

**INTERM 2022**  
**9<sup>th</sup> INTERNATIONAL CONGRESS ON MICROSCOPY &  
SPECTROSCOPY**

**BIOMATSEN 2022**  
**7<sup>th</sup> INTERNATIONAL CONGRESS ON BIOMATERIALS &  
BIOSENSORS**

**NANOMACH 2022**  
**3<sup>rd</sup> INTERNATIONAL CONFERENCE ON NANOMATERIALS,  
NANOFABRICATION AND NANOCHARACTERIZATION**

**INTERPHOTONICS 2022**  
**4<sup>th</sup> INTERNATIONAL CONFERENCE ON PHOTONICS  
RESEARCH**

**APRIL 22-28, 2022**

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

<b>TENTATIVE PROGRAM</b> <b>WEDNESDAY, APRIL 20, 2022</b>	
<i>14:00-23:30</i>	<b>REGISTRATION FOR EARLY ARRIVALS</b> <b>(14:00 Check-in)</b>

<b>TENTATIVE PROGRAM</b> <b>THURSDAY, APRIL 21, 2022</b>	
<i>9:00-23:30</i>	<b>REGISTRATION</b> <b>(14:00 Check-in)</b>
<i>Everyday Tours</i>	<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>

<b>TENTATIVE PROGRAM</b> <b>FRIDAY, APRIL 22, 2022</b>	
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>	
<b>HALL 1</b>	
<b>OPENING SESSION</b> 11:00-11:15	Chairperson: <b>A.Yavuz Oral</b>  <b>OPENING CEREMONY</b> A.Yavuz Oral
11:15-11:30	<b>COFFEE BREAK</b>
<b>PLENARY SESSION</b> 11:30-12:15	Chairperson: <b>A.Yavuz Oral</b>  <b>M. Alper Şahiner</b> Seton Hall University, USA  <i>"SiGe and ZnTe nanoparticles in CdS/CdTe: photovoltaic characteristics simulations and thin film laser deposition"</i>

12:30-14:00	<b>LUNCH</b>
<b>PARALLEL SESSIONS</b> 14:00-15:30	<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b> <b>HALL 1</b>
	Chairperson: <b>Krzysztof Szymański</b>  14:00-14:30 <b>Krzysztof Szymański</b> University of Białystok <i>(Invited speaker)</i> <b>INTERM ID590</b> - Six decades of Mössbauer spectroscopy  14:30-15:00 <b>Narjiss Akerzoul</b> International University of Rabat, Morocco <i>(Invited speaker)</i> <b>INTERPHOTONICS ID601</b> - Recurrent Aphthous Stomatitis Treated with Low Level Laser Therapy  (15:00-15:30) <b>Junais Habeeb Morkath</b> Kuwait College of Science and Technology, Kuwait <i>(Invited speaker)</i> <b>INTERPHOTONICS ID599</b> - Electric Field Enhancements in Ultrathin Plasmonic Gaps

<b>TENTATIVE PROGRAM</b> <b>SATURDAY, APRIL 23, 2022</b>	
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>	
<b>HALL 1</b>	
<b>PLENARY SESSION</b> 10:00-10:45	Chairperson: <b>A.Yavuz Oral</b>  <b>Cengiz S. Ozkan</b> University of California Riverside, USA  <b>"Materials Design for Energy Storage"</b>

10:45-11:00	<b>COFFEE BREAK</b>
PARALLEL SESSIONS 11:00-12:00	<p style="text-align: center;"><b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b></p> <p style="text-align: center;"><b>HALL 1</b></p> <p>Chairperson: <b>Marek Godlewski</b></p> <p>11:00-11:30  <b>Marek Godlewski</b>  Institute of Physics, Polish Academy of Sciences, Poland  <i>(Invited speaker)</i>  <b>BIOMATSEN ID405</b>-Thin films of oxides grown by Atomic Layer Deposition for medical application</p> <p>11:30-12:00  <b>Bulent Basol</b>  Active Layer Parametrics (ALP), USA  <i>(Invited speaker)</i>  <b>INTERM ID579</b>- Electrical Characterization of Semiconductor Films Through Depth Profiles Obtained by Differential Hall Effect Metrology (DHEM)</p>
12:00-13:15	<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>

**TENTATIVE PROGRAM**

**SUNDAY, APRIL 24, 2022**

**INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS**

**HALL 1**

<b>PLENARY SESSION</b> 10:00-10:45	Chairperson: <b>A.Yavuz Oral</b>  <b>Mihri Ozkan</b> University of California Riverside, USA  “Multifunctional Materials for Mitigating Environmental Problems”
10:45-11:00	<b>COFFEE BREAK</b>
<b>PARALLEL SESSIONS</b> 11:00-12:40	<p style="text-align: center;"><b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b></p> <p style="text-align: center;"><b>HALL 1</b></p> Chairperson: <b>Valeri Ligatchev</b>  11:00-11:30 <b>Gulsah Congur</b> Bilecik Şeyh Edebali University, Turkey (Invited speaker) <b>BIOMATSEN ID426</b> -Monitoring of Phenol Biosorption by Using a Disposable Electrochemical Sensor Platform  11:30-12:00 <b>Valeri Ligatchev</b> N/A, Singapore (Invited speaker) <b>NANOMACH ID760</b> -Anharmonic Lattice Thermal Capacity and Size-Dependent Melting Temperature of Square Graphene Nano-Flakes  12:00-12:20 <b>Emilia Visileanu</b> The National Research and Development Institute for Textiles and Leather, Romania <b>NANOMACH ID748</b> -Characteristics of plastic particles in the industrial environment  12:20-12:40 <b>Xinying Liu</b> University of South Africa, South Africa <b>NANOMACH ID773</b> -Ethene Hydroformylation using Rh-Co Bimetallic catalyst supported by Reduced Graphene Oxide
12:40-14:00	<b>LUNCH</b>

<b>PARALLEL SESSIONS 14:00-15:50</b>	<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>
	<b>HALL 1</b>
	Chairperson: <b>Malgorzata Gil-Kowalczyk</b>
	14:00-14:30 <b>Malgorzata Gil-Kowalczyk</b> Maria Curie-Sklodowska University, Poland <i>(Invited speaker)</i> <b>INTERPHOTONICS ID598</b> - Designing Hybrid Materials with Properties Suitable for Optical Fiber Technology
	14:30-14:50 <b>Daria Derusova</b> Tomsk Polytechnic University, Russian Federation <b>INTERPHOTONICS ID582</b> -Air-coupled scanning laser Doppler vibrometry imaging of acoustic waves generated by a gas discharge emitter
14:50-15:10 <b>Masayuki Itoh</b> Tokyo University of Technology, Japan <b>INTERPHOTONICS ID612</b> -HIGH Optical Confinement Waveguides for High-Speed Wide-Bandwidth Data Transmission and Healthcare Data Transmission for Future Networks	
15:10-15:30 <b>Roman Parkhomenko</b> CIC NanoGUNE, Spain <b>INTERPHOTONICS ID607</b> -Spasers in the near infrared	
15:30-15:50 <b>Andrzej Kolek</b> Rzeszów University of Technology, Poland <b>INTERPHOTONICS ID610</b> -Numerical Optimization of Gain Region In Dual Upper State Quantum Cascade Laser	
<b>15:50-16:00</b>	<b>COFFEE BREAK</b>
<b>16:00-18:00</b>	<b>FOYER (Poster Session Area)</b> Chairperson: A. Yavuz Oral  <b>POSTER SESSION</b>  <b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>

<b>TENTATIVE PROGRAM</b>	
<b>MONDAY, APRIL 25, 2022</b>	
<b>PARALLEL SESSIONS 10:00-12:00</b>	<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>
	<b>HALL 1</b>
	Chairperson: <b>Filipe Mergulhao</b>
	10:00-10:30 <b>Filipe Mergulhao</b> FEUP, Portugal <i>(Invited speaker)</i> <b>INTERM ID596</b> -Using Microscopy to Assess the Effects of Surface Properties and Culture Medium During Recombinant Protein Production in Biofilms
	10:30-11:00 <b>Leonid Kulik</b> Institute of Solid-State Physics Russian Academy of Sciences, Russian Federation <i>(Invited speaker)</i> <b>INTERM ID620</b> - Optical spectroscopy of neutral excitations in Laughlin liquids
11:00-11:20 <b>Andrei Maksimov</b> Cherepovets State University, Russian Federation <b>NANOMACH ID734</b> -Study of swelling and softening effects in lithium-ion battery separators in electrolyte solvents	

	<p>11:20-11:40  <b>Olga Maksimova</b>  Cherepovets State University, Russian Federation  <b>NANOMACH ID735</b>- Investigation of the influence of the molecular structure in polymer coatings on it's optical properties</p>
12:00-13:15	<b>LUNCH</b>
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>

<b>TENTATIVE PROGRAM</b> <b>TUESDAY, APRIL 26, 2022</b>	
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>	
<b>HALL 1</b>	
<b>PLENARY SESSION</b> 10:00-10:45	<p>Chairperson: <b>XXX</b></p> <p style="text-align: center;"><b>XXXXX</b></p> <p style="text-align: center;">“XXXXX”</p>
10:45-11:00	<b>COFFEE BREAK</b>
<b>PARALLEL SESSIONS</b> 11:00-12:30	<p style="text-align: center;"><b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b></p> <p style="text-align: center;"><b>HALL 1</b></p> <p>Chairperson: <b>Valeri Barsegov</b></p> <p>11:00-11:30  <b>Valeri Barsegov</b>  University of Massachusetts, USA  <i>(Invited speaker)</i>  <b>INTERM ID618</b>-Dynamic Force Spectroscopy in silico: exploring strength, deformability and toughness of biological particles</p> <p>11:30-12:00  <b>Mehmet Emin ŞEKER</b>  Giresun University, Turkey  <i>(Invited speaker)</i>  <b>INTERM ID598</b>- A Novel Approach to Sample Preparation Techniques for Bioactive Compounds</p> <p>12:00-12:30  <b>Simona Rada</b>  Technical University of Cluj-Napoca, Romania  <i>(Invited speaker)</i>  <b>INTERM ID583</b>- Structure of silica-yttria-zirconia advanced bioceramics doped with metal oxides</p>
12:30-14:00	<b>LUNCH</b>

<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>	
<b>HALL 1</b>	
<b>PARALLEL SESSIONS 14:00-15:50</b>	<p>Chairperson: <b>Arkady Zhukov</b></p> <p>14:00-14:30  <b>Arkady Zhukov</b>  University of Basque Country and Ikerbasque, Spain  <i>(Invited speaker)</i>  <b>BIOMATSEN ID413</b>-Advanced functional magnetic microwires for magnetic sensors suitable for bio-medical applications</p> <p>14:30-15:00  <b>Tukayi Kudanga</b>  Durban University of Technology, South Africa  <i>(Invited speaker)</i>  <b>BIOMATSEN ID435</b>- Laccases in biocatalysis and modification of biomaterials</p> <p>15:00-15:30  <b>Marek Wiśniewski</b>  Nicolaus Copernicus University in Toruń, Poland  <i>(Invited speaker)</i>  <b>NANOMACH ID780</b>- Nanomaterials as catalysts for non-thermal plasma-assisted CO2 reduction to valuable compounds</p> <p>15:30-15:50  <b>Merve Kubra Aktan</b>  KU Leuven, Belgium  <b>BIOMATSEN ID416</b>- Studies on Characteristics, Antimicrobial Behaviour and Cell Viability of DNase I Coated Titanium Surfaces via Alternating Current Electrophoretic Deposition</p>

<b>TENTATIVE PROGRAM</b>	
<b>WEDNESDAY, APRIL 27, 2022</b>	
<b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b>	
<b>HALL 1</b>	
<b>PARALLEL SESSIONS 10:00-12:00</b>	<p>Chairperson: <b>Ana Silva</b></p> <p>10:00-10:30  <b>Ana Silva</b>  I3N - University of Aveiro, Portugal  <i>(Invited speaker)</i>  <b>INTERM ID612</b>- X-ray fluorescence spectroscopy and imaging analysis using gaseous detectors</p> <p>10:30-11:00  <b>Pawel Weronki</b>  J. Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Poland  <i>(Invited speaker)</i>  <b>INTERM ID627</b>-Spectral analysis of the image of random monolayer</p> <p>11:00-11:20  <b>Cieslar Miroslav</b>  Charles University, Faculty of Mathematics and Physics, Czech Republic  <b>INTERM 568</b>- Precipitation in Al-Li-based alloy studied by in-situ TEM</p> <p>11:20-11:40  <b>Lucia Bajtošová</b>  Charles University, Faculty of Mathematics and Physics, Czech Republic  <b>INTERM 569</b>- High-temperature transformations in Al-Li-based alloy studied by ACOM-TEM during in-situ heating</p>
	<p>12:00-13:15  <b>LUNCH</b></p>

13:15-18:00	<p><b>SOCIAL PROGRAM</b></p> <p><b>13:15-18:00 FETHIYE CITY TOUR &amp; THE ROCK TOMBS</b></p> <p><i>(Gathering at Congress registration desk)</i></p>
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<p><b>TENTATIVE PROGRAM</b></p> <p><b>THURSDAY, APRIL 28, 2022</b></p>	
<p><b>INTERM &amp; BIOMATSEN &amp; NANOMACH &amp; INTERPHOTONICS</b></p>	
<p><b>HALL 1</b></p>	
<p><b>PARALLEL SESSIONS 10:30-11:30</b></p>	<p>Chairperson: <b>Wolfgang Werner</b></p> <p>10:30-11:00  <b>Wolfgang Werner</b>  TU Vienna, Austria  <i>(Invited speaker)</i>  <b>INTERM ID611-</b> Low energy electron emission from surfaces, 2D-Materials formation of 2-D electron cascade in the STM-field emission regime</p> <p>11:00-11:30  <b>Alexander Khmaladze</b>  SUNY at Albany, USA  <i>(Invited speaker)</i>  <b>INTERM ID621-</b> The study of cell death mechanisms by Raman and transport of intensity phase-imaging techniques</p>
12:00	<p><b>Hotel Check Out</b></p>

<b>PROGRAM LEGEND DESCRIPTIONS</b>	
<b>ID-</b>	<b>INTERM 2022 oral presentations</b>
<b>ID-</b>	<b>BIOMATSEN 2022 oral presentations</b>
<b>ID-</b>	<b>NANOMACH 2022 oral presentations</b>
<b>ID-</b>	<b>INTERPHOTONICS 2022 oral presentations</b>