OF OIL-PAPER INSULATION MATERIAL IN POWER TRANSFORMERS USING FREQUENCY DIELECTRIC SPECTROSCOPY	Miroslav Gutten
2860	Insights into the defect structure of NaBa ₁₂ (BO ₃) ₇ F ₄ (NBBF) crystals using Raman spectroscopy and dielectric measurements	Tatyana Bekker
2791	TESTING OF CLAY-CARBONATE TYPE LITHIUM-BORATE ORE. PART I: CHEMICAL-MINERALOGICAL CHARACTERIZATION OF THE ORE	Ivana Jovanović
2792	TESTING OF LITHIUM - BORATE ORE OF CLAY - CARBONATE TYPE PART 2: METHODS OF SELECTIVE SEPARATION OF Li FROM B	Vesna Conic
2899	Modification of photoactive PVA containing WO ₃ thin films by Intense Pulsed Ion Beam	Alshyn Abduvalov
2857	A FACILE ELECTROCHEMICAL METHOD FOR FUNCTIONALIZATION OF ANTHRAQUINONE DERIVATIVES	Jelena Kirilova
2801	ADSORPTION EFFICIENCY OF ACTIVATED MACADAMIA NUTSHELL FOR THE REMOVAL ORGANOCHLORINE PESTICIDES: ENDRIIN AND 4,4-DDT FROM AQUEOUS SOLUTION	Mokete Phele
2864	LOW-COST SYNTHESIS OF IODINE-DOPED CARBON DOTS AS A PROMISING CONTRAST AGENT FOR CT	Timur Atabaev
2901	Intense Pulsed Ion Beam based Research Activity at Nazarbayev University	Marat Kaikanov
2884	Surface Deposition of Ti ₃ N ₄ MXene and MoS ₂ on TiO ₂ Nanorods for Enhanced Photoelectrochemical Performance	Kuralay Rustembekkyzy

607	Combustion indicators of a hydrogen-fueled TJI engine with passive and active pre-chamber under knocking conditions	Ireneusz Pielecha
608	Particulate matter emissions from disc brakes of automotive vehicles	Jacek Pielecha
610	ANALYSIS OF THE CLEAN TRANSPORT ZONE IN A SELECTED AREA OF THE CITY OF POZNAŃ	Piotr Pielecha
625	Design of peri-disubstituted tellurolo-1,8-naphthalimides	Monika Mutovska
624	Refined Characterization of Biomass Tar: Discrete Profiling of Phenolic and Aromatic Fractions	Sergejs Osipovs
654	Synthesis of Double peri-PEG Substituted 1,8-Naphthalimides	Denitsa Anastasova