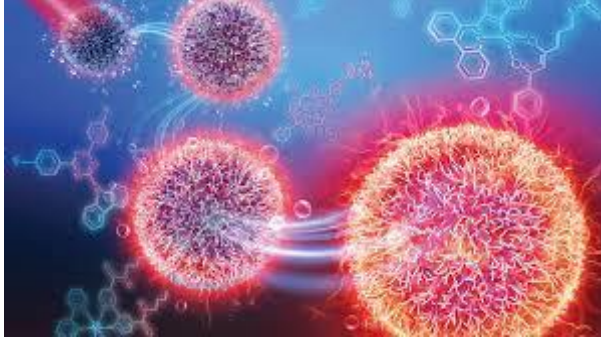
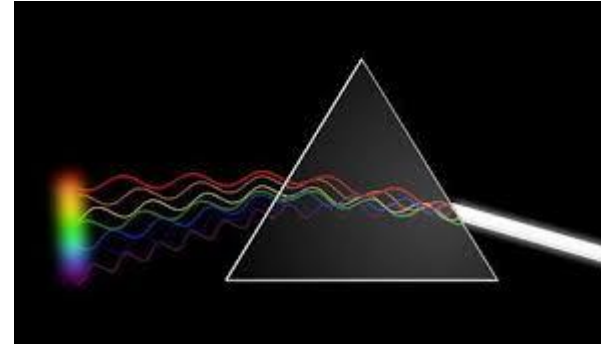
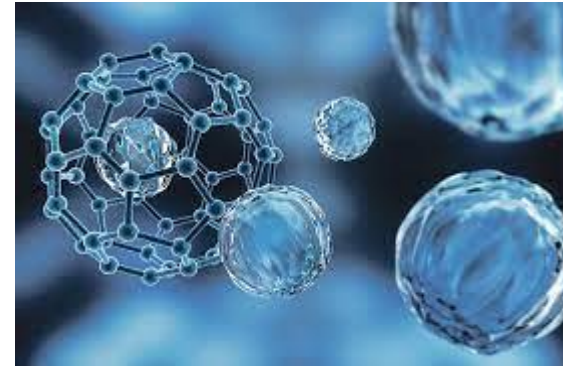


**INTERM 2024**  
**11<sup>th</sup> INTERNATIONAL CONGRESS ON**  
**MICROSCOPY & SPECTROSCOPY**



**BIOMATSEN 2024**  
**9<sup>th</sup> INTERNATIONAL CONGRESS ON**  
**BIOMATERIALS & BIOSENSORS**

**NANOMACH 2024**  
**5<sup>th</sup> INTERNATIONAL CONFERENCE ON**  
**NANOMATERIALS,**  
**NANOFABRICATION AND**  
**NANOCHARACTERIZATION**



**INTERPHOTONICS 2024**  
**6<sup>th</sup> INTERNATIONAL CONFERENCE**  
**ON PHOTONICS RESEARCH**

**SEMIMATER 2024**  
**SEMICONDUCTOR MATERIALS &**  
**DEVICE PHYSICS CONFERENCE**



**PROGRAM TIMETABLE**

**INTERM 2024**  
**11<sup>th</sup> INTERNATIONAL CONGRESS ON MICROSCOPY &  
SPECTROSCOPY**

**BIOMATSEN 2024**  
**9<sup>th</sup> INTERNATIONAL CONGRESS ON BIOMATERIALS &  
BIOSENSORS**

**NANOMACH 2024**  
**5<sup>th</sup> INTERNATIONAL CONFERENCE ON NANOMATERIALS,  
NANOFABRICATION AND NANOCHARACTERIZATION**

**INTERPHOTONICS 2024**  
**6<sup>th</sup> INTERNATIONAL CONFERENCE ON PHOTONICS  
RESEARCH**

**SEMIMATER 2024**  
**SEMICONDUCTOR MATERIALS & DEVICE PHYSICS  
CONFERENCE**

**APRIL 18-24, 2024**

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

<b>PROGRAM</b> <b>TUESDAY, APRIL 16, 2024</b>	
<b>14:00-16:30</b>	<b>REGISTRATION FOR EARLY ARRIVALS</b> <b>(14:00 Check-in)</b>

<b>PROGRAM</b> <b>WEDNESDAY, APRIL 17, 2024</b>	
<b>9:00-16:30</b>	<b>REGISTRATION</b> <b>(14:00 Check-in)</b>

Everyday Tours	<p><b>SOCIAL PROGRAM</b></p> <ul style="list-style-type: none"> <li>• <b>Saklikent Jeep Safari</b></li> <li>• <b>Paragliding in Oludeniz</b></li> </ul>
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<b>PROGRAM</b> <b>THURSDAY, APRIL 18, 2024</b>	
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER</b>	
<b>YUNUS EMRE 1</b>	
<b>PLENARY SESSION</b> 09:45-10:30	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Joon Myong Song</b></p> <p style="text-align: center;">Seoul National University, South Korea</p> <p style="text-align: center;"><b>"ID483- Transparent Tumor Imaging-based Drug Penetration Monitoring"</b></p>
<b>PLENARY SESSION</b> 10:30-11:15	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Hideaki Shirota</b></p> <p style="text-align: center;">Chiba University, Japan</p> <p style="text-align: center;"><b>"ID716- Probing the Intermolecular Vibrations and Reorientation in Liquids and Solutions by Femtosecond Raman-Induced Kerr Effect Spectroscopy"</b></p>
11:15-11:45	<b>COFFEE BREAK</b>
<b>PLENARY SESSION</b> 11:45-12:30	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Thomas Webster</b></p> <p style="text-align: center;">Hebei University of Technology, Tianjin, China and Interstellar Therapeutics, Mansfield, MA USA</p> <p style="text-align: center;"><b>"ID497- A Real BandAid™: Incorporating Artificial Intelligence (AI) into Biomaterials, Nanotechnology, Sensors, and Medicine"</b></p>

12:30-14:00	<b>LUNCH</b>		
	<b>INTERM</b> <b>YUNUS EMRE 1</b>	<b>BIOMATSEN &amp; NANOMACH</b> <b>ARISTO</b>	<b>INTERPHOTONICS &amp; SEMIMATER</b> <b>HİPOKRAT</b>
<b>PARALLEL SESSIONS</b> 14:00-16:10	<p>Chairperson: <b>Sergey Katsyuba</b></p> <p>14:00-14:30 <b>Sergey Katsyuba</b> Arbuzov Institute of Organic and Physical Chemistry, Russian Federation <i>(invited speaker)</i> <b>ID723- Clarifying structure of aqueous solutions by computationally supported spectral analysis</b></p> <p>14:30-15:00 <b>Oleksandr Kryshtal</b> AGH University of Krakow, Poland <i>(invited speaker)</i></p>	<p>Chairperson: <b>Ewa Mijowska</b></p> <p>14:00-14:30 <b>Ewa Mijowska</b> West Pomeranian University of Technology, Poland <i>(invited speaker)</i> <b>ID842- Borophene as bifunctional electrocatalyst for electrochemical water decomposition (HER/OER)</b></p> <p>14:30-14:50 <b>Olga D. Hendrickson</b></p>	<p>Chairperson: <b>Ersin Kayahan</b></p> <p>14:00-14:30 <b>Hendrik C Swart</b> University of the Free State, South Africa <i>(invited speaker)</i> <b>ID683- Laser-induced heating decimated luminescence nanothermometry using robust LaOF:Yb3+, Er3+ upconversion nanophosphors</b></p> <p>14:30-15:00 <b>Yia-Chung Chang</b></p>

	<p>ID728- Examination of phase transformations in single metal and alloy nanoparticles by in situ valence electron energy loss spectroscopy</p> <p>15:00-15:30 <b>Monica Baia</b> Babes-Bolyai University, Romania <i>(invited speaker)</i></p> <p><b>ID756- VIBRATIONAL SPECTROSCOPIC INVESTIGATIONS ON PHARMACEUTICALS</b></p> <p>15:30-16:00 <b>Lucian Baia</b> Babes-Bolyai University, Romania <i>(invited speaker)</i></p> <p>ID755- Bioactive glasses/glass-ceramics/metal nanoparticles based composites for tissue engineering applications</p>	<p>Research Center of Biotechnology of the Russian Academy of Sciences, Russian Federation</p> <p><b>ID506</b>-Application of nanozymes in lateral flow test systems for food control</p> <p>14:50-15:20 <b>Livia Alexandra Dinu</b> National Institute of Research and Development for Microtechnology, Romania <i>(invited speaker)</i></p> <p><b>ID502</b>-Metallic nanoparticles-graphene nanohybrids as artificial enzymes for environmental and biomedical electrochemical applications</p> <p>15:20-15:50 <b>Mingjun Xie</b> Zhejiang Provincial People's Hospital, China <i>(invited speaker)</i></p> <p><b>ID501</b>-Electrospray Preparation Method and Biomedical Application of Multifunctional Gelatin-Based Microgel</p> <p>15:50-16:10 <b>Thokozani Xaba</b> Vaal University of Technology, South Africa <b>ID852</b>- A Facile one-pot Synthesis of Ag<sub>2</sub>Te Nanoparticles and the Fabrication of Nanocomposites for the Removal of Chromium (VI) in Wastewater</p>	<p>National Cheng-Kung University, Taiwan <i>(invited speaker)</i></p> <p><b>ID15</b>-Modeling Carbon-Based Nanostructures and Devices: A Comprehensive Approach</p> <p>15:00-15:20 <b>Khafiz Salikhov</b> Tatarstan Academy of Sciences, Russian Federation <b>ID705</b>- OPTO-ELECTRONIC SENSOR OF HYDROGEN</p> <p>15:20-15:40 <b>Waldemar Swiderski</b> Military Institute of Armament Technology, Poland <b>ID680</b>- A new method for measuring the flux density of terahertz radiation</p> <p>15:40-16:10 <b>Xincheng Yao</b> University of Illinois Chicago, USA <i>(invited speaker)</i></p> <p><b>ID712</b>- Polarization Characterization of Ballistic and Multiply Scattering Photons in Retinal OCT Bands</p>
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<b>PROGRAM</b>	
<b>FRIDAY, APRIL 19, 2024</b>	
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER</b>	
<b>YUNUS EMRE 1</b>	
<b>PLENARY SESSION</b> 09:30-10:15	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Yi Wang</b> Cornell University, USA</p> <p style="text-align: center;"><b>“ID759-Interconnection of microscopy and radiology in medical imaging”</b></p>
<b>PLENARY SESSION</b> 10:15-11:00	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Kazuo Umemura</b> Tokyo University of Science, Japan</p> <p style="text-align: center;"><b>“ID493- Enzyme and carbon nanotube devices using floatable diatom frustules as a nanoporous silica”</b></p>
11:00-11:30	<b>COFFEE BREAK</b>
<b>PLENARY SESSION</b> 11:30-12:15	<p>Chairperson: <b>Ersin Kayahan</b></p> <p style="text-align: center;"><b>My Ali El Khakani</b> INRS, University of Quebec, Canada</p> <p style="text-align: center;"><b>“ID14- Photosensitizing materials via their decoration with pulsed-laser-deposited nanoparticles”</b></p>

12:30-13:15	<b>LUNCH</b>
13:15-18:00	<b>SOCIAL PROGRAM</b>  13:15-18:00 <b>GHOST TOWN &amp; BLUE LAGOON</b>  (Gathering at Congress registration desk)
19:30-21:30	<b>DINNER WITH INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER PLENARY SPEAKERS</b>

<b>PROGRAM</b> <b>SATURDAY, APRIL 20, 2024</b>		
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER</b>		
<b>YUNUS EMRE 1</b>		
<b>PLENARY SESSION</b> 10:30-11:15	Chairperson: <b>A.Yavuz Oral</b>  <p style="text-align: center;"><b>Günther Rupprechter</b> TU Wien, Austria</p> <p style="text-align: center;">“ID843- Observing nanostructures and reactants during catalysis by correlative surface microscopy”</p>	
11:15-11:45	<b>COFFEE BREAK</b>	
<b>PLENARY SESSION</b> 11:45-12:30	Chairperson: <b>A.Yavuz Oral</b>  <p style="text-align: center;"><b>Alexander Khmaladze</b> SUNY at Albany, USA</p> <p style="text-align: center;">“ID713- 3D Imaging and Spectroscopy of Complex Biological Systems at the Sub-Cellular, Cellular and Multicellular Levels”</p>	
12:30-14:00	<b>LUNCH</b>	
	<b>INTERM</b> <b>YUNUS EMRE 1</b>	<b>BIOMATSEN &amp; NANOMACH</b> <b>ARİSTO</b>
	<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER</b> <b>EFLATUN</b>	



PARALLEL SESSIONS 14:00-16:30	<p>Chairperson: <b>Liang Wang</b></p> <p>14:00-14:30  <b>Liang Wang</b>  Guangdong Provincial People's Hospital (Guangdong Academy of Medical Sciences), Southern Medical University, China  <i>(invited speaker)</i>  <b>ID715-</b> Current advances and challenges of label-free SERS application in bacterial infection and antibiotic resistance</p>	<p>Chairperson: <b>Marek Godlewski</b></p> <p>14:00-14:30  <b>Marek Godlewski</b>  Polish Academy of Sciences, Poland  <i>(invited speaker)</i>  <b>ID485-</b> ZnO-BASED MARKERS ACTIVATED WITH RARE EARTH IONS FOR THERANOSTIC APPLICATIONS</p>	<p>Chairperson: <b>Ersin Kayahan</b></p> <p>14:00-14:30  <b>Hongwei Luo</b>  China Electronic Product Reliability and Environmental Testing Research Institute, China  <i>(invited speaker)</i>  <b>ID6-</b> The Resonance Measurement Under DC Bias Electric Field for Electrostrictive Ceramic</p>	
	<p>14:30-15:00  <b>Xiping Guo</b>  Northwestern Polytechnical University, China  <i>(invited speaker)</i>  <b>ID731-</b> Preparation and Oxidation Resistance of Silicide Coating on Tungsten Substrate</p>	<p>14:30-15:00  <b>MERUYERT NAZHIPKYZY</b>  Satbayev University, Kazakhstan  <i>(invited speaker)</i>  <b>ID881-</b> BIOMASS-DERIVED ACTIVATED CARBONS FOR ELECTROCHEMICAL ELECTRODES</p>	<p>14:30-15:00  <b>Ahmed Hassanein</b>  Purdue University, USA  <i>(invited speaker)</i>  <b>ID710-</b> Optimization of EUV Photons from Laser Produced Plasma in Advanced Nanolithography Devices</p>	
	<p>15:00-15:30  <b>Hirimitsu Nakajima</b>  Saitama University, Japan  <i>(invited speaker)</i>  <b>ID735-</b> Analyses of iron species, metals, and pigments in the iron-hyperaccumulator moss <i>Scopelophila ligulata</i></p>	<p>15:00-15:30  <b>Sanjairaj Vijayavenkataraman</b>  New York University Abu Dhabi, UAE  <i>(invited speaker)</i>  <b>ID513-</b> 3D bioprinting: Challenges in Commercialization and Clinical Translation</p>	<p>15:00-15:30  <b>Egor Ilyukov</b>  Saratov State University, Russian Federation  <i>(invited speaker)</i>  <b>717-</b>Bluetooth technology in scientific applications</p>	
	<p>15:30-15:50  <b>Ping Guan</b>  Northwestern Polytechnical University, China  <b>ID724-</b>Preparation of Ionic Liquid Electrolyte Suitable for Low Temperature Environment and Its Lithium Ion Battery</p>	<p>15:30-16:00  <b>Rustem Zairov</b>  Kazan Federal University, Russian Federation  <i>(invited speaker)</i>  <b>519-</b> Lanthanide Chelate Nanoparticles as luminescent thermometers</p>		
	<p>15:50-16:20  <b>Anuradha Pallipurath</b>  University of Leeds, UK  <i>(invited speaker)</i>  <b>ID764-</b> Understanding organic crystal surfaces using polarized Raman spectroscopy</p>	<p>16:00-16:30  <b>Irina Ungureanu (Negut)</b>  National Institute for Lasers, Romania  <i>(invited speaker)</i>  <b>ID499-</b> Advanced Laser Synthesized Coatings to Optimize Stainless-Steel Implant-Like Surfaces: A Specialized Approach for Enhanced Biocompatibility and Antimicrobial Action</p>		

<b>PROGRAM</b>	
<b>SUNDAY, APRIL 21, 2024</b>	
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER</b>	
<b>YUNUS EMRE 1</b>	
PLENARY SESSION 10:30-11:15	<p>Chairperson: <b>A.Yavuz Oral</b></p> <p style="text-align: center;"><b>Alper Sahiner</b>  Seton Hall University, USA</p> <p style="text-align: center;"><b>"ID762-Structure-Function Correlation in Advanced Materials Using Synchrotron Based Spectroscopy"</b></p>
11:15-11:45	<b>COFFEE BREAK</b>

<b>PLENARY SESSION</b> 11:45-12:30	Chairperson: <b>A.Yavuz Oral</b>  <div style="text-align: center;"><b>Shakil Awan</b> University of Plymouth, UK</div> <p>“ID752- Confocal Microscopy Imaging of Drosophila Melanogaster Embryos Exposed to Tumor Treating Alternating Current Electric Fields”</p>			
12:30-14:00	<b>LUNCH</b>			
	<b>INTERM</b>  <b>YUNUS EMRE 1</b>	<b>BIOMATSEN</b>  <b>ARİSTO</b>	<b>NANOMACH</b>  <b>EFLATUN</b>	<b>INTERPHOTONICS &amp; SEMIMATER</b>  <b>HİPOKRAT</b>
<b>PARALLEL SESSIONS</b> 14:00-16:30	Chairperson: <b>Antony Ali ASSAF</b>  14:00-14:30 <b>Antony Ali ASSAF</b> Nantes Université, France <i>(invited speaker)</i> <b>ID720-</b> Raman spectroscopy applied on living samples: Monitoring of algal cells production in photobioreactors  14:30-15:00 <b>Urška Gradišar Centa</b> University of Ljubljana, Slovenia <i>(invited speaker)</i> <b>ID750-</b> Characterization of composite materials  15:00-15:30 <b>Holger Klein</b> CNRS, France <i>(invited speaker)</i> <b>ID758-</b> Going to extremely low doses: electron crystallography with the dose-symmetric electron diffraction tomography  15:30-15:50 <b>Milojevic Tetyana</b> CNRS-Centre de Biophysique Moléculaire, University of Orléans, France <b>ID757-</b> Nanoscale investigations of complex microbial interactions with extraterrestrial and terrestrial minerals using TEM-based approach: implications for life on Earth and beyond  15:50-16:20 <b>Wolfgang Werner</b> TU Wien, Austria <i>(invited speaker)</i> <b>ID747-</b> Quantitative Interpretation of Nanoparticle X-ray Photoelectron Intensities	Chairperson: <b>Arcady Zhukov</b>  14:00-14:30 <b>Arcady Zhukov</b> University of Basque Country, Spain <i>(invited speaker)</i> <b>ID494-</b> DEVELOPMENT OF SMART COMPOSITES WITH FERROMAGNETIC MICROWIRES  14:30-15:00 <b>Anil Koklu</b> ASELSAN, Turkiye <i>(invited speaker)</i> <b>ID491-</b> Detection of disease biomarkers via electrical and fluorescence-based biosensors  15:00-15:30 <b>Olga Pechanova</b> Slovak Academy of Sciences, Slovakia <i>(invited speaker)</i> <b>ID490-</b> Simvastatin- and coenzyme-Q10-loaded polymeric nanoparticles increased nitric oxide synthase activity via the Akt-eNOS pathway in obese Zucker rats  15:30-16:00 <b>Taras Kavetskyy</b> Slovak Academy of Sciences, Slovakia <i>(invited speaker)</i> <b>ID516-</b> NETWORK PROPERTIES OF POLYMER MATRIXES FOR CONTROLLING A FUNCTIONALITY OF AMPEROMETRIC BIOSENSORS: RECENT ADVANCES AND PERSPECTIVES  16:00-16:30 <b>Kerry J Lee</b> Florida Gulf Coast University, USA <i>(invited speaker)</i> <b>ID509-</b> Design of Biosensor Assays for Study of Single Live Bacteria and Cancer Cells Using Single Silver (Ag) Ultrasmall Nanoparticle Optical Probes	Chairperson: <b>Josep Nogues</b>  14:00-14:30 <b>Josep Nogues</b> Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain <i>(invited speaker)</i> <b>ID876-</b> Anisometric Fe3O4 nanoparticles as versatile theranostic agents  14:30-14:50 <b>Jacek Podwórny</b> Łukasiewicz Research Network-Institute of Ceramics and Building Materials, Poland <b>ID910-</b> Phase transformation in Ag-TiO2 nanocomposites  14:50-15:10 <b>Anna Pajor-Świerzy</b> Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Poland <b>ID856-</b> Fabrication of conductive coatings based on nickel@silver core@shell nanoparticles by low-temperature sintering methods  15:10-15:40 <b>Mariana Ionita</b> University of Science and Technology Politehnica of Bucharest, Romania <i>(invited speaker)</i> <b>ID841-</b> Emerging strategies in bone regeneration: from scaffold to tissue regeneration	Chairperson: <b>Ersin Kayahan</b>  14:00-14:30 <b>Constantin Meis</b> CEA – Saclay, France <i>(invited speaker)</i> <b>ID678-</b> Quantized field of single photons. The photon electric field and the photon wave function.  14:30-15:00 <b>Tamara Basova</b> Siberian Branch of Russian Academy of Sciences, Russian Federation <i>(invited speaker)</i> <b>ID3-</b> Chemiresistive gas sensors based on metal phthalocyanines and their hybrid structures with metal nanoparticles  15:00-15:20 <b>Alena Zavadilová</b> Czech Technical University in Prague, Czech Republic <b>ID687-</b> Laser-induced breakdown spectroscopy of uranium in eye-safe area  15:20-15:50 <b>Pericle Varasteanu</b> IMT Bucharest, Romania <i>(invited speaker)</i> <b>ID704-</b> Surface Plasmon Resonance Based Sensors: from prism coupling to direct excitation

19:30- 21:30	<b>DINNER WITH BIOMATSEN &amp; INTERPHOTONICS &amp; SEMIMATER INVITED SPEAKERS</b>
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<b>PROGRAM</b> <b>MONDAY, APRIL 22, 2024</b>
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<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER</b>
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<b>YUNUS EMRE 1</b>
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<b>PLENARY SESSION</b> 10:30-11:15	Chairperson: <b>A.Yavuz Oral</b>  <div style="text-align: center;"> <b>Yimei Zhu</b>             Brookhaven National Laboratory, USA   <b>"ID734- Seeing Matter from Ultra-small to Ultra-fast and to Ultra-cold with Electrons"</b> </div>
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12:30- 13:15	<b>LUNCH</b>
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13:15-18:00	<b>SOCIAL PROGRAM</b>  <b>13:15-18:00 THE BOAT CRUISE AROUND EXCELLENT BAYS OF BLUE LAGOON &amp; VISIT TO St. NICHOLAS ISLAND</b>  <i>(Gathering at Congress registration desk)</i>
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19:30-21:30	<b>DINNER WITH INTERM &amp; NANOMACH INVITED SPEAKERS</b>
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<b>PROGRAM</b> <b>TUESDAY, APRIL 23, 2024</b>
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<b>INTERPHOTONICS</b>  <b>YUNUS EMRE 1</b>
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PARALLEL SESSIONS 10:00-11:50	<p>Chairperson: <b>Ersin Kayahan</b></p> <p>10:00-10:30  <b>Alexandra Mocanu</b>  National Institute for Research and Development in Microtechnologies, Romania  <i>(invited speaker)</i>  <b>ID699-</b> POLYMER PHOTONIC CRYSTALS: SYNTHESIS, CHARACTERIZATION AND APPLICATIONS</p> <p>10:30-11:00  <b>Rudolf Korsmik</b>  Saint Petersburg state marine technical university, Russian Federation  <i>(invited speaker)</i>  <b>ID715-</b>STRUCTURE AND MECHANICAL PROPERTIES OF INCREASED STRENGTH SHIPBUILDING STEEL JOINTS PRODUCED BY HYBRID LASER-ARC WELDING</p> <p>11:00-11:30  <b>Olga Klimova-Korsmik</b>  Saint Petersburg state marine technical university, Russian Federation  <i>(invited speaker)</i>  <b>ID716-</b>DIRECT ENERGY DEPOSITION OF FUNCTIONALLY-GRADED MATERIALS</p> <p>11:30-11:50  <b>Vala Can Aşkan</b>  Gebze Technical University, Turkiye  <b>ID720-</b>Synthesis of Graphene from the Photothermal Reaction with a CO<sub>2</sub> Laser and Its Effect on the Microstructural, Elemental, and Electrical Properties of Polyvinylidene Fluoride</p>
12:30-14:00	<b>LUNCH</b>

<b>INTERM &amp; NANOMACH</b>  <b>YUNUS EMRE 1</b>	<b>BIOMATSEN</b>  <b>ARİSTO</b>
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PARALLEL SESSIONS 14:00-16:10	<p>Chairperson: <b>Ovidiu Crisan</b></p> <p>14:00-14:30  <b>Ovidiu Crisan</b>  National Institute for Materials Physics, Romania  (invited speaker)  <b>ID893-</b> Magnetic Nanolayered Systems with THz Emission Properties</p> <p>14:30-14:50  <b>Karolina Dudek</b>  Łukasiewicz - Institute of Ceramics and Building Materials, Poland  <b>ID909-</b> Functionalization of the NiTi shape memory alloy surface by innovative hybrid coatings</p> <p>14:50-15:20  <b>Cristina PACHIU</b>  National Institute for Research and Development in Microtechnologies (IMT-Bucharest), Romania  (invited speaker)  <b>ID737-</b>CARBON NANOMATERIALS WITH PERFORMANCE IN EMI SHIELDING: GROWTH, STRUCTURING AND CHARACTERIZATION OF MATERIALS</p> <p>15:20-15:50  <b>Filipe Mergulhão</b>  University of Porto – FEUP, Portugal  (invited speaker)  <b>ID727-</b> Development of Functionalized Carbon Nanotubes and Graphene Composites to Inhibit Single- and Multi-Species Biofilms in Medical Devices</p> <p>15:50-16:10  <b>Onur Alp Aksan</b>  Gebze Technical University, Turkiye  <b>ID913-</b>Fabrication of Polymer Nanocomposites with Tunable Mechanical and Functional Properties via Stereolithography</p>	<p>Chairperson: <b>Owen J Guy</b></p> <p>14:00-14:30  <b>Owen J Guy</b>  Swansea University, UK  (invited speaker)  <b>ID486-</b> Graphene and silicon chip technologies for biosensing applications</p> <p>14:30-15:00  <b>Vasa Radonic</b>  BioSense Institute, Serbia  (invited speaker)  <b>ID488-</b> INNOVATIONS IN GOLD ELECTRODE MANUFACTURING FOR COST-EFFECTIVE BIOSENSORS</p> <p>15:00-15:30  <b>Darya Alontseva</b>  D. Serikbayev East Kazakhstan Technical University, Kazakhstan  (invited speaker)  <b>ID511-</b> Enhancing the biocompatibility and bacteria resistance of 3D printed Ti6Al4V alloy endoprosthetic implants by applying Ta and Ta-Cu coatings</p> <p>15:30-15:50  <b>Daniel Gillard</b>  Swansea University, UK  <b>ID487-</b> Molecular Vapor Deposition (MVD) – for biosensing applications</p>	
	<p>16:10-16:40 <b>COFFEE BREAK</b></p>		
	<p style="text-align: center;"><b>INTERPHOTONICS &amp; SEMIMATER</b></p> <p style="text-align: center;"><b>YUNUS EMRE 1</b></p>		
	PARALLEL SESSIONS 16:40-17:20	<p>Chairperson: <b>Ersin Kayahan</b></p> <p>16:40-17:00  <b>Fatmanur Kocaman Kabil</b>  Gebze Technical University, Turkiye  <b>ID27-</b> ZnO Powders Synthesized by Extracellular <i>R. Pusillus</i> Fungi</p> <p>17:00-17:20  <b>Bahar Şölen Akdemir Yilmaz</b>  Gebze Technical University, Turkiye  <b>ID719-</b> An Investigation on the Electrical Conductivity Mechanism of PEDOT: PSS Insights from UV-Vis-NIR Absorption Spectroscopy and Solvent Interaction Studies</p>	

17:30-18:30	<b>FOYER (Poster Session Area)</b> Chairperson: A. Yavuz Oral  <b>POSTER SESSION</b>  <b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS &amp; SEMIMATER</b>
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**PROGRAM**  
**WEDNESDAY, APRIL 24, 2024**

**INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS & SEMIMATER**

**YUNUS EMRE 1**

PARALLEL SESSIONS 10:30-11:40	Chairperson: <b>Klimonsky Sergey</b>  10:30-11:00 <b>Klimonsky Sergey</b> Lomonosov Moscow State University, Russian Federation <i>(invited speaker)</i> <b>ID685</b> - Stripe patterned photonic crystals: preparation and properties  11:00-11:20 <b>Krzysztof Szczepanowicz</b> Jerzy Haber Institute of Catalysis and Surface Chemistry, Poland <b>ID860</b> - Theranostic nanocarriers to the central nervous system therapies  11:20-11:40 <b>Klaudia Zielinkiewicz</b> West Pomeranian University of Technology, Poland <b>ID845</b> - Bulk scale fabrication of few-layered borophene - a combined strategy
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12:00	<b>Hotel Check Out</b>
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<b>PROGRAM LEGEND DESCRIPTIONS</b>	
<b>ID-</b>	<b>INTERM 2024 oral presentations</b>
<b>ID-</b>	<b>BIOMATSEN 2024 oral presentations</b>
<b>ID-</b>	<b>NANOMACH 2024 oral presentations</b>
<b>ID-</b>	<b>INTERPHOTONICS 2024 oral presentations</b>
<b>ID-</b>	<b>SEMIMATER 2024 oral presentations</b>

**POSTER PROGRAM**  
**TUESDAY, APRIL 23, 2024**  
**17:30-18:30**

**FOYER (Poster Session Area)**

Chairperson: A. Yavuz Oral

**POSTER SESSION**

**INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS & SEMIMATER**

ID	TITLE	CONTACT AUTHOR
739	How does the health-promoting apple phenolic phloretin affect the cell ultrastructure in Arabidopsis shoots?	Dijana Smailagić
748	Characterization of uncoated and silver coated copper flake based polymer composites	Mohor Mihelčič
495	Preparation, Structural and magnetic properties of MnFePSi-based glass-coated microwires	Valentina Zhukova
504	Bioprinting of hybrid tissue constructs containing endothelial cell spheroids	Hyeongjin Lee
505	Improvement of mechanical and biological activities of 3D printed synthetic polymer/bioceramics biocomposite scaffold for bone tissue engineering	WonJin Kim
515	A Study on the Properties of Rigid Polyurethane Foam Using Modified Cellulose Nanofiber	SangBum Kim
849	Magnetite functionalized Nigella Sativa seeds for the uptake of Chromium(VI) and Lead(II) ions from synthetic wastewater	Patience Thabede
850	Hemp seed nanoparticle composites for removing lead, methylene blue, and ibuprofen from an aqueous solution and their antimicrobial towards Escherichia coli and Staphylococcus aureus	Ntaote David Shooto
859	Influence of Microwave-Assisted Synthesis Temperature on the Formation and Properties of Hydroxyapatite	Anatolijus Eisinas
865	Study of kesterite Cu <sub>2</sub> ZnSnS <sub>4</sub> nanopowder oxidation by TGA/DTA/MS measurements in the flowing oxygen plus argon (1:4 vol.) gas mixture	Jerzy F. Janik & Katarzyna Lejda
866	TGA/DTA/MS insight into decomposition of semiconductor kesterite Cu <sub>2</sub> ZnSnS <sub>4</sub> nanopowders prepared via mechanochemically-assisted synthesis method from in-situ made Zn/Sn copper alloys	Jerzy F. Janik & Katarzyna Lejda
882	STUDIES OF POROUS CARBONS BASED ON ORANGE PEEL	AIGERIM SEITKAZINOVA
848	SYNTHESIS AND STUDY OF CARBORANYL-CONTAINING $\alpha$ -HYDRINDONES AND THEIR IMMOBILIZATION ON IRON OXIDE NANOPARTICLES FOR BORON NEUTRON CAPTURE THERAPY	Lana Lissovskaya
906	Mapping nanometer deformation of an impinging droplet on a soft substrate by interferometric nanostrain sensor	Maryam Jalali-Mousavi
911	Effectiveness of surface- structure of acrylic acid-grafted pine-magnetite bionanocomposites in the removal	Kgomotso MTSHATSHENI

862	Fe <sub>3</sub> O <sub>4</sub> @SiO <sub>2</sub> @ Zr(OH) nanocomposite for the removal of Pb <sup>2+</sup> and Cd <sup>2+</sup> ions from aqueous solution	Agnes Pholosi
885	INNOVATIVE MULTILAYER HOLOGRAPHIC LABELS WITH INTEGRATED PASSIVE UHF RFID TECHNOLOGY AND TEMPERATURE SENSING AS ANTI-COUNTERFEITING ELEMENTS	Catalin Parvulescu
894	Thermally activated phase evolution in FePtNbB nano-composite alloys	Alina Daniela Crisan
676	Autonomous Vehicle Operation using Light Sensors, Computer vision and Machine Learning	Glen Bright
713	PHOTOACOUSTIC AND LASER ULTRASOUND COMBINED TOMOGRAPHY: ADVANTAGES FOR BIOLOGICAL TISSUE DIAGNOSTICS	Varvara Simonova
714	Pulsed and continuous lasing at NV centers in diamond	Elizaveta Zaloznaya
721	Improving Mechanical Characteristics of Laser-Induced Graphene Freestanding Films for Thermoelectric Applications	Fatma Kocaman Kabil
4	PHOTOGRAFT COPOLYMERIZATION OF METHACRYLIC ACID AND 2-HYDROXYETHYLMETHACRYLATE ON PET TRACK-ETCHED MEMBRANES FOR THE DETECTION OF HEAVY METAL IONS	Nurdaulet Zhumanazar
20	Normally-off NiOx based hydrogen terminated diamond metal oxide semiconductor field-effect-transistor	Subrat Kumar Pradhan
21	High-Performance Ta <sub>2</sub> O <sub>5</sub> -based Normally off GaN Transistors	Mahalaxmi Patil



# NOTES

A large rectangular area with a solid black border, containing 20 horizontal dotted lines for writing notes.