

THE PROGRAM TIMETABLE



APMAS2022 & ENEFM2022 & MEDOPTICS2022



APMAS 2022
**12th INTERNATIONAL ADVANCES IN APPLIED PHYSICS &
MATERIALS SCIENCE CONGRESS & EXHIBITION**

ENEFM 2022
**8th INTERNATIONAL CONGRESS ON ENERGY EFFICIENCY &
ENERGY RELATED MATERIALS**

MEDOPTICS 2022
**INTERNATIONAL CONFERENCE OF MEDICAL OPTICS &
EXHIBITION**

OCTOBER 13-19, 2022

**Liberty Hotels Lykia, Oludeniz
MUGLA / TURKEY**

PROGRAM TUESDAY, OCTOBER 11, 2022	
<i>14:00-23:30</i>	REGISTRATION FOR EARLY ARRIVALS <i>(14:00 Check-in)</i>

PROGRAM WEDNESDAY, OCTOBER 12, 2022	
<i>9:00-23:30</i>	REGISTRATION <i>(14:00 Check-in)</i>
<i>Everyday Tours</i>	SOCIAL PROGRAM <ul style="list-style-type: none">• <i>Saklıkent Jeep Safari</i>• <i>Paragliding in Oludeniz</i>

PROGRAM THURSDAY, OCTOBER 13, 2022	
APMAS & ENEFM & MEDOPTICS	
YUNUS EMRE 1	
OPENING SESSION 10:15-10:30	Chairperson: A.Yavuz Oral OPENING CEREMONY A.Yavuz Oral
PLENARY SESSION 10:30-11:15	Chairperson: A.Yavuz Oral M. Alper Şahiner Seton Hall University, USA “Materials Based Functional Properties through Local Structural Probing by Synchrotron Based Spectroscopy”
11:15 - 11:30	COFFEE BREAK
PLENARY SESSION 11:30-12:15	Chairperson: A.Yavuz Oral Sabre Kais Purdue University, USA “Quantum Machine-Learning for Electronic Structure Calculations of Quantum Materials”

12:30-14:00	LUNCH		
PARALLEL SESSIONS 14:00-15:30	APMAS YUNUS EMRE 1	ENEFM ARISTO	MEDOPTICS EFLATUN
	Chairperson: Lech Tomasz Baczewski 14:00-14:30 Lech Tomasz Baczewski <i>(Invited speaker)</i> Institute of Physics Polish Academy of Sciences, Poland ID1944- Chiral induced spin selectivity in hybrid heterostructures composed of magnetic thin film with adsorbed chiral molecules 14:30-15:00 Shoaib Answer <i>(Invited speaker)</i> Khalifa University, Abu Dhabi, UAE ID2213- Cobalt Oxide (CoO) Nanocrystals embedded in Borate (B-O) network to induce an analogue Nano-Memristor for Neuromorphic Applications 15:00-15:30 Arkady Zhukov <i>(Invited speaker)</i> University of Basque Country and Ikerbasque, Spain ID2015- Engineering of Magnetic Properties of Co-rich Microwires by Post-processing	Chairperson: Nurhan Turgut Dunford 14:00-14:30 Nurhan Turgut Dunford <i>(Invited speaker)</i> Oklahoma State University, USA ID359- Biomass based renewable fuel production pathways 14:30-14:50 Iqra Moez Korea Institute of Science and Technology, Korea, Republic Of ID336- Sea Salt as a Stable and Cost-Effective Electrode Material for Sodium-Ion Batteries (NIBs) 14:50-15:10 Maria Kopsakangas-Savolainen Finnish Environment Institute/University of Oulu, Finland ID411- Factors Driving Household Solar PV Choices: Differences between Earlier Adopters, Potential Adopters and Non-Adopters	Chairperson: Kirill Larin 14:00-14:30 Kirill Larin <i>(Invited speaker)</i> University Of Houston, USA ID578- Biomechanics of the eye: from the cornea to the lens to the retina 14:30-15:00 Krzysztof Petelczyc <i>(Invited speaker)</i> Warsaw University of Technology, Poland ID580- Perceptually Calibrated Scale of Optical Aberrations Generated by Multifocal Corrective Lenses

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PROGRAM			
FRIDAY, OCTOBER 14, 2022			
APMAS & ENEFM & MEDOPTICS			
YUNUS EMRE 1			
PLENARY SESSION 10:00-10:45	Chairperson: A.Yavuz Oral <div style="text-align: center;"> Jae Sung Lee Ulsan National Institute of Science and Technology, Korea “Solar Hydrogen Production at Scale: Materials and Systems” </div>		
10:45-11:00	COFFEE BREAK		
PARALLEL SESSIONS 11:00-12:40	APMAS YUNUS EMRE 1 Chairperson: Gabriela Toader 11:00-11:30 Gabriela Toader <i>(Invited speaker)</i> Military Technical Academy 'Ferdinand I', Bucharest, Romania ID2161- Co-polymeric hydrogels of N-vinyl pyrrolidone containing phthalocyanine as photocatalyst for the decontamination of sulfur mustard 11:30-11:50 Rashad Badran The Hashemite University, Jordan ID2020- An Application of the analytical solution of the small signal steady-state equations: Analysis of low-temperature field-dependent measurements for nc-Si:H sample 11:50-12:10 Alzhan Baimenov National Laboratory Astana, Nazarbayev University, Kazakhstan ID2103- Highly Efficient Removal of Methylene Blue Dye by A Hybrid Adsorption–Photocatalysis Process Using Ti3C2tx Mxene/Cryogel Composites 12:10-12:40 Wael Alnahhal Qatar University, Qatar <i>(Invited Speaker)</i>	ENEFM ARISTO Chairperson: Mariama Rebello de Sousa Dias 11:00-11:30 Mariama Rebello de Sousa Dias <i>(Invited speaker)</i> University of Richmond, USA ID398- Evaluating materials for thermophotovoltaic emitters 11:30-11:50 Joaquim Massana Universitat de Girona, Spain ID366- Ahead Scheduling of Controllable Switches and Energy Storage for Optimal Power Flow Considering Forecast Errors 11:50-12:10 Marina Solovyeva Boreskov Institute of Catalysis SB RAS, Russian Federation ID391- Water adsorption dynamics on the metal-organic framework: intensification of heat transfer in sorbent bed 12:10-12:30 Mohd Rashdan Isa Universiti Tenaga Nasional, Malaysia ID376- Study on Potential and Feasibility of Alternative Fuels Production from Lemon Myrtle Biomass Waste	MEDOPTICS EFLATUN Chairperson: Janis Spigulis 11:00-11:30 Janis Spigulis <i>(Invited speaker)</i> University of Latvia, Latvia ID591- Optical Imaging Technologies for Skin Diagnostics 11:30-12:00 Sergey Alexandrov <i>(Invited Speaker)</i> National University of Ireland in Galway, Ireland ID576- Visualization of The Sub-Wavelength Structure of Biomedical Objects with Nano-Sensitivity to Structural Alterations 12:00-12:30 Larisa Klapshina <i>(Invited Speaker)</i> G.I.Razuvaev Institute of Organometallic Chemistry of Russian Academy of Sciences, Russian Federation ID575- New photosensitizers based on cyanoaryl porphyrines enabling strong antitumor, rigidochromic and immogenic effects in photodynamic therapy

	<p>ID2300- Sustainable Concrete made with Treated Domestic Wastewater and Recycled Concrete Aggregates</p>		
<p>12:30-13:30</p>	<p>LUNCH</p>		
<p>13:30-18:00</p>	<p>SOCIAL PROGRAM</p> <p>13:30-18:00 FETHIYE CITY TOUR & THE ROCK TOMBS</p> <p><i>(Gathering at Congress registration desk)</i></p>		

PROGRAM			
SATURDAY, OCTOBER 15, 2022			
APMAS & ENEFM & MEDOPTICS			
YUNUS EMRE 1			
PLENARY SESSION 10:00-10:45	Chairperson: A.Yavuz Oral		
	<p style="text-align: center;">Vladimir Popok Aalborg University, Denmark</p> <p style="text-align: center;">“Formation and Applications of Polymer Films with Gas-Phase Aggregated Nanoparticles”</p>		
10:45-11:00	COFFEE BREAK		
PARALLEL SESSIONS 11:00-12:40	APMAS YUNUS EMRE 1	ENEFM ARISTO	APMAS & MEDOPTICS EFLATUN
	Chairperson: Vladimir Stavrov	Chairperson: Ernst Bauer	Chairperson: Alexey Feofanov
	11:00-11:30 Vladimir Stavrov (Invited speaker) AMG Technology Ltd., Bulgaria ID2233 -Displacement Monitoring with Highly Performing Piezoresistive Sensors	11:00-11:30 Ernst Bauer (Invited speaker) TU Wien, Austria ID381 - Feasible routes to boost thermoelectricity of p- and n-type full-Heusler compounds	11:00-11:30 Alexey Feofanov (Invited speaker) Lomonosov Moscow State University, Russian Federation ID590 - Nanobiophotonics in The Studies of Drug-Chromatin Interactions: Single-Particle Fret Microscopy Approach
	11:30-12:00 Eduard A. Gevorkyan (Invited speaker) Moscow Witte University, Russian Federation ID1945 - Transverse-Electric Filled in a Waveguide Filled with Space-Time Modulated Magnetodielectric Medium	11:30-11:50 Aysan Safavi University of Iceland, Iceland ID350 - Kinetic modeling of nutshells pyrolytic products	11:30-12:00 Yulia Kuznetsova (Invited speaker) Ural Branch of the Russian Academy of Sciences, Russian Federation ID2289 - Glass-ceramics for White Light Emitters: The Effective Conjunction of CdS QDs in Glass and Ce doped garnets
12:00-12:20 Minvydas Ragulskis Kaunas University of Technology, Lithuania ID2172 - Detection of surface cracks in underwater concrete structures	11:50-12:10 Ausrine Zabielaite Center for Physical Sciences and Technology (FTMC), Lithuania ID345 - Investigation of hydrogen evolution on cobalt nanoparticles supported graphitic carbon nitride	12:00-12:20 Mikhail Proyavin Federal Research Center Institute of Applied Physics of the Russian Academy of Sciences (IAP RAS), Russian Federation ID2184 - Additive manufacturing of all-copper elements with complicated geometry and high surface quality for microwave technologies	
12:20-12:40 Yusuf Ziya Salik Çelik Halat ve Tel Sanayii A.Ş, Turkey ID2067 - Failure Analysis of Gear Fracture in Wire Rope Production	12:10-12:40 Ahmed Abdala Texas A&M University at Qatar, Qatar (Invited speaker) ID373 - Air dehumidification membranes for energy efficient air cooling	12:20-12:40 Jose Mustre Cinvestav, Mexico ID2142 - Ni nanophase segregation in Zn _{1-x} Ni _x S thin films	
12:30-14:00	LUNCH		

PARALLEL SESSIONS 14:00-16:00	APMAS YUNUS EMRE 1	ENEFM ARISTO	APMAS & MEDOPTICS EFLATUN
	Chairperson: Filipe Mergulhao	Chairperson: Vitezslav Benda	Chairperson: Igor Meglinski
	14:00-14:30 Filipe Mergulhao (Invited speaker) University of Porto – FEUP, Portugal ID1996 - The Potential of Biomimetic Cabbage Leaves in Preventing Biofouling of Escherichia Coli and Listeria Monocytogenes	14:00-14:30 Vitezslav Benda (Invited speaker) Czech Technical University in Prague, Czech Republic ID371 - Innovation drivers in crystalline silicon PV module technology	14:00-14:30 Igor Meglinski (Invited Speaker) Aston University, UK ID594 - Functional Brain Imaging with Dynamic Light Scattering Imaging
	14:30-15:00 Svetoslav A. Kuzmichev (Invited speaker) Lomonosov Moscow State University, Russian Federation ID2283 - Superconducting order parameter in alkali-based iron arsenides by means of the planar break-junction technique	14:30-14:50 Anna Dymerska West Pomeranian University of Technology, Poland ID367 - Metal-organic frameworks based on nickel as an active electrocatalyst for oxygen evolution from water decomposition	14:30-14:50 Anna Akinina MIPT, Russian Federation ID2266 - MET sensor with a sensitivity controlled by electrical signals
	15:00-15:20 Sergey Gudoshnikov National University of Science and Technology «MISIS», Russian Federation ID2075 - Non-destructive method of scanning magnetometry for determining magnetization of weakly magnetic and magnetically soft materials	14:50-15:10 Alexandra Grekova Boreskov Institute of Catalysis, Russian Federation ID383 - Innovative Geometries for Heat Exchangers: Three-Periodic Schwartz Surfaces	14:50-15:10 Alexandra Cernencu University Politehnica of Bucharest, Romania ID2298 - 3D printing of multi-layered graphene oxide - hydrocolloid composite hydrogels
15:20-15:40 Valentina Zhurikhina Peter the Great St. Petersburg Polytechnic University, Russian Federation ID2024 - Local crystallization of glass		15:10-15:40 Alison Mackay University of Manchester, UK (Invited Speaker) ID597 - Antimicrobial Photodynamic Therapy	
15:40-16:00 Nurxat Nuraje Nazarbayev University, Kazakhstan ID2136 - Designing of 2D, 3D-Conducting Polymers & Their Nanocomposites		15:40-16:00 Michal Zielinski Nicolaus Copernicus University, Poland ID2073 - Dark-bright excitons mixing in alloyed quantum dots	
16:00-16:15	COFFEE BREAK		
16:15-18:00	FOYER (Poster Session Area) Chairperson: A. Yavuz Oral POSTER SESSION I APMAS & ENEFM & MEDOPTICS		

PROGRAM SUNDAY, OCTOBER 16, 2022			
PARALLEL SESSIONS 10:00-12:50	APMAS YUNUS EMRE 1	ENEFM ARISTO	APMAS & MEDOPTICS EFLATUN
	Chairperson: Balázs Illés	Chairperson: Loreta Tamasauskaitė-Tamasiunaite	Chairperson: Sang-Wan Ryu
	10:00-10:30 Balázs Illés Budapest University of Technology and Economics, Department of Electronics Technology, Hungary (Invited speaker)	10:00-10:30 Fawzi Banat Khalifa University, UAE (Invited speaker)	10:00-10:30 Sang-Wan Ryu (Invited speaker) Chonnam National University, Korea, Republic Of

	<p>ID1947- Investigating Sn whisker growth from SnAgCu composite solder joints</p> <p>10:30-11:00 Hong Hocheng (Invited speaker) National Tsing Hua University, Taiwan</p> <p>ID2250- Ecofriendly Metal Reclamation from Casting Sand Waste by Bioleaching</p> <p>11:00-11:30 Madjid Fathi University of Siegen, Germany (Invited speaker)</p> <p>ID1988- AI & Cyber Technology for Advanced Engineering - an approach for improvement in Semiconductor production</p> <p>11:30-11:50 Ari Happonen LUT University, Finland</p> <p>ID2089- Comparing CO2 Emission Realities for Usable Life Cycle of Industrial Use Focused Concrete Floors, Surfaced with Industrial Coatings</p> <p>11:50-12:10 Ondrej Zivotsky Technical University of Ostrava, Czech Republic</p> <p>ID2011- Mn₂FeSi Heusler alloy prepared in bulk, ribbon, and powder form: microstructure and magnetism</p> <p>12:10-12:30 Jacek Ćwik Institute of Low Temperature and Structure Research, PAS, Poland</p> <p>ID1980- High Field Dependence of the Magnetocaloric Effect in Laves Phase RNi₂ Intermetallic Compounds</p> <p>12:30-12:50 Zhandos Tauanov Al-Farabi Kazakh National University, Kazakhstan</p> <p>ID2205- Adsorption of mercury on the surface of coal fly ash derived zeolites and nanocomposites: Equilibrium studies and mechanisms</p>	<p>ID374- Synthesis of Pd nanodots on 2D MnFe₂O₄ nanosheets for the cathodic reduction of CO₂ into HCOOH and anodic oxidation of CH₃OH</p> <p>10:30-10:50 Loreta Tamasauskaite-Tamasiunaite Center for Physical Sciences and Technology (FTMC), Lithuania</p> <p>ID344- Investigation of oxygen reduction and hydrogen evolution on cobalt nanoparticles-nitrogen-doped carbon</p> <p>10:50-11:10 Younes Abghoui University of Iceland, Iceland</p> <p>ID337- In pursuit of novel material for providing renewable and sustainable energy via green hydrogen production</p> <p>11:10-11:30 Nuno Cláudio Ferreira Rosa Associação Para O Desenvolvimento da Aerodinâmica Industrial (Adai), Portugal</p> <p>ID393- Shellmould, A New Concept of Blank Mold for Glass Containers Manufacturing</p>	<p>ID1923- Fabrication of 3-Dimensional ZnO-Si Hierarchical Nanowires Anchored with CdS-Shell for Sustainable Solar Fuel Generation</p> <p>10:30-11:00 Rustem Zairov (Invited speaker) Kazan Federal University, Russian Federation</p> <p>ID2247- Lanthanide chelates in colloidal state as promising luminescent biosensors and prospective MRI contrast agents</p> <p>11:00-11:20 Kamila Mizera Central Institute for Labour Protection – National Research Institute, Poland</p> <p>ID2012- The effect of manufacture process properties of epoxy-based hybrid composites</p> <p>11:20-11:40 Jan Przybysz Central Institute for Labour Protection – National Research Institute, Poland</p> <p>ID2010- Flammability and explosive characteristics of mixtures of wood dust</p> <p>11:40-12:00 Krzysztof Gołacki University of Life Sciences in Lublin, Poland</p> <p>ID1951- Studies concerning stress relaxation in apple</p> <p>12:00-12:30 Koen Bertels (Invited speaker) QBee B.V., Belgium</p> <p>IDXX- We need more PISQ-based Quantum Research</p>
12:30-13:30	LUNCH		
13:30-18:00	<p>SOCIAL PROGRAM</p> <p>13:30-18:00 THE BOAT CRUISE AROUND EXCELLENT BAYS OF BLUE LAGOON & VISIT TO St. NICHOLAS ISLAND</p> <p>(Gathering at Congress registration desk)</p>		

PROGRAM	
MONDAY, OCTOBER 17, 2022	
APMAS & ENEFM & MEDOPTICS	
YUNUS EMRE 1	
PLENARY SESSION 10:30-11:15	<p>Chairperson: A.Yavuz Oral</p> <p>Neil Mathur</p> <p>Cambridge University, UK</p> <p>“Large electrocaloric effects in PST multilayer capacitors over a wide range of useful temperatures”</p>

11:15-11:30	COFFEE BREAK		
PARALLEL SESSIONS 11:30-12:50	<p style="text-align: center;">APMAS</p> <p style="text-align: center;">YUNUS EMRE 1</p> <p>Chairperson: Henrikas Cesiulis</p> <p>11:30-12:00 Henrikas Cesiulis <i>(Invited speaker)</i> Vilnius University, Lithuania ID2118- Complexity of electronic waste recycling: the path of EPT company in SMARTELECTRODES projects</p> <p>12:00-12:30 Carmen Tuca <i>(Invited speaker)</i> "Horia Hulubei" National Institute for Physics and Nuclear Engineering, Romania ID2085- Radiation protection program on the Cyclotron U-120 type particle accelerator decommissioning</p> <p>12:30-12:50 Mohammed S. Haruna National Agency for Science and Engineering Infrastructure, Nigeria ID2265- Effects of Erbium Nanoparticles on Luminescence Properties of Rice husk Silicate Borotellurite Glasses</p>	<p style="text-align: center;">ENEFM</p> <p style="text-align: center;">ARISTO</p> <p>Chairperson: Reinhard Haas</p> <p>11:30-12:00 Reinhard Haas TU Wien, Austria <i>(Invited speaker)</i> ID415- Conditions for Competitive, Sustainable and Democratic Electricity Systems</p> <p>12:00-12:30 Elena Alekseeva Saint Petersburg University, Russian Federation <i>(Invited speaker)</i> ID312- Influence of The Synthesis Conditions to Catalytic Activity of The Oxygen Reduction Catalysts</p>	<p style="text-align: center;">APMAS & MEDOPTICS</p> <p style="text-align: center;">EFLATUN</p> <p>Chairperson: Alexander Sigov</p> <p>11:30-12:00 Alexander Sigov <i>(Invited speaker)</i> MIREA – Russian Technological University, Russian Federation ID2238- PZT ferroelectric capacitors: role of interfaces</p> <p>12:00-12:20 Alonso Hirata Flores Gustavo Center For Nanoscience and Nanotechnology-Unam, Mexico ID1985- Rare Earth-Doped Y3Al5O12 (YAG) Nanophosphors: Synthesis and Applications in Energy-Savings Devices and Nanomedicine</p> <p>12:20-12:40 Claudiu Filip National Institute for R&D of Isotopic and Molecular Technologies, Romania ID1982- Study of polydopamine strong adhesion by solid-state NMR</p>
	12:30-14:00	LUNCH	

	APMAS YUNUS EMRE 1	ENEFM ARISTO	APMAS & MEDOPTICS EFLATUN
PARALLEL SESSIONS 14:00-15:50	<p>Chairperson: Andrey Lipovskii</p> <p>14:00-14:30 Andrey Lipovskii (Invited speaker) Alferov University, Russian Federation ID2023- Second Harmonic Generation in Poled Glasses: Conventional Views and New Insights</p> <p>14:30-14:50 Alina Marinela Ionescu National Institute of Materials Physics, Romania ID1983- Superconductor/Ferromagnet Heterostructure YBa₂Cu₃O_{7-x}/CaRuO₃</p> <p>14:50-15:10 Melania Onea National Institute of Materials Physics, Romania ID1979- The influence of process parameters on structural and morphological properties of different metallic nanowires</p> <p>15:10-15:30 Paul Olaru AGIR_Univ.POLITEHNICA Bucuresti, Romania ID2130- The future technologically ironmaking-H₂ (Hydrogen)</p> <p>15:30-15:50 Mohamed Haythem Raouadi Crten, Tunisia ID2270- Hybrid pyroelectric and piezoelectric wind energy harvester using vortex generator for self-powered devices applications</p>	<p>Chairperson: Amela Ajanovic</p> <p>14:00-14:30 Amela Ajanovic (Invited speaker) Vienna University of Technology (TU WIEN), Austria ID416- Prospects for Renewable Fuels in Road Transport</p> <p>14:30-15:00 Jules Thibault (Invited speaker) University of Ottawa, Canada ID368- Optimisation of a biobutanol production process integrated with a mixed-matrix pervaporation membrane</p> <p>15:00-15:30 Salah Naman Universty of Zakho, Iraq (Invited speaker) ID437- Increasing the Efficiency of Sensitized Solar Cell by Doping Natural Flower Dyes of Mountain</p>	<p>Chairperson: Mariana Ionita</p> <p>14:00-14:20 Mariana Ionita University Politehnica of Bucharest, Romania ID2093- Challenges in graphene-based nanomaterials for advanced bone tissue regeneration</p> <p>14:20-14:40 Anca Aldea National Institute of Materials Physics, Romania ID2095- Metallized electropun polymeric fibers as a new platform for flexible (bio)sensors</p> <p>14:40-15:00 Vasily Milyutin Slovak Academy of Sciences, Slovakia ID2038- Soft magnetic composites FeSi/Al₂O₃-B₂O₃ with increased resonance frequency</p> <p>15:00-15:20 Daniela Oprea-Bratu National Institute of Materials Physics, Romania ID1981- Electrospun nanostructured scaffold for electrochemical sensing in cell cultures</p> <p>15:20-15:40 Eiman Al Munif Saudi Aramco, Saudi Arabia ID2254- Study of New Downhole Gas Liquid Separator Designs</p>
15:50-16:00	COFFEE BREAK		
16:00-18:00	<p>FOYER (Poster Session Area)</p> <p>Chairperson: A. Yavuz Oral</p> <p>POSTER SESSION II</p> <p>APMAS & ENEFM & MEDOPTICS</p>		

PROGRAM
TUESDAY, OCTOBER 18, 2022

PARALLEL SESSIONS 10:00-12:30	APMAS & MEDOPTICS YUNUS EMRE 1	ENEFM ARISTO
	Chairperson: Evgeny Barkanov	Chairperson: Aron Kneer
	10:00-10:30 Evgeny Barkanov <i>(Invited speaker)</i> Riga Technical University, Latvia ID2255- Effectiveness and productivity improvement of conventional pultrusion technology	10:00-10:30 Samy Yousef Kaunas University of Technology, Lithuania <i>(Invited speaker)</i> ID433- Modeling of catalytic pyrolysis of metallized food packaging plastics over zeolite catalyst
	10:30-10:50 Ekaterina Politova Russian Academy of Sciences, Russian Federation ID1978- Structure and ferroelectric properties of modified lead-free perovskite materials	10:30-11:00 Tugba Gurler University of Derby, UK <i>(Invited speaker)</i> ID414- Hybrid heat pump design strategies to obtain Net Zero Carbon Buildings
	10:50-11:10 Mihaela-Cristina Bunea National Institute of Materials Physics, Romania ID2076- Electrochemical characterization of screen-printed electrodes modified with conductive materials	11:00-11:20 Aron Kneer TinniT Technologies GmbH, Germany ID408- An Validated Dual-Porosity Approach to Predict Heat Storage in an Aquifer at a Groundwater Remediation Site
	11:10-11:30 Anastasia Parshina Northern (Arctic) Federal University named after M.V. Lomonosov, Russian Federation ID1969- Characteristics of arctic brown algae cellulose	11:20-11:40 Nelson Andres Bataan Peninsula State University, Philippines ID431- Assessment on SCADA Project Implementation of Electric Distribution Utility for Reliability and Safety in Electric Service
11:30-11:50 Tiberius Florian Frigioescu Romanian Research and Development Institute for Gas Turbines – COMOTI, Romania ID2168- Development of a new UAV concept and flight method to increase flight autonomy and maximum flight speed using wings and tilt motors	11:40-12:00 Gimi Aurelian Rimbu National Institute for R&D in Electrical Engineering ICPE-CA Bucharest, Romania ID388- Microbial fuel cells (MFCs) developments toward converting existing and future buildings to micro-power stations and micro-treatment plants	
11:50-12:10 Genene Tessema Mola University of KwaZulu-Natal, South Africa ID2127- Metal plasmon resonances induced enhanced photons harvesting in inverted thin film organic solar cell		
12:10-12:40 Horace Crogman California State University, US <i>(Invited speaker)</i> ID584- Using Laser Trapping for the Optimization of the Therapeutic Ratio		
12:30-13:30	LUNCH	
13:30-18:00	SOCIAL PROGRAM 13:30-18:00 GHOST TOWN & BLUE LAGOON <i>(Gathering at Congress registration desk)</i>	

PROGRAM WEDNESDAY, OCTOBER 19, 2022
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PARALLEL SESSIONS 10:00-11:00	APMAS & ENEFM & MEDOPTICS YUNUS EMRE 1
	<p>Chairperson: Natalia Tsyntsaru</p> <p>10:00-10:30 Natalia Tsyntsaru <i>(Invited speaker)</i> Vilnius University/Institute of Applied Physics, Lithuania ID2119- Design of materials based on electrodeposited iron group metals</p> <p>10:30-11:00 Vijaya Srinivasu Vallabhapurapu <i>(Invited speaker)</i> University of South Africa, South Africa ID1915- Low Field Microwave Absorption in Novel Spin Systems: Magnetics to Multiferroics</p>
12:00	Hotel Check Out

PROGRAM LEGEND DESCRIPTIONS	
ID-	APMAS 2022 oral presentations
ID-	ENEFM 2022 oral presentations
ID-	MEDOPTICS 2022 oral presentations

POSTER PROGRAM
SATURDAY, OCTOBER 15, 2022
16:15-18:00

FOYER (Poster Session Area)

Chairperson: A. Yavuz Oral

POSTER SESSION I

APMAS & ENEFM & MEDOPTICS

ID	Title	Contact Author
APMAS1808	Electrical properties investigation of synthetic polyisoprene composite layers for stretchable electronics	Douniazad Mezdour
APMAS1927	Effect of the laser processing parameters on the selective laser melting of TiC-Fe based cermets	Himanshu singh maurya
APMAS1957	Influence of 0.5 wt% SiC reinforcement on microstructural and thermal properties of SAC0307 solder joints	Agata Skwarek
APMAS1970	Physicochemical characteristics and activity of polyphenols of Arctic macrophytes	Konstantin Bogolitsyn
APMAS1972	Characterization of Al ₂ O ₃ /Ni/Ti composites fabricated via the slip casting method	Marcin Wachowski
APMAS1975	Effect of Organic Shell Nuts Addition on Physical Properties of Concrete	Marcin Małek
APMAS1986	Low temperature refrigerants based on Laves-phase pseudo-binary (Dy,Er)Ni ₂ intermetallic compounds	Daniel Gajda
APMAS1987	Polydopamine coatings morphology on spherical nanoparticles vs flat substrates	Diana Bogdan
APMAS1990	PAMAM dendrimer-encapsulated Ketoconazole for bioavailability enhancement	Ioana-Georgeta Grosu
APMAS1991	New crystalline forms with improved stability of representative statin drugs	Maria-Olimpia Miclaus
APMAS1994	Application of Scanning Electron Microscopy to Characterize Biocompatible Microplasma Spray Coatings with Controlled Porosity	Nadezhda Prokhorenkova
APMAS1995	Magnetron Sputtering of Cu-Ti Thin Films with Antibacterial Activity to Pseudomonas and Staphylococcus	Bagdat Azamatov
APMAS2000	Thermally stabilized LTCC substrates with paraffin-based phase-change materials	Beata Synkiewicz-Musialska
APMAS2008	Obtaining and Studying the Structural and Optical Properties of Nanodots Based on Graphene Oxide Derivatives by Laser Ablation	Evgeniya Seliverstova
APMAS2013	Setting damper parameters in dynamic structure calculations	Alexander Uzdin
APMAS2015	Engineering of Magnetic Properties of Co- rich Microwires by Post-processing	Valentina Zhukova
APMAS2019	Synthesis of antimicrobial polyurethane foam/NpAg nanocomposites involving the use of gamma ionizing radiations	Eduard-Marius Lungulescu
APMAS2022	Formation and electric characteristics of ultra-thin SiO ₂ by low-temperature direct oxidation using H ₂ O/H ₂ decomposition species	A. Izumi
APMAS2032	Features of interaction of nanosecond UV laser pulses with germanium single crystals of various crystallographic orientation	Vladimir Rogalin
APMAS2050	Effect of copper doping on sintering and dielectric properties of LiZnPO ₄ ceramics for terahertz applications	Beata Synkiewicz-Musialska
APMAS2066	Effect of boron dispersion phase content and heat treatment on the microstructure and mechanical properties of the Ni-B/B composite coatings	Katarzyna Skroban
APMAS2070	Microstructure and corrosion resistance of Ni-B matrix composite coatings with boron as a dispersion phase produced by electroless plating	Anna Gajewska-Midziątek
APMAS2101	Nanostructuring as a way to change the thin film layer's features	Aliaksandr Smirnov
APMAS2125	Hydrogels obtained by electron beam irradiation designed for mineral salts adsorption	Gabriela Craciun
APMAS2126	Swelling Studies on Hydrogels of Sodium Alginate-g-Acrylamide/Acrylic Acid Type for Agricultural Use	Elena Manaila
APMAS2134	Fluctuations of 1-D interstitial fluxes under cascade damage irradiation	Alexey Semenov
APMAS2139	Stability criterion of dendritic growth for a multicomponent melt with convection	Liubov Toropova
APMAS2170	Gaining Impermeability to Linear Handle Locks Used in Industrial Cabinets	Turgay Şerbet
APMAS2209	Effect of Cerium Oxide on the Catalytic Properties of FeNi/Al ₂ O ₃ in Methane Decomposition	Gaukhar Yergaziyeva
APMAS2224	Structural Synthesis, Geometry and Inverse Kinematics of a 3PRPS Type Parallel Manipulator	Zhumadil Baigunchekov
APMAS2228	Ameliorating Seed Germination and Seedling of Nano-Primed Wheat and Flax Seeds by the Using Seven Biogenic Metal-Based Nanoparticles	Meisam Zargar
APMAS2232	The impact of the crystal structure on the antimicrobial properties in Cu ²⁺ -doped b-Ca ₃ (PO ₄) ₂ -type phosphates	Dina Deyneko
APMAS2242	Diabetic patient PRP immobilized on PCL nanofibers regulate the endothelial cell activation for treatment DFU	Anastasiya Solovieva
APMAS2253	Development of Numerical Code for Advanced Modelling of ATF Chromium-Coated Zr-Based Cladding High Temperature Oxidation	Alexander Vasiliev
APMAS2286	Syntheses, Spectroscopic and Crystallographic Characterizations of the 2-Thiophenylmethylspiro(N/N)di/tetrachlorocyclotriphosphazene derivatives	Aytuğ Okumuş
APMAS2287	Syntheses, Spectroscopic and Crystallographic Characterizations of Coumarin and Piperidine Substituted 2-Thiophenylmethylspiro(N/N)cyclotriphosphazenes	Gamze Elmas

APMAS2296	Biodegradable materials of carbohydrate, lipid and protein	Agnieszka Folentarska
APMAS2020	An Application of the analytical solution of the small signal steady-state equations: Analysis of low-temperature field-dependent measurements for nc-Si:H sample	Rashad Badran
APMAS2029	Analysis of one-nucleon transfer reaction based on the diffraction model	Rashad Ibrahim Badran
APMAS2040	Influence of the spatial arrangement of products in the chamber of arc-PVD installations on the structure of the deposited coatings	Alexey Vereschaka
APMAS2041	Influence of tribological properties of Ti-TiN-(Ti,Al,Nb,Zr)N coating on the character of tool wear during steel turning	Alexey Vereschaka
APMAS2042	Influence of the properties of a multilayer nanostructured wear-resistant coating Ti-TiN-(Ti,Cr,Mo,Al)N on the wear resistance of a cutting tool when turning steel	Alexey Vereschaka
APMAS2054	Mesoporous silica particles for quick Methylene Blue dye removal from water	Timur Sh. Atabaev
APMAS2164	Magnetic Fe ₃ O ₄ -Ag nanocomposites for effective mercury removal from water	Timur Sh. Atabaev
APMAS2165	Ba (II)-doped mesoporous silica nanoparticles (SiO ₂ -Ba NPs) as a promising contrast agent for effective CT X-ray attenuation	Timur Sh. Atabaev
APMAS2143	Semiconductor core-shell nanowires: synthesis, characterization and photodetecting applications	Andreea Costas
APMAS2144	Bio-inspired fiber webs based on metal oxides by replicating eggshell membranes	Andreea Costas
APMAS2166	Thermal Cycling Setup for Testing and Inspecting Thermal Barrier Coatings Systems	Mihaela Raluca Condruz
APMAS2167	Microstructural and mechanical properties of plasma-sprayed thermal barrier coatings	Mihaela Raluca Condruz
APMAS2184	Additive manufacturing of all-copper elements with complicated geometry and high surface quality for microwave technologies	Mikhail Proyavin
APMAS2185	Study of 3d-printed materials for manufacturing of dielectric components for microwave devices	Mikhail Proyavin
APMAS2291	Design of a compact air-cooled solenoid for a low-voltage gyrotron	Mikhail Proyavin
APMAS2200	Investigation of wear resistance at room and elevated temperatures of samples with nanostructured multilayer coatings ZrHf-(Zr,Hf)N-(Zr,Hf,Cr,Mo,Al)N and Ti-TiN-(Ti,Cr,Al)N	Tatsiana Ramanouskaya
APMAS2201	Improving the corrosion resistance of titanium alloy samples by depositing protective nanostructured nitride coatings on their surface	Tatsiana Ramanouskaya
APMAS2202	Ensuring the best properties of protective coatings for titanium alloys by choosing the optimal parameters for thermal activation of the surface by self-sustained glow discharge plasma	Tatsiana Ramanouskaya
APMAS2259	Alginate-modified β -cyclodextrin nanoparticles- analysis, physicochemical properties	Kinga Koziel-Trabska
ENEFM307	The Green Transformation in Poland. Preliminary evaluation of Poland's wind energy industry potential	Olga Janikowska
ENEFM308	Recovery of PGMs from automobile catalysts as an important aspect to minimize the amount of hazardous waste from car industry	Natalia Generowicz
ENEFM330	Plasmon-enhanced solar cells sensitized with polymethine dyes	Niyazbek Ibrayev
ENEFM384	Analysis of Energy Consumption Data Quality in Smart Buildings for Evolution-Based Scheduling	Hyokyung Bahn
MEDOPTICS574	Viburnum opulus L extracts with gold nanoparticles as photosensitizers for PDT	Iliia Samusev

POSTER PROGRAM
MONDAY, OCTOBER 17, 2022
16:00-18:00

FOYER (Poster Session Area)

Chairperson: A. Yavuz Oral

POSTER SESSION II

APMAS & ENEFM & MEDOPTICS

ID	Title	Contact Author
APMAS2217	Preparation and characterization of a biodegradable hydrogel for female hygiene products	Vimla Paul
APMAS1966	Pair interatomic interactions in liquid Cu-Ag alloy	Nikolay Dubinin
APMAS2226	Graphene Nanoflake Fabrication by Laser Scribing of Polyimide for Use in Thermoelectric Applications	Vala Can Aşkan
APMAS2043	Features of the formation of microdroplet structures during the deposition of wear-resistant coatings by the arc-PVD method	Jury Bublikov
APMAS2044	Investigation of the nature of cracking and brittle fracture in nanostructured multilayer composite coatings based on the (Hf, Zr, Al) N system	Jury Bublikov
APMAS2115	Features of using cutting tools with Me-MeN-(Me,Mo,Al)N nanostructured coatings (Where Me = Zr, Ti, or Cr) in turning nickel alloy	Jury Bublikov
APMAS2263	Evaluation of microstructure and mechanical behavior of FDM 3D-printed objects derived from ceramic-polymer filament produced by extrusion	Anton Smirnov
APMAS2145	Magneto-optical resonances at the D line of Rb in a hot Cs buffer gas confined in a micrometric thickness optical cell	Christina Andreeva
APMAS2150	Coherent Magneto-Optical Resonances on The Potassium D2 Line in Modified Hanle Configuration for Magnetometry Applications	Sanka Gateva
APMAS2035	Measuring the concentration of heavy metals in some Syrian imported vegetables	Hasan Al-Khateeb
APMAS2025	The effects of molecular weight of polyvinylpyrrolidone (PVP) on the physicochemical properties of iron oxide nanoparticles (IONPs)	Fedda Alzoubi
APMAS2225	Effect of exposure to acidic food items on enamel characteristics: An ATR-FTIR study	Mohammad Anwar Alebrahim
APMAS2027	Measurement of L shell X-Ray fluorescence relative intensities for some selected elements at different excitation energies	Mohammed Alqadi
APMAS2272	Effect of Iodine Dopant on Photoisomerization Kinetics of Photoswitchable Thin Films Based on Acid Orange 7 Hosted in Polyethylene Oxide	Ali Hussain Omari Ahmad
APMAS1914	Bio Degradable ReRAM for Green Computing: Advances and Limitations	Sreedevi Vallabhapurapu
APMAS1929	Nonvolatile Resistive Switching Memory Based on Euphorbia Cotinifolia Plant Extract	Zolile Wiseman Dlamini
APMAS2243	Preparation of Piezoelectric PVDF-TrFE Thin Film for Wearable Electronics	Nursultan Turdakyn
APMAS2117	Processing methods of the measured values with passive dosimeter used in occupational exposure and dose assessment accuracy	Felicia Mihai
APMAS1973	Bio-Filter for Carbon Dioxide Capture and Valorization: A Sustainable Approach towards Environment, Health and Circular Economy	Fábio Ferreira
APMAS2153	Impedimetric biosensor based on reduced graphene oxide functionalized with gold nanoparticles for DNA detection	Elena Chiticaru
APMAS1936	An Electron Spin Resonance study of multiferroic perovskite BiFe _{0.5} Mn _{0.5} O ₃ displaying spontaneous magnetization reversal	Tebogo Mahule
APMAS2221	The effect of Yttrium doped Borophene for Hydrogen storage: A Density Functional Study	Kabelo Ledwaba
APMAS2154	Graphene oxide/Nitrocellulose non-covalent hybrid as solid phase for oligoDNA extraction from complex medium	Georgian Alin Toader
APMAS2307	Broad-band excitation of rare earths in glasses based on the energy transfer between host-glass and rare-earth ions	Petr Kostka
APMAS2308	NIR Laser Up-converted Ho ³⁺ /Tm ³⁺ /Yb ³⁺ Rare Earths Doped Tellurite glasses for 3D display applications	Petr Kostka
APMAS2059	Influence of adding Pb ²⁺ in various forms to TeO ₂ -ZnO glasses on electrical and dielectric properties	Petr Kostka & Ondrej Bosak
APMAS1964	Formation of Self-Assembled Organosilane Nanolayers on Al Surfaces by adsorption of alkoxy silanes on the metal and effect of the surface organosilicon layers on aluminum corrosion	Maxim Petrunin
APMAS2309	Humidity-to-electricity converters of continuous and intermittent action - the advantages and disadvantages of the moisture evaporation process	Sergiy Lyubchyk
APMAS2310	Innovative water-soluble phytomaterial inhibitors for Alzheimer's and Parkinson's diseases prevention	Sergiy Lyubchyk
APMAS1808	Electrical properties investigation of synthetic polyisoprene composite layers for stretchable electronics	Douniazad Mezdour
APMAS2087	A parametric study for boron extraction efficiency from aqueous medium using novel deep eutectic mixtures	Hadil Abu Khalifeh
APMAS1925	Approach to the solution according to creep theory	Naser Morina

APMAS2141	Investigation of Surface Treatment of the Non-Magnetic Phase of Dual-Phase Magnetic Material Based on 3% Silicon Steel by Nitriding in a Vacuum Medium in a Glow Discharge	Egor Pronin
ENEFM342	Synthesis of nanocarbon-based materials for supercapacitors application	Eugenijus Norkus
ENEFM325	Production of syngas by CO ₂ reduction through Reverse Water–Gas Shift (RWGS) reaction over catalytically-active molybdenum-based carbide, nitride, and composite nanowires	Aleš Mrzel
ENEFM320	Energy utilization of waste for the production of hydrogen	Jan Najser & Jaroslav Frantik
ENEFM318	Numerical study of hydrogen influence on burning velocity of propane-air mixtures	Codina Movileanu
ENEFM406	Method Of Sharing Losses in Transport for District Heating in Urban Areas	Ioan Bitir-Istrate
ENEFM419	UV-crosslinked lignin/PAN nanofiber separator for lithium-ion batteries	Sandugash Kalybekkyzy
ENEFM346	Testing and Sorting Retired EV batteries	Mohamed Ahmeid
ENEFM427	Intermolecular Interaction and Chemical Degradation of Hydroxide Ions with Various Quaternary Ammonium Head groups of Anion Exchange Membrane Studied via the DFT Calculations	Mirat Karibayev
MEDOPTICS581	Stereoscopic Depth Perception in Binocular Vision Corrected by Light Sword Lenses	Jan Bolek
MEDOPTICS582	Position Tolerance of Light Sword Lens in Presbyopia Correction	Karol Kakarenko

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