

INTERM 2023
**10th INTERNATIONAL CONGRESS ON MICROSCOPY &
SPECTROSCOPY**

BIOMATSEN 2023
**8th INTERNATIONAL CONGRESS ON BIOMATERIALS &
BIOSENSORS**

NANOMACH 2023
**4th INTERNATIONAL CONFERENCE ON NANOMATERIALS,
NANOFABRICATION AND NANOCHARACTERIZATION**

INTERPHOTONICS 2023
**5th INTERNATIONAL CONFERENCE ON PHOTONICS
RESEARCH**

APRIL 13-19, 2023

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

TENTATIVE PROGRAM TUESDAY, APRIL 11, 2023	
<i>14:00-16:30</i>	REGISTRATION FOR EARLY ARRIVALS (14:00 Check-in)

TENTATIVE PROGRAM WEDNESDAY, APRIL 12, 2023	
<i>9:00-16:30</i>	REGISTRATION (14:00 Check-in)
<i>Everyday Tours</i>	SOCIAL PROGRAM <ul style="list-style-type: none">• <i>Saklıkent Jeep Safari</i>• <i>Paragliding in Oludeniz</i>

TENTATIVE PROGRAM
THURSDAY, APRIL 13, 2023

INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS

HALL 1

PLENARY SESSION 10:30-11:15	<p>Chairperson: A.Yavuz Oral</p> <p style="text-align: center;">Josep Nogués Catalan Institute of Nanoscience and Nanotechnology, Spain</p> <p style="text-align: center;">“Magnetoplasmonic nanodomains as a novel structure for biomedical applications”</p>
11:15-11:30	COFFEE BREAK
PLENARY SESSION 11:30-12:15	<p>Chairperson: A.Yavuz Oral</p> <p style="text-align: center;">Hendrick C. Swart University of the Free State, South Africa</p> <p style="text-align: center;">“Applications of AES, XPS and TOF SIMS to phosphor nanomaterials”</p>

12:30-14:00	LUNCH	
PARALLEL SESSIONS 14:00-15:30	<p>INTERM & INTERPHOTONICS</p> <p>HALL 1</p> <p>Chairperson: Josh Davies-Jones</p> <p>14:00-14:30 Josh Davies-Jones Cardiff Catalysis Institute, UK <i>Invited speaker</i> ID684- Imaging the Nanoscale World of Life: A Biophysical Approach to Studying Microbes, Stem Cells, and Antibiotic Resistance</p> <p>14:30-15:00 Victor Pavlov Ioffe Institute, the Russian Academy of Sciences, Russian Federation <i>Invited speaker</i> ID700- Unusual magneto-optics of europium chalcogenide magnetic semiconductors</p> <p>15:00-15:30 Christian Andreasen University of Copenhagen, Denmark <i>Invited speaker</i> ID638- Weed control with a 2 μm fiber laser: How does the laser beam affect non-target organisms?</p>	<p>BIOMATSEN & NANOMACH</p> <p>HALL 2</p> <p>Chairperson: Izabela Kuryliszyn-Kudelska</p> <p>14:00-14:30 Izabela Kuryliszyn-Kudelska Institute of Physics Polish Academy of Sciences, Poland <i>Invited speaker</i> ID822- Magnetic semiconductor nanocrystals based on oxide compounds</p> <p>14:30-14:50 Klaudia Maslana West Pomeranian University of Technology in Szczecin, Poland ID819- Cellulose-based electrocatalysts for water splitting</p> <p>14:50-15:10 Olga Hendrikson Russian Academy of Sciences, Russian Federation ID406- Immunochromatographic test systems for rapid and sensitive detection of phycotoxins</p>
15:30-15:40	COFFEE BREAK	
PARALLEL SESSIONS 15:30-17:00	<p>INTERM & INTERPHOTONICS</p> <p>HALL 1</p> <p>Chairperson: Ewa Mijowska</p> <p>15:30-16:00 Ewa Mijowska West Pomeranian University of Technology, Poland <i>Invited speaker</i></p>	<p>INTERM & BIOMATSEN & NANOMACH</p> <p>HALL 2</p> <p>Chairperson: Nutthaya Butwong</p> <p>15:30-16:00 Nutthaya Butwong Rajamangala University of Technology Isan, Thailand</p>

	<p>ID668- Solid wastes recycling into hierarchical porous carbon materials for supercapacitors – microscopic and spectroscopic study</p> <p>16:00-16:30 Irena Kostova Medical University-Sofia, Bulgaria <i>Invited speaker</i></p> <p>ID696- Theoretical DFT and vibrational (IR and Raman) characterization of biologically active lanthanide(III) complexes</p> <p>16:30-17:00 Nikita Kirsanov Terra Quantum AG, Switzerland <i>Invited speaker</i></p> <p>ID651- End-To-End Line Control For Optical Quantum Key Distribution</p>	<p>ID680- Application of Attenuated Total Reflectance Infrared Spectroscopy (ATR) in quantification: Determination of Hydroquinone in Whitening Facial Cream</p> <p>16:00-16:30 Luigi Santamaria Italian Space Agency, Italy</p> <p>ID679- Spatial demultiplexing imaging and spectroscopy</p>
19:30-21:30	<p>DINNER WITH ALL PLENARY SPEAKERS</p> <p>(INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS)</p>	

TENTATIVE PROGRAM	
FRIDAY, APRIL 14, 2023	
INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS	
HALL 1	
PLENARY SESSION 10:30-11:15	Chairperson: A.Yavuz Oral
11:15-11:30	COFFEE BREAK
PLENARY SESSION 11:30-12:15	Chairperson: A.Yavuz Oral
	<p>Sanjairaj Vijayavenkataraman New York University Abu Dhabi, United Arab Emirates</p> <p>“Eco-friendly Bioinks for 3D Bioprinting of Soft Tissues”</p>
12:30-13:15	LUNCH
13:15-18:00	<p>SOCIAL PROGRAM</p> <p>13:15-18:00 FETHIYE CITY TOUR & THE ROCK TOMBS</p> <p>(Gathering at Congress registration desk)</p>
19:30-21:30	DINNER WITH BIOMATSEN INVITED SPEAKERS

TENTATIVE PROGRAM
SATURDAY, APRIL 15, 2023

INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS

HALL 1

PLENARY SESSION 10:30-11:15	Chairperson: A.Yavuz Oral Naceur Belgacem University Grenoble Alpes, CNRS, Grenoble INP, LGP2, Grenoble, France "Cellulose as substrate for active surfaces: Theory and applications"
11:15- 11:30	COFFEE BREAK
PLENARY SESSION 11:30-12:15	Chairperson: A.Yavuz Oral Wuge H Briscoe University of Bristol, UK "Self-assembly and interactions of bacterial lipids"
12:30- 14:00	LUNCH

PARALLEL SESSIONS 14:00-16:30	INTERM HALL 1	INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS HALL 2	INTERM & INTERPHOTONICS HALL 3
	Chairperson: Günther Rupprechter	Chairperson: Zhandos Tauanov	Chairperson: Marek Godlewski
	14:00-14:30 Günther Rupprechter TU Wien, Austria Invited speaker ID653- Correlative in situ surface microscopy of rhodium catalyzed hydrogen oxidation	14:00-14:30 Zhandos Tauanov LLP "Scientific Production Technical Center "Zhalyln", Kazakhstan Invited speaker ID791- Rice husk derived synthetic zeolites and nanocomposites: synthesis and characterization	14:00-14:30 Marek Godlewski Polish Academy of Sciences, Poland Invited speaker ID636- Fluorescent Markers For Early Detection Of Cancer
	14:30-15:00 Sergey Katsyuba Arbuzov Institute of Organic and Physical Chemistry, Russian Federation Invited speaker ID665- Computational modeling of condensed-state infrared and Raman vibrational spectra as a tool for analysis of molecular and supramolecular structure of liquids, amorphous solids and their solutions	14:30-14:50 Zhandos Tauanov LLP "Marmar Kazakhstan", Kazakhstan ID442- Antimicrobial Properties of the Triclosan-Loaded Polymeric Composite Based on Unsaturated Polyester Resin: Synthesis, Characterization and Activity	14:30-15:00 Ludmil T. Benov Kuwait University, Kuwait Invited speaker ID646- Site-specific delivery of photo-generated cytotoxic species
	15:00-15:30 Takuya Matsumoto Osaka University, Japan Invited speaker ID678- Time-Resolved Charge Observation by Tip-Synchronized Electrostatic Force Microscopy	14:50-15:20 Benjamin Burton Xxx, USA Invited speaker ID825- First Principles Studies 2D Mo(S,Te) ₂ alloys adsorbed on Sapphire and Graphite, and sandwiched between Graphene layers, and 2D (Al,Sc)N alloys on Sapphire	15:00-15:30 Mahmoud Huleihel Ben-Gurion University (BGU), Israel Invited speaker ID675- Rapid Identification and Antibiotics Susceptibility determination of Bacteria Isolated Directly from Patients' Urine Samples by Infrared Spectroscopy in Tandem with Machine Learning
	15:30-15:50 Tomoki Misaka Osaka University, Japan ID702- EFM/KPFM measurement of plasmon-induced charge separation on Au nano-particle/ TiO ₂ interface	15:20-15:50 Arcady Zhukov University of Basque Country, UPV/EHU, Spain Invited speaker ID474- Development of magnetic microwires for magnetic sensors applications	15:30-16:00 Ahmad Salman SCE-Sami Shamon College of Engineering, Israel Invited speaker ID674- Monitoring the Response of the Immune System by Infrared Spectroscopy-Based Machine-Learning algorithms for Rapid Diagnosis of the Etiology of Patients' Infections as Bacterial or Viral
	15:50-16:10 Elena Kozlova Federal Research and Clinical Center of Intensive Care Medicine and Rehabilitology, Russian Federation ID649- Comprehensive study of red blood cell pathologies using atomic force microscopy	15:50-16:10 Masahiro Nakayama Osaka University, Japan ID685- Energy-level alignment of Ru complexes placed in multi-layers probed by frequency modulated EFM	16:00-16:30 Czesława Paluszkiwicz Institute of Nuclear Physics Polish Academy of Sciences, Poland Invited speaker ID688- Spectroscopic methods in the study of the influence of amino acids on the corrosion process of materials used for implants
	16:10-16:30 Klaudia Zielinkiewicz West Pomeranian University of Technology, Poland ID669- Ball milling as facile route for borophene nanoflakes fabrication	16:10-16:30 Dmitry Kronberg Terra Quantum AG, Switzerland ID645- Quantum key distribution over global distances by using quantum thermodynamics restrictions	
	16:30-16:40	COFFEE BREAK	
	16:40-17:40	FOYER (Poster Session Area) Chairperson: A. Yavuz Oral POSTER SESSION INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS	

19:30-21:30	DINNER WITH <i>INTERPHOTONICS INVITED SPEAKERS</i>
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TENTATIVE PROGRAM SUNDAY, APRIL 16, 2023	
HALL 1	
PLENARY SESSION 10:30-11:15	<p>Chairperson: A.Yavuz Oral</p> <p style="text-align: center;">Thomas Webster Hebei University of Technology, China</p> <p style="text-align: center;">“ A Review of Nanomaterials in Humans”</p>
11:15-11:30	COFFEE BREAK
PLENARY SESSION 11:30-12:15	<p>Chairperson: A.Yavuz Oral</p> <p style="text-align: center;">Holger Klein Institut Néel, Université Grenoble Alpes & CNRS, France</p> <p style="text-align: center;">“Beam-sensitive nano-crystals: a double challenge for crystallographic structure solution”</p>
12:30-13:15	LUNCH
13:15-18:00	<p style="text-align: center;">SOCIAL PROGRAM</p> <p style="text-align: center;">13:15-18:00 THE BOAT CRUISE AROUND EXCELLENT BAYS OF BLUE LAGOON & VISIT TO St. NICHOLAS ISLAND</p> <p style="text-align: center;">(Gathering at Congress registration desk)</p>
19:30-21:30	DINNER WITH <i>NANOMACH INVITED SPEAKERS</i>

TENTATIVE PROGRAM MONDAY, APRIL 17, 2023	
INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS	
HALL 1	
PLENARY SESSION 10:30-11:15	<p>Chairperson: A.Yavuz Oral</p>
11:15-11:30	COFFEE BREAK

PLENARY SESSION 11:30-12:15	<p>Chairperson: A.Yavuz Oral</p> <p style="text-align: center;">Biqiong Chen</p> <p style="text-align: center;">Queen's University Belfast, UK</p> <p style="text-align: center;">“Biomimetic elastomers and elastomer nanocomposites for biomedical applications”</p>		
12:30-14:00	LUNCH		
PARALLEL SESSIONS 14:00-15:30	<p>INTERM & INTERPHOTONICS</p> <p style="text-align: center;">HALL 1</p> <p>Chairperson: Denis Koume</p> <p>14:00-14:30 Denis Koume University of Toulouse, France Invited speaker ID660- Computational biomedical imaging: inverse problems</p> <p>14:30-14:50 Radov Radeslav Lawrence Livermore National Laboratory, USA ID659- International standards for radiation protection instrumentation</p> <p>14:50-15:10 Ekaterina Sherstyukova Federal Research and Clinical Center of Intensive Care Medicine and Rehabilitology, Russian Federation ID647- Changes in RBCs under hypoxia: Spectrophotometry and AFM study</p> <p>15:10-15:30 Oleg Boyarkine EPFL, Switzerland ID662- Identification of isomeric molecules by spectroscopy of non-covalent complexes</p>	<p>BIOMATSEN & NANOMACH</p> <p style="text-align: center;">HALL 2</p> <p>Chairperson: Darya Alontseva</p> <p>14:00-14:30 Darya Alontseva D. Serikbayev East Kazakhstan Technical University, Kazakhstan Invited speaker ID456- Additive manufacturing of orthopedic implants with microplasma sprayed hydroxyapatite coatings</p> <p>14:30-15:00 Elif Begum Elcioglu Eskisehir Technical University, Turkey Invited speaker ID832- Nanofluids: The State of the Art and Future Outlook</p> <p>15:00-15:20 Vanja Kokol University of Maribor, Slovenia ID800- Antimicrobial nanocellulose-based porous microparticles as an alternative to toxic nano-biocides</p>	<p>INTERM & NANOMACH</p> <p style="text-align: center;">HALL 3</p> <p>Chairperson: Mariana Ionita</p> <p>14:00-14:30 Mariana Ionita University Politehnica of Bucharest, Romania ID839- Emerging strategies in bone regeneration</p> <p>14:30-15:00 Jules Thibault University of Ottawa, Canada ID831- Predicting the gas permeability and selectivity of mixed-matrix membranes</p> <p>15:00-15:30 Dehua Li Shandong University of Science and Technology, China ID706- Recognition of crude oil samples based on terahertz time-domain spectroscopy and principal component analysis</p>
15:30-15:40	COFFEE BREAK		

PARALLEL SESSIONS 15:40-17:40	<p style="text-align: center;">INTERM & INTERPHOTONICS</p> <p style="text-align: center;">HALL 1</p> <p>Chairperson: Søren Bredmose Simonsen</p> <p>15:40-16:10 Søren Bredmose Simonsen Technical University of Denmark, Denmark Invited speaker ID693-Combining Impedance Spectroscopy with Environmental TEM for solid state electrochemical experiments</p> <p>16:10-16:30 Viktorija Sergunova Federal Research and Clinical Center of Intensive Care Medicine and Rehabilitology, Russian Federation ID648- Using confocal laser scanning and atomic force microscopy to assess the effect of activators on neutrophils</p> <p>16:30-16:50 Dmitri Atiakshin xxxx IDxxx - xx</p> <p>16:50-17:10 Aleksei Kodukhov Terra Quantum AG, Switzerland ID653- Existing Qkd Protocols Enhancement via Continuous Monitoring of Artificial Leakages in the Transmission Line</p> <p>17:10-17:30 Valeria Pastushenko Terra Quantum AG, Switzerland ID654- On the Security of a Long-Distance Quantum Key Distribution Protocol Utilizing Optical Amplifiers</p>	<p style="text-align: center;">INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS</p> <p style="text-align: center;">HALL 2</p> <p>Chairperson: Lobat Tayebi</p> <p>15:40-16:10 Lobat Tayebi Marquette University School of Dentistry, USA Invited speaker ID478 - VEGF Delivery in Tissue Engineering to be Applied for Angiogenesis of Critical-Sized Craniomaxillofacial Defects</p> <p>16:10-16:30 Alexander Spirov The Institute of Scientific Information for Social Sciences RAS, Russian Federation ID472- Development of new microdroplet microfluidic techniques for the in vitro evolution of macromolecular devices using numerical methods</p> <p>16:30-16:50 Andrzej Kolek Rzeszów University of Technology, Poland ID637- Numerical simulations of electronic transport in type II superlattice device</p> <p>16:50-17:10 Merve Metin Yurt Arcelik, Turkey ID671- Impact of Laser Surface Texturing in Sustainability at Homes: Improvements in Energy Efficiency for Tumble Dryer Machines</p> <p>17:10-17:40 Uraib Sharaha Ben-Gurion University, Israel ID690- Rapid Characterization and Identification of Primary, Pre-Malignant, and Malignant Cells: Raman Spectroscopy-Based Machine Learning Algorithms</p>	
	19:30-21:30	DINNER WITH INTERM INVITED SPEAKERS	
TENTATIVE PROGRAM TUESDAY, APRIL 18, 2023			
PLENARY SESSION 10:30-11:15	Chairperson: A.Yavuz Oral		

11:15-11:30	COFFEE BREAK
PLENARY SESSION 11:30-12:15	Chairperson: A.Yavuz Oral Sarper Ozharar NEC Laboratories America, Inc., USA “ xxx ”
12:30-13:15	LUNCH
13:15-18:00	SOCIAL PROGRAM 13:15-18:00 GHOST TOWN & BLUE LAGOON (Gathering at Congress registration desk)

TENTATIVE PROGRAM WEDNESDAY, APRIL 19, 2023	
INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS	
HALL 1	
PARALLEL SESSIONS 10:00-11:20	Chairperson: Caglar Sivri 10:00-10:30 Caglar Sivri Bahçeşehir University, Turkey Invited speaker ID695- Novel Perspectives in Microscopy of Nanofibrous Materials 10:30-10:50 Jaroslav Serafinczuk Wrocław University of Science and Technology, Poland ID640- High-resolution X-ray diffraction edge geometry for epitaxial nanostructures characterization 10:50-11:20 Rustem Zairov Kazan (Volga region) Federal University, Russian Federation ID471- Lanthanide Chelate Nanoparticles as luminescent sensors
12:00	Hotel Check Out

PROGRAM LEGEND DESCRIPTIONS	
ID-	INTERM 2023 oral presentations
ID-	BIOMATSEN 2023 oral presentations
ID-	NANOMACH 2023 oral presentations
ID-	INTERPHOTONICS 2023 oral presentations