

## **APMAS 2024**

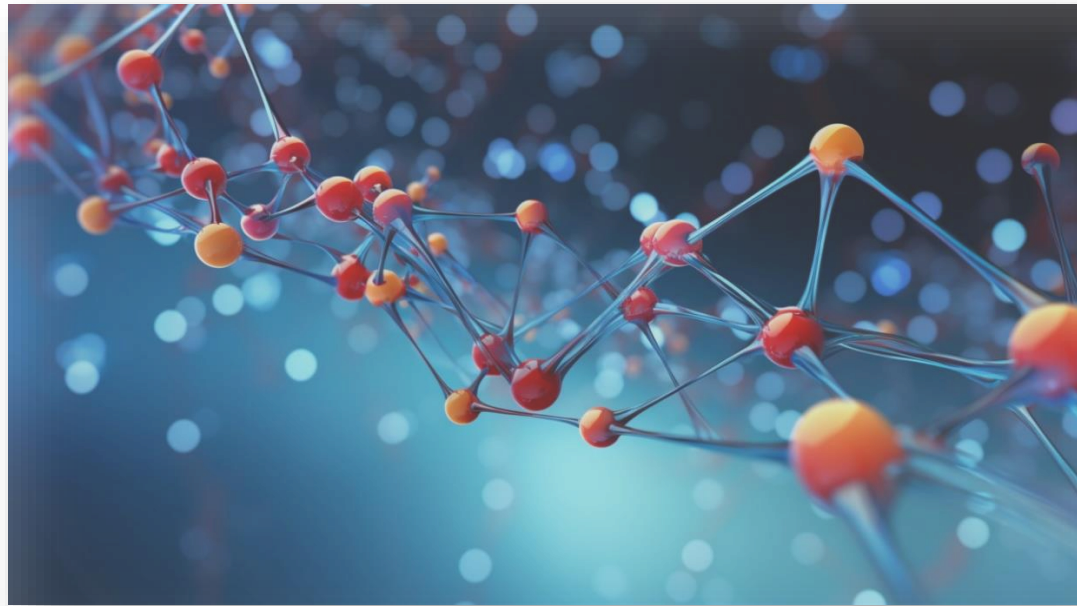
**14<sup>th</sup> International Advances in Applied  
Physics & Materials Science Congress &  
Exhibition**

## **ENEFM 2024**

**10<sup>th</sup> International Congress on Energy  
Efficiency and Energy Related Materials**

## **MEDOPTICS 2024**

**3<sup>rd</sup> International Conference on Medical  
Optics**



**PROGRAM TIMETABLE**

## Sponsors



## APMAS 2024

### 14<sup>th</sup> International Advances in Applied Physics & Materials Science Congress & Exhibition

## ENEFM 2024

### 10<sup>th</sup> International Congress on Energy Efficiency and Energy Related Materials

## MEDOPTICS 2024

### 3<sup>rd</sup> International Conference on Medical Optics

October 08-14, 2024

Liberty Hotels Lykia, Oludeniz  
MUGLA / TURKEY

#### PROGRAM SUNDAY, OCTOBER 06, 2024

14:00-16:30	<b>REGISTRATION FOR EARLY ARRIVALS</b> (14:00 Check-in)
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#### PROGRAM MONDAY, OCTOBER 07, 2024

9:00-16:30	<b>REGISTRATION</b> (14:00 Check-in)
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Everyday Tours	<b>SOCIAL PROGRAM</b> <ul style="list-style-type: none"><li>• <i>Saklıkent Jeep Safari</i></li><li>• <i>Paragliding in Oludeniz</i></li></ul>
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#### PROGRAM TUESDAY, OCTOBER 08, 2024

APMAS & ENEFM & MEDOPTICS

YUNUS EMRE 1

<b>PLENARY SESSION</b> 10:30-11:15	Chairperson: <b>A.Yavuz Oral</b>  <b>Alper Sahiner</b> Seton Hall University, USA  <b>“ID2782- Artificial Intelligence in Materials Science and Renewable Energy Research”</b>
11:15-11:45	<b>COFFEE BREAK</b>
<b>PLENARY SESSION</b> 11:45-12:30	Chairperson: <b>A.Yavuz Oral</b>  <b>Lech Tomasz Baczewski</b> Institute of Physics PAS, Poland  <b>“ID2597- Interaction between chirality and magnetism in hybrid nanostructures”</b>

12:30-14:00	<b>LUNCH</b>	
<b>PARALLEL SESSIONS</b> 14:00-15:00	<b>APMAS &amp; ENEFM &amp; MEDOPTICS</b>  <b>YUNUS EMRE 1</b>  Chairperson: <b>Arcady Zhukov</b>  14:00-14:30 <b>Arcady Zhukov</b> Univ. Basque Country, UPV/EHU San Sebastián, Spain <i>(invited speaker)</i> <b>ID2590-</b> Development of Amorphous Microwires with Graded Magnetic Anisotropy  14:30-15:00 <b>Andrei Mitru</b> Romanian Research and Development Institute for Gas Turbines COMOTI, Romania <i>(invited speaker)</i> <b>ID588-</b> Thermal and energy efficiency solutions for natural gas compression using industrial automation	<b>APMAS &amp; ENEFM &amp; MEDOPTICS</b>  <b>ARISTO</b>  Chairperson: <b>Pietro Galinetto</b>  14:00-14:30 <b>Pietro Galinetto</b> University of Pavia, Italy <i>(invited speaker)</i> <b>ID2695-</b> SERS performances of PDA-coated silver and gold nano-objects for emerging pollutants monitoring  14:30-14:50 <b>Yonggyu Lee</b> Korea Construction Equipment Technology Institute, Korea, Republic Of <b>ID2772-</b> A Study on the Development and Validation of an Integrated Steering and Driving Dynamics Model for an MR-Based K9 Howitzer Firing Simulator
15:00-15:30	<b>COFFEE BREAK</b>	
<b>PARALLEL SESSIONS</b> 15:30-17:40	<b>APMAS &amp; MEDOPTICS</b>  <b>YUNUS EMRE 1</b>  Chairperson: <b>Vijaya Srinivasu Vallabhapurapu</b>  15:30-16:00 <b>Vijaya Srinivasu Vallabhapurapu</b> University of South Africa, South Africa <i>(invited speaker)</i> <b>ID2603-</b> Resistive Switching Memory (ReRAM) through biomaterials  16:00-16:30 <b>Sandra Lepak-Kuc</b> Warsaw University of Technology, Poland <i>(invited speaker)</i> <b>ID2770-</b> Eco-Friendly Carbon-Based Conductive Composites: Shaping the Future of Biosensors and Beyond  16:30-17:00 <b>Gabriel P. Potirniche</b> University of Idaho, USA <i>(invited speaker)</i>	<b>ENEFM</b>  <b>ARISTO</b>  Chairperson: <b>Marian Gaiceanu</b>  15:30-16:00 <b>Marian Gaiceanu</b> Dunarea de Jos University of Galati, Romania <i>(invited speaker)</i> <b>ID603-</b> SHUNT ACTIVE POWER FILTER AS ENERGY EFFICIENCY SOLUTION  16:00-16:30 <b>Ashton Swartbooi</b> CSIR, South Africa <i>(invited speaker)</i> <b>ID602-</b> Thermo-catalytic decomposition of methane to hydrogen and carbons – kinetic studies for a novel perovskite catalyst  16:30-16:50 <b>Timur Atabaev</b> Nazarbayev University, Kazakhstan <b>ID563-</b> Deposition of Luminescent and Hydrophobic Coating for Efficiency Improvement of Si Solar Cells

	<p><b>ID2578-</b> Experimental and Computational Study of Fatigue Crack Growth in Austenitic Stainless-Steel Alloy 709 at Elevated Temperatures</p> <p>17:00-17:20  <b>Seda KOL</b>  Gebze Technical University, Turkiye</p> <p><b>ID614-</b> Characterization of DNT/TNT Specific Binding Peptides Immobilized on Laser-Induced Graphene</p>	<p>16:50-17:10  <b>Fatmanur KOCAMAN KABİL</b>  Gebze Technical University, Turkiye</p> <p><b>ID604-</b> PEDOT:PSS /LIG Composites: Preparation and Thermoelectric Characterization</p> <p>17:10-17:40  <b>Mohamed Ahmeid</b>  Newcastle University, UK  <i>(invited speaker)</i></p> <p><b>ID592-</b> EV Battery Sustainability: Diagnostic Techniques, Safety Challenges, and Circular Economy Solutions</p>
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<p style="text-align: center;"><b>PROGRAM</b>  <b>WEDNESDAY, OCTOBER 09, 2024</b></p>	
<p style="text-align: center;">APMAS &amp; ENEFM &amp; MEDOPTICS</p>	
<p style="text-align: center;">YUNUS EMRE 1</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>PLENARY SESSION</b> 10:00-10:45</p>	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Mohamed Naceur BELGACEM</b></p> <p style="text-align: center;">University Grenoble Alpes, France</p> <p style="text-align: center;">“<b>ID2664-</b> Biomass conversion: The raw material of tomorrow”</p>
<p>10:45-11:15</p>	<p><b>COFFEE BREAK</b></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>PARALLEL SESSIONS</b> 11:15-12:25</p>	<p style="text-align: center;">APMAS &amp; ENEFM &amp; MEDOPTICS</p> <p style="text-align: center;">YUNUS EMRE 1</p> <p>Chairperson: <b>Balázs Illés</b></p> <p>11:15-11:45  <b>Balázs Illés</b>  Budapest University of Technology and Economics, Hungary  <i>(invited speaker)</i></p> <p><b>ID2602-</b> Properties of Sn99Ag0.3Cu0.7-(ZrO<sub>2</sub>/CuO/TiO<sub>2</sub>) composite solder joints</p> <p>11:45-12:05  <b>Erdem Sahin</b>  Mugla University, Turkey</p> <p><b>ID2691-</b> Cementitious coatings on magnesium alloys for in vivo passivation</p> <p>12:05-12:25  <b>Chengcheng Wang</b>  China Nuclear Power Engineering Co. Ltd, China</p> <p><b>ID2651-</b> New Requirements of Defense in Depth and Extension of Its Application</p>
<p>12:35-13:15</p>	<p><b>LUNCH</b></p>

13:15-18:00	<p><b>SOCIAL PROGRAM</b></p> <p>13:15-18:00 <b>GHOST TOWN &amp; BLUE LAGOON</b></p> <p>(Gathering at Congress registration desk)</p>
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<p><b>PROGRAM</b></p> <p><b>THURSDAY, OCTOBER 10, 2024</b></p>
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<p>APMAS &amp; <b>ENEFM</b> &amp; <b>MEDOPTICS</b></p>
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<p><b>YUNUS EMRE 1</b></p>
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<b>PLENARY SESSION</b> 10:00-10:45	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Ahmed Abdala</b></p> <p style="text-align: center;">Hamad Bin Khalifa University, Doha, Qatar</p> <p style="text-align: center;"><b>“ID553- High-performance Membranes for Energy Efficient Air cooling”</b></p>
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10:45-11:15	<b>COFFEE BREAK</b>
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<b>PARALLEL SESSIONS</b> 11:15-12:45	<p><b>APMAS &amp; ENEFM</b></p> <p><b>YUNUS EMRE 1</b></p> <p>Chairperson: <b>Konstantin Vorotilov</b></p> <p>11:15-11:45 <b>Konstantin Vorotilov</b> RTU MIREA, Russian Federation (invited speaker) <b>ID2640- THIN POROUS FILMS: HOW TO CONTROL MICROSTRUCTURE AND ELECTRICAL PROPERTIES?</b></p> <p>11:45-12:15 <b>Juris Blums</b> Riga Technical University, Latvia (invited speaker) <b>ID594- Developing key components of energy-independent wearables: human body energy harvesting and self-powered sensors</b></p> <p>12:15-12:45 <b>Alexander Sigov</b> MIREA - Russian Technological University, Russian Federation (invited speaker) <b>ID2644-PHYSICAL PHENOMENA IN PZT THIN FILMS</b></p>	<p><b>MEDOPTICS</b></p> <p><b>ARISTO</b></p> <p>Chairperson: <b>Ersin Kayahan</b></p> <p>11:15-11:45 <b>Alexey V. Feofanov</b> Lomonosov Moscow State University, Russian Federation (invited speaker) <b>ID611- Nanobiophotonics: decoding molecular interactions in chromatin</b></p> <p>11:45-12:15 <b>Horace Crogman</b> California State University Dominguez Hills, USA (invited speaker) <b>ID606- Epigallocatechin Gallate (EGCG) Mitigates the Effects of Camptothecin-induced Oxidative Stress on Bone-like Cancer Cells (UMR 106-01 BSP)</b></p> <p>12:15-12:45 <b>M.L. Thakur</b> Sidney Kimmel Cancer Center, USA (invited speaker) <b>ID612- Biophotonic imaging for noninvasive detection and therapy of oncologic diseases</b></p>
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12:30-14:00	<b>LUNCH</b>
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<b>PARALLEL SESSIONS</b> 14:00-16.10	<b>APMAS &amp; ENEFM</b>  <b>YUNUS EMRE 1</b>  Chairperson: <b>Amela Ajanovic</b>  14:00-14:30 <b>Amela Ajanovic</b> Vienna University of Technology - TU WIEN, Austria <i>(invited speaker)</i> <b>ID554-</b> Techno-economic analysis of hydrogen production and transportation  14:30-15:00 <b>Eugenia Rossi di Schio</b> Alma Mater Studiorum - University of Bologna, Italy <i>(invited speaker)</i> <b>ID568-</b> The reuse of end-of-life Home Materials (EoLHM) in buildings' energy harvesting  15:00-15:20 <b>Qianwen Liu</b> China Nuclear Power Engineering Co., Ltd, China <b>ID559-</b> Risk-Informed Defense-in-depth Strategy for Nuclear Power Plant  15:20-15:40 <b>Vanni Lughi</b> University of Trieste, Italy <b>ID562-</b> Recyclable Composites Based on Natural and Waste Materials for Thermal Insulation Applications: An Example Of "Deep Materials Sustainability"  15:40-16:10 <b>Vladimir Krasnov</b> Stockholm University, Sweden <i>(invited speaker)</i> <b>ID597-</b> Perspectives of energy-efficient superconducting computer	<b>MEDOPTICS</b>  <b>ARISTO</b>  Chairperson: <b>Ersin Kayahan</b>  14:00-14:30 <b>Christos Boutopoulos</b> University of Montreal, Canada <i>(invited speaker)</i> <b>ID607-</b> Improving the safety and precision of eye surgery interventions with "smart" fiber-based OCT systems  14:30-15:00 <b>NICOLA DALDOSSO</b> University of Verona, Italy <i>(invited speaker)</i> <b>ID609-</b> Light emitting porous nano-silicon as a multimodal platform for theranostics  15:00-15:30 <b>Kostadinka Bizheva</b> University of Waterloo, Canada <i>(invited speaker)</i> <b>ID608-</b> Line-Scan Optical coherence tomography for in-vivo cellular resolution imaging of the human cornea and limbus
	16:10-16:40 <b>COFFEE BREAK</b>	
	16:40-17:40	<b>FOYER (Poster Session Area)</b>  Chairperson: A. Yavuz Oral  <b>POSTER SESSION- I</b>  <b>APMAS &amp; ENEFM &amp; MEDOPTICS</b>

<b>PROGRAM</b> <b>FRIDAY, OCTOBER 11, 2024</b>	
<b>APMAS &amp; ENEFM &amp; MEDOPTICS</b>	
	<b>YUNUS EMRE 1</b>
<b>PLENARY SESSION</b> 10:30-11:15	Chairperson: <b>A.Yavuz Oral</b>  <b>Dominik Zumbühl</b> University of Basel and NCCR SPIN, Switzerland

	<b>"ID2659- Quantum Computing with Silicon Spins"</b>	
11:15-11:45	<b>COFFEE BREAK</b>	
<b>PLENARY SESSION</b> 11:45-12:30	<p>Chairperson: <b>Ersin Kayahan</b></p> <p style="text-align: center;"><b>Meltem Izzetoglu</b> Villanova University, USA</p> <p style="text-align: center;"><b>"ID613- Multimodal Diffuse Optical Methods for The Assessment of Brain Function and Injury"</b></p>	
12:30-14:00	<b>LUNCH</b>	
<b>PARALLEL SESSIONS</b> 14:00-15:00	<b>APMAS &amp; ENEFM &amp; MEDOPTICS</b> <b>YUNUS EMRE 1</b>	
	<p>Chairperson: <b>Bing Guo</b></p> <p>14:00-14:30 <b>Bing Guo</b> Texas A&amp;M University at Qatar, Qatar <i>(invited speaker)</i> <b>ID585-</b> Solar photovoltaic soiling loss: quantification, measurement and monitoring</p> <p>14:30-15:00 <b>Satoshi Kokado</b> Shizuoka University, Japan <i>(invited speaker)</i> <b>ID2593-</b> Theoretical study on in-plane, out-of-plane, and transverse anisotropic magnetoresistance effects for ferromagnetic films</p>	
15:00-15:30	<b>COFFEE BREAK</b>	
<b>PARALLEL SESSIONS</b> 15:30-17:00	<b>APMAS</b> <b>YUNUS EMRE 1</b>	<b>ENEFM</b> <b>ARISTO</b>
	<p>Chairperson: <b>Wael Alnahhal</b></p> <p>15:30-16:00 <b>Wael Alnahhal</b> Qatar University, Qatar <i>(invited speaker)</i> <b>ID2773-</b> Mechanical Properties of Recycled Aggregate Concrete Incorporating Recycled Concrete Powder</p> <p>16:00-16:20 <b>Ngonidzashe Masunga</b> University of South Africa, South Africa <b>ID2733-</b> Looking at photocatalysis from a different perspective: considering hybridisation of low energy waves with visible light for organic pollutant removal</p> <p>16:20-16:40 <b>Jamil Renno</b> Qatar University, Qatar <b>ID2573-</b> Base Excitation and Finite Element Simulation for Assessing the Risk of Acoustic Induced Fatigue</p> <p>16:40-17:00 <b>Gan Redhi</b> Durban University of Technology, South Africa <b>ID2650-</b> Application of Ionic liquid-multi walled carbon nanotubes-l-lysine modified glassy carbon electrode for detection of prednisolone</p>	<p>Chairperson: <b>Giuseppe Forte</b></p> <p>15:30-16:00 <b>Giuseppe Forte</b> University of Catania, Italy <i>(invited speaker)</i> <b>ID599-</b> Enhancing Dye-sensitized solar cells efficiency: insights from Density Functional Theory</p> <p>16:00-16:30 <b>Ladislav Kavan</b> J. Heyrovsky Institute of Physical Chemistry, Czech Republic <i>(invited speaker)</i> <b>ID598-</b> Work Function and Photo/electrochemistry of Oxide Semiconductors (SnO<sub>2</sub> TiO<sub>2</sub> and ZnO)</p> <p>16:30-17:00 <b>Alexandra Ushakova</b> INEOS RAS, Russian Federation Sergo Ordzhonikidze Russian State University for Geological Prospecting, Russian Federation <i>(invited speaker)</i> <b>ID601-</b> Novel liquids for increasing the mobility of aqueous solutions for low permeable and ultra-low permeable oil formations</p>



PROGRAM SATURDAY, OCTOBER 12, 2024	
APMAS	
YUNUS EMRE 1	
PARALLEL SESSIONS 10:30-12:20	<p>Chairperson: <b>Emil Babić</b></p> <p>10:30-11:00 <b>Emil Babić</b> University of Zagreb, Croatia <i>(invited speaker)</i> <b>ID2668-</b> High entropy alloys: some prospects and problems</p> <p>11:00-11:30 <b>Carmen Tuca</b> National Institute for R&amp;D in Physics and Nuclear Engineering, Romania <i>(invited speaker)</i> <b>ID2609-</b> Assessment of Soil Activity Levels from Decommissioning Area of A VVR-S Nuclear Research Reactor</p> <p>11:30-11:50 <b>Miroslav Cieslar</b> Charles University, Czech Republic <b>ID2674-</b> Self propagating high temperature synthesis in Ti-Ni core-shell nanoparticles</p> <p>11:50-12:20 <b>Sergei Katsyuba</b> Kazan Scientific Center of Russian Academy of Sciences, Russian Federation <i>(invited speaker)</i> <b>ID2779-</b> Self-assembly formation of water-soluble nanoparticles explored by computational techniques</p>
12:30-13:15	<b>LUNCH</b>
13:15-18:00	<p><b><i>SOCIAL PROGRAM</i></b></p> <p><b><i>13:15-18:00 THE BOAT CRUISE AROUND EXCELLENT BAYS OF BLUE LAGOON &amp; VISIT TO St. NICHOLAS ISLAND</i></b></p> <p><i>(Gathering at Congress registration desk)</i></p>

PROGRAM SUNDAY, OCTOBER 13, 2024	
APMAS	
YUNUS EMRE 1	
PLENARY SESSION 10:30-11:15	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Janusz Lewinski</b> Polish Academy of Sciences, Poland</p> <p style="text-align: center;"><b>“ID2767-</b> Effect of preparation methodologies on the properties of ZnO QDs and metal halide perovskites”</p>
11:15-11:45	<b>COFFEE BREAK</b>

<b>PARALLEL SESSIONS</b> 11:45-12:35	Chairperson: <b>Victor Pavlov</b>  11:45-12:15 <b>Victor Pavlov</b> Ioffe Institute, RAS, Russian Federation <i>(invited speaker)</i> <b>ID2731- ULTRAFAST PHOTO-INDUCED PHENOMENA IN EUROPIUM CHALCOGENIDES</b>  12:15-12:35 <b>Michał Zieliński</b> Nicolaus Copernicus University, Poland <b>ID2576- Exploiting underlying crystal lattice for efficient computation of multi-million atoms nanostructures</b>
12:30-14:00	<b>LUNCH</b>

<b>PARALLEL SESSIONS</b> 14:00-15:20	<b>APMAS</b>  <b>YUNUS EMRE 1</b>
	Chairperson: <b>Wolfgang Werner</b>  14:00-14:30 <b>Wolfgang Werner</b> TU Wien, Austria <i>(invited speaker)</i> <b>ID2774- Electron Beam Attenuation and Energy Dissipation between 0 eV and Relativistic Energies</b>  14:30-15.00 <b>Alessandra Bellissimo</b> Technische Universität Wien, Austria <i>(invited speaker)</i> <b>ID2778- Electron Emission from Graphitic Surfaces in the Low-Energy Regime</b>  15:00-15:20 <b>Mara-Georgiana Popovici</b> ELI-NP, Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering, Romania <b>ID2717-Radiation protection and dosimetry in high power laser-driven experiments</b>
15:30-16:00	<b>COFFEE BREAK</b>
16:00-17:00	<b>FOYER (Poster Session Area)</b>  Chairperson: A. Yavuz Oral  <b>POSTER SESSION- II</b>  <b>APMAS</b>

<b>PROGRAM</b> <b>MONDAY, OCTOBER 14, 2024</b>
<b>APMAS</b>
<b>YUNUS EMRE 1</b>

<b>PARALLEL SESSIONS 10:10-12:00</b>	<p><i>Chairperson: Eduard Gevorkyan</i></p> <p>10:10-10:30  <b>Mehmet Emre Aköz</b>  Gebze Technical University, Turkiye  <b>ID2780-</b> Perpendicular Magnetic Anisotropy on Co/Pt Multilayers with Ru Spacers as TMR Sensor Applications</p>
	<p>10:30-11:00  <b>Eduard Gevorkyan</b>  Moscow Witte University, Russia  <i>(invited speaker)</i>  <b>ID2605-</b> On the Theory of Transition Radiation of a Charge in a Waveguide Filled with an Anisotropic Magnetodielectric Medium</p>
	<p>11:00-11:30  <b>Svetoslav Kuzmichev</b>  Lomonosov Moscow State University, Russian Federation  <i>(invited speaker)</i>  <b>ID2629-</b> Direct observation of Spin Exciton in Superconducting Oxypnictides by Andreev Spectroscopy</p>
	<p>11:30-12:00  <b>Tatiana Kuzmicheva</b>  Lebedev Physical Institute RAS, Russian Federation  <i>(invited speaker)</i>  <b>ID2637-</b> Spectroscopic Study of <math>K0.8Fe1.7(Se,S)2</math> Selenides in the Superconducting and the Normal State</p>
12:00	<b>Hotel Check Out</b>

<b>PROGRAM LEGEND DESCRIPTIONS</b>	
<b>ID-</b>	<b>APMAS 2024 oral presentations</b>
<b>ID-</b>	<b>ENEFM 2024 oral presentations</b>
<b>ID-</b>	<b>MEDOPTICS 2024 oral presentations</b>

## POSTER PROGRAM

**THURSDAY, OCTOBER 10, 2024**

**16:40-17:40**

### FOYER (Poster Session Area)

Chairperson: A. Yavuz Oral

### POSTER SESSION- I

### APMAS & ENEFM & MEDOPTICS

ID	TITLE	CONTACT AUTHOR
2591	TUNING OF SECOND ORDER PHASE TRANSITION OF NIMNGA HEUSLER-TYPE GLASS-COATED MICROWIRES.	Valentina Zhukova
2604	Influence of SAC0307-Al <sub>2</sub> O <sub>3</sub> composite solder joints on thermal parameters of power electronics devices	Agata Skwarek
2625	Two-dimensional Valleytronic Materials: From Principles to Device Applications	Sake Wang
2630	Mesoporous SiO <sub>2</sub> -TiO <sub>2</sub> Submicron Particles With High Photocatalytic Efficiency for Degradation of Organic Substances Under Solar and Artificial Light	Kuralay Rustembekkyzy
2623	Electronic Lock with Remote Control	Raşit Önver & Ibrahim Alpay
2737	Evaluation of Mare's Milk-Derived Exosomes as Novel Therapeutic Carriers: Comparative Isolation Techniques and Quercetin Bioavailability Enhancement	Shynggys Sergazy
2751	Modeling the operation of a gas compressor station to minimize fuel costs for protection against surge zone	Dinara Zhussupova
2600	Study and Characterization of new dosimeter MAGIC-Glytaraldehyde	Sounila Brahimi Moussa
2587	Diffusion mechanisms in superabsorbent hybrid hydrogels structures usable as water and nutrients carriers/releasers	Gabriela Craciun
2633	Functional borates and fluoride borates and their high-pressure modifications	Tatyana Bekker
2680	Improved Stability and Endurance in ReRAM using Novel Organic-Inorganic Tandem Structure for Synaptic Computing Applications	Sachin Desarada
2652	Doping effect on ferroelectric/piezoelectric properties of Nb-modified BiFeO <sub>3</sub> -BaTiO <sub>3</sub> ceramics	myongho kim
2643	Plastic deformation of bronze under water by laser radiation	Viacheslav Zheleznov
2724	Synthesis of 1-(2,4,6-trimethylpyridin-3-yl)ethan-1-ol and study of its hemorheological and antifibrotic activity	Alexander Gulyayev
2579	The Directional Formation and Anti-corrosion Action of Self-Assembled Siloxane Nanolayers on Copper Surface	Maxim Petrunin
2681	Chitosan based new ReRAMs for Green Computing	SREEDEVI VALLABHAPURAPU
2729	Measuring the Concentration of Heavy Metals and Radionuclide in the Soil of Jordan Petroleum Refinery and Al-Hussein Thermal Station, Zarqa City, Jordan	Hasan Al-Khateeb

<b>2726</b>	Measurement of L shell X-Ray fluorescence relative intensities of elements with atomic numbers 62 to 75 at 13.5 keV using synchrotron radiation	M. Alqadi
<b>2742</b>	In-Vitro Effectiveness of Photodynamic Therapy on RBCs with Encapsulated Rose bengali by Silica Nanoparticles	Khaled aljarrah
<b>2727</b>	Synthesis and characterization of nanoparticle materials based on zinc oxide, silver, and tin as electrocatalytic towards the azo dyes	Fedda Alzoubi
<b>2722</b>	Observations of the novel low field microwave absorption in $Zn_xCo_{1-x}Fe_{2-x}Al_xO_4$ ferrites	Tebogo Sfiso Mahule
<b>558</b>	Study of oxygen reduction and evolution on palladium-modified cobalt-phosphorus and cobalt-iron-phosphorus coatings	Loreta Tamasauskaite-Tamasiunaite
<b>557</b>	Cobalt-iron-phosphorus catalysts for hydrogen and oxygen evolution	Eugenijus Norkus
<b>570</b>	ICT FOR SMART AND ENERGY EFFICIENT BUILDINGS	Dimitar Karastoyanov
<b>572</b>	NEW ANTHRONE DERIVATIVES AS LIGHT EMITTING SUBSTANCES	Jelena Kirilova
<b>580</b>	Development of On-Board Charger and Solar inverter using Power Module based on Wide Bandgap	Yong-Su Noh
<b>581</b>	Phase Shift Modulation Method for Low Voltage-Light Load Area of Load Resonant Converter with Wide Output Voltage	Dongmyoung Joo
<b>560</b>	STUDY OF CONTAMINANTS PRESENT IN INDUSTRIAL WATER USED FOR COOLING GASES IN THE PYROLYSIS PROCESS	Sergejs Osipovs
<b>605</b>	UV-Vis-NIR Absorption Spectroscopy as a Supporting Technique in Understanding the Electrical Conductivity Behavior of the PEDOT:PSS Films	Bahar Şölen AKDEMİR YILMAZ

**POSTER PROGRAM**  
**SUNDAY, OCTOBER 13, 2024**  
**16:00-17:00**

**FOYER (Poster Session Area)**

Chairperson: A. Yavuz Oral

**POSTER SESSION- II**

**APMAS**

ID	TITLE	CONTACT AUTHOR
2607	Evaluation of hardness and composition of SiCN films deposited by HWCVD method	A. Izumi
2594	Covalent Organic Frameworks for Homojunction SMOSCs and Electrode Materials	Ion grosu
2667	Synthesis of metal-organic framework compounds on PET track-etched membranes for CO2 capture	Ilya Korolkov
2669	Skin dose assessment for patients undergoing medical radiography by LiF:Cu,Mg,P, BeOSL and halide film passive dosimeter systems	Felicia Mihai
2619	Novel 9,9'-Dispiro- and Trispirobifluorene Building Blocks for the Access to Smart Supramolecular and Covalent Organic Frameworks	Ioana Georgeta Grosu
2677	Towards the theory of crystal growth ahead of the moving solid-liquid phase interface: A U-shaped anomalous behaviour of the crystallization velocity of melt undercooling	Liubov Toropova
2592	Nonvolatile memory cells based on thin film disorder chalcogenide semiconductors	Aliaksandr Smirnov
2750	BENZENE OXIDATION OVER Pt LOADED ON FLY ASH ZEOLITE X	Yuri Kalvachev
2598	Picosecond Ultrasonic Photoacoustic Emitter Based on Graphene-Decorated Gold Nanoparticles	Aleš Mrzel
2608	Evaluation of tritium release from contaminated HEPA filters in extreme conditions	Cristian Postolache
2572	Viscoelastic response of sugar beet root tissue to mechanical loading	Krzysztof Gołacki
2627	Manufacturing of biocompatible coatings for medical implants using robotic microplasma spraying: ensuring coating uniform thickness and specified porosity	Alexander Krasavin
2639	Additive robotic microplasma spraying of multilayer bioactive coatings	Albina Kadyroldina
2647	In vitro testing of microplasma sprayed titanium and hydroxyapatite coatings on Ti6Al4V alloy substrates: the effect of materials and spraying parameters on coating bioactivity and corrosion resistance	Yuliya Safarova (Yantsen)
2626	Enhancing microbial resistance of additive manufactured titanium implants by magnetron sputtering of Nb-Cu and Ta-Cu coatings	Bagdat Azamatov
2638	Manufacturing and research of Ta and Ta-Cu bioactive and antimicrobial coatings of titanium endoprosthesis implants	Darya Alontseva
2641	Recycling of waste aluminium foil as a low-carbon feedstock substitute	Jan Najser

<b>2697</b>	Harnessing PEGylated PLGA Nanoparticles for Drug Delivery of Cdc42 Inhibitor: Unveiling Anti-Cancer Efficacy in Colon Cancer Cell Lines	Aislu Yermekova
<b>2713</b>	Development of 3D coffee ring structure on soft compliant PDMS substrate and interplaying factors	Maryam Jalali
<b>2698</b>	A study of in vitro cytotoxicity of fullerene- and fullerenol-dihydroquercetine complexes: possible implications for the treatment of neurodegenerative disorders	Sholpan Askarova
<b>2743</b>	ANTI-ICING PERFORMANCE OF TRANSPARENT EPOXY-BASED NANOCOMPOSITE COATINGS	Bartłomiej Przybyszewski
<b>2761</b>	A Compositional Engineering and Phase Transitions of DMAXFA1-xPb3 Perovskites	Iwona Justyniak
<b>2723</b>	Synthesis, molecular docking and in vitro $\alpha$ -glucosidase inhibition potential of novel thiourea derivatives based on 3-aminopyridin-2(1H)-ones	Zarina Shulgau
<b>2699</b>	Metals and Antibiotics as Aqueous Sequestration Targets for Magnetic Polyamidoamine-Grafted SBA-15	Fanyana Mtunzi
<b>2739</b>	ADSORPTION OF HEAVY METALS FROM AQUEOUS SOLUTIONS BY MORINGA OLEIFERA PODS AND FELDSPAR CLAY COMPOSITE	Mokete Phele
<b>2783</b>	PERFORMING A N-TYPE DOPING OF THE LASER-INDUCED GRAPHENE USING UREA AND Its CHARACTERIZATION	Vala Can Aşkan
<b>2679</b>	Validation of a UV-VIS-NIR Spectrophotometric Method for Determination of Sodium Benzoate in Water	Abdulrahman Alzahrani

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