APMAS 2021 11th INTERNATIONAL ADVANCES IN APPLIED PHYSICS & MATERIALS SCIENCE CONGRESS & EXHIBITION

ENEFM 2021

7th INTERNATIONAL CONGRESS ON ENERGY EFFICIENCY
& ENERGY RELATED MATERIALS

8th INTERNATIONAL CONGRESS ON MICROSCOPY & SPECTROSCOPY

BIOMATSEN 2021
6th INTERNATIONAL CONGRESS ON BIOMATERIALS & BIOSENSORS

NANOMACH 2021

2nd INTERNATIONAL CONFERENCE ON

NANOMATERIALS, NANOFABRICATION AND

NANOCHARACTERIZATION

INTERPHOTONICS 2021

3rd INTERNATIONAL CONFERENCE ON PHOTONICS

RESEARCH

OCTOBER 17-23, 2021

Liberty Hotels Lykia, Oludeniz MUGLA / TURKEY

TENTATIVE P R O G R A M
FRIDAY, OCTOBER 15, 2021
REGISTRATION FOR EARLY ARRIVALS
(14:00 Check-in)

TENTATIVE PROGRAM		
SATURDAY, OCTOBER 16, 2021		
REGISTRATION (14:00 Check-in)		
SOCIAL PROGRAM • Saklıkent Jeep Safari • Paragliding in Oludeniz		
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	TENTATIVE P R O G R A M
	SUNDAY, OCTOBER 17, 2021
	HALL 1
SESSION 11:15	Chairperson: A.Yavuz ORAL OPENING CEREMONY
OPENING SESSION 11:00-11:15	A.Yavuz ORAL
11:15- 11:30	COFFEE BREAK
	Chairperson: A.Yavuz ORAL
PLENARY SESSION 11:30-12:15	M.Alper SAHINER Seton Hall University, USA
PLENA 11::	PLENARY SPEAKER "Phase Identification in HfZrO₂ Ferroelectric Thin Films: DFT and X-ray Absorption Fine-Structure Spectroscopy"

LUNCH		
APMAS & ENEFM & INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS		
HALL 1	HALL 2	
	APMAS & ENEFM & INTERM & BIOMAT	

Chairperson: Vladimir Popok

(14:00-14:30)

Vladimir Popok

Aalborg University, Denmark

(Invited speaker)

"Matrices of Gas Aggregated Metal Nanoparticles for Enhancement of SALDI MS"

(14:30-14:50)

Olga Hendrickson

Bach Institute of Biochemistry, Research Center of Biotechnology of the Russian Academy of Sciences, Russian Federation

ID387- Lateral flow immune sensors for phycotoxins: Improved assays and new reactants for sensitive detection

(14:50-15:10)

Gokcen Yasayan

Marmara University, Turkey

ID384- Nanotextured films encapsulating doxorubicin hydrochloride for cancer treatment

Chairperson: Ivan Kelnar

(14:00-14:30)

Ivan Kelnar

Institute of Macromolecular Chemistry, ASCR, Czech Republic

(Invited speaker)

"Nano-modified epoxy: effect of GO modification on formation of nacre-like structures"

(14:30-15:00)

M. Natália D. S. Cordeiro

LAQV-REQUIMTE, University of Porto, Portugal

(Invited speaker)

"Covalent Functionalization of Graphene by PAMAM Dendrimer and Its Implications on Graphene's Dispersion and Cytotoxicity"

(15:00-15:20)

Tarinee Nampitch

Kasetsart University, Thailand

ID691- Enhancement of the water-resistance properties of cassava residues by fatty acid addition

TENTATIVE P R O G R A M **MONDAY, OCTOBER 18, 2021**

HALL 1	HALL2	HALL 3
Chairperson: Sefik Suzer	Cahirperson: Tayfun Babadagli	Chairperson: Alexander Andrianov
(10:00-10:30) Sefik Suzer Bilkent University, Turkey (Invited speaker) "Localized X-Ray Photoelectron Impedance Spectroscopy for Liquid/Solid Interfaces" (10:30-11:00) Michal Horak Brno University of Technology, Czech Republic (Invited speaker) "Imaging of electric and magnetic near fields of plasmonic antennas by EELS" (11:00-11:30) Balazs Illes	Cahirperson: Taytun Babadagli (10:00-10:30) Tayfun Babadagli University of Alberta, Canada (Invited speaker) "Next Generation Techniques for Ecofriendly-High Efficiency Recovery of Heavy Oil/Bitumen" (10:30-11:00) Nicolea Marinescu Transilvania University of Brasov, Romania (Invited speaker) "Assessing the Evolution of the Romanian Renewable Energy Market" (11:00-11:20)	Chairperson: Alexander Andrianov (10:00-10:30) Alexander Andrianov Ioffe Physical Technical Institute, Russia (Invited Speaker) ID504-Excitonic THz luminescence from semiconductors (10:30-11:00) Humeyra ORUCU Ege Üniversitesi, Turkey (Invited Speaker) ID502-Luminescent Phosphors as Optical Temperature Sensing Materials (11:00-11:30)
Budapest University of Technology and Economics, Department of Electronics Technology, Hungary (Invited speaker) "Microstructural investigation of SnAgCu-TiO2 composite solder alloys" (11:30-12:00) Marek Gojdecki Military University of Technology, Poland (Invited speaker) "Characterization of crystalline microstructure in polycrystalline materials by analyzing powder X-ray diffraction patterns"	Ekaterina Politova Semenov Institute of Chemical Physics RAS, Russian Federation ID1805- Preparation and characterization of dielectric, ferroelectric and piezoelectric properties of lead-free ceramics on the base of sodium-bismuth titanate and sodium- potassium niobate (11:20-11:40) Igor Perevyazko Saint Petersburg State University, Russian Federation ID1865- Metallo-Supramolecular Assembles based on Terpyridine and Ferrocene units: Formation, Composition and Properties in solution	Ivana Panžić University of Zagreb, Croatia (Invited speaker) ID513-Influence of Al doping on morpholog electrical properties of ZnO nanorods (11:30-12:00) Jozef Chovan Slovak Centre of Scientific and Technical Information, International Laser Centre, Slo (Invited speaker) ID548-Temperature Stability of Fiber Array Photonics Chip Butt Coupling

	(11:40-12:00) Oytun Erdemir ADM Elektrik Dağıtım A.Ş, Turkey ID49- Differentiating Technical and Non- Technical Losses in Electricity Distribution Systems			
12:00- 13:15	LUNCH			
	SOCIAL PROGRAM			
13:15-18:00	13:15-18:00 FETHIYE CITY TOUR & THE ROCK TOMBS (Gathering at Congress registration desk)			

	TENTATIVE PROGRAM				
	Chairmanana A Vanua CRAL				
	Chairperson: A.Yavuz ORAL				
PLENARY SESSION 10:00-10:45	Darya ALONTSEVA East Kazakhstan Technical University, Kazakhstan PLENARY SPEAKER "Increasing the Efficiency of Microplasma Spraying of Zr Wire Coatings on Small Parts by Selecting the Optimal Spraying Parameters"				
10:45- 11:00					
	APMAS & ENEFN HALL 1	1 & INTERM & BIOMATSEN & NANOMACH & INT HALL 2	TERPHOTONICS HALL 3		
PARALLEL SESSIONS 11:00-12:10	Chairperson: Marek Godlewski (11:00-11:30) Marek Godlewski Institute of Physics Polish Academy of Sciences, Poland (Invited speaker) "Thin films of oxides grown by ALD – New bio and medical applications" (11:30-11:50) OANA-ELENA Carp "Petru Poni" Institute of Macromolecular Chemistry, Romania ID376- Evaluation of antioxidant properties using Electrochemistry combined with in vitro peroxidation and reducing assays (11:50-12:10) Maciej Trzaskowski Warsaw University of Technology, Centre for Advanced Materials and Technologies, CEZAMAT, Poland ID368- Portable Surface Plasmon Resonance Detector for COVID-19	Chairperson: SAULIUS Rudys (11:00-11:30) Saulius Rudys Institute of Applied Electrodynamics and Telecommunications, Vilnius University, Lithuania (Invited speaker) "Measurement of magnetic permeability using various methods" (11:30-11:50) Recep Yılmaz TUBITAK National Metrology Institute (TUBITAK UME), Turkey ID1857- Interlaboratory Pressure Comparison Measurement in Hydraulic Medium up to 400 MPa Range (11:50-12:10) Can Yesilyurt Istanbul University, Turkey ID1870- Fabrication and characterization of nano- scale devices based on anisotropic Weyl semimetals	Chairperson: Charles-Philippe Lienemann (11:00-11:30) Charles-Philippe Lienemann IFPEN, France (Invited speaker) "Catalysts Sorting and Mapping, What Laser Induced Breakdown Spectroscopy Can Afford In Order To Help Us?" (11:30-12:00) Gaku Egucki Institute of Solid State Physics, TU Wien (Invited speaker) "Giant transport anisotropy in a cubic thermoelectric material"		

12:10- 13:30	LUNCH				
	APMAS & ENEFM & INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS				
	HALL 1	HALL 2	HALL 3		
	Chairperson: Adina Arvinte	Chairperson: Juras Banys	Chairperson: Maarten Vanierschot		
PARALLEL SESSIONS 13:30-16:10	(13:30-14:00) Adina Arvinte "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania (Invited speaker) "Bimetallic Based Nanostructures for Electrochemical Sensing Applications" (14:00-14:30) Viacheslav Barsukov Kyiv National University of Technologies and Design, Ukraine (Invited speaker) "Composite Paints for Electromagnetic Shielding" (14:30-15:00) George R. Ivanov University of Architecture, Civil Engineering and Geodesy, Bulgaria (Invited Speaker) "Chemical Nano Biosensors Based on Novel Phenomena in Langmuir and Langmuir-Blodgett Films from A Lipids and Phospholipids" (15:00-15:20) Mariana Ionita University Politehnica of Bucharest, Romania ID327- Ectopic ostegenesis of bioinspired composite scaffold with graphene oxide filling and hydroxyapatite gradient density	(13:30-14:00) Juras Banys Vilnius University, Lithuania (Invited speaker) "PECULIARITIES OF DIPOLAR ORDERING IN MIXED CATION HALIDE PEROVSKITES" (14:00-14:30) Lavinia Curecheriu Alexandru loan Cuza University, Romania (Invited speaker) "Role of critical parameters (composition, phase superposition and grain size) on the electrocaloric properties of BaZrxTi1-xO3 ceramics" (14:30-14:50) Abdulazim Marafi Kuwait Institute for Scientific Research, Kuwait ID1821- The Role of R&D Toward Fossil Fuels to Clean Environmentally Friendly Fuels (14:50-15:10) Recep Yılmaz TUBITAK National Metrology Institute (TUBITAK UME), Turkey ID1858- The Influence of Liquids on Dynamic Pressure Transducers Performance by Using Dropping Mass Method (15:10-15:30) Recep Yılmaz TUBITAK National Metrology Institute (TUBITAK UME), Turkey ID1859- Calibration of Pressure Balances (15:30-15:50) Ulviye Bunyatova Baskent University, Turkey ID1841- Photosynthesized extra small silver nanoparticles: Structural evaluation and antimicrobial potential (15:50-16:10) Khaled Youssef Qatar University, Qatar ID1749- The effect of graphene structural integrity on the thermoelectric behavior of bismuth telluride	(13:30-14:00) Maarten Vanierschot KU Leuven, Belgium (Invited speaker) "COMBINED TRANSIENT HEAT AND MASS TRANSFER MODELING OF SOLAR POWERED FOOD DRYERS" (14:00-14:30) Venko Beschkov Bulgarian Academy of Sciences, Bulgaria (Invited speaker) "Bioelectrochemical Processes for Wastewater Treatment" (14:30-15:00) Bauer Ernst TU Wien, Austria (Invited speaker) "Improving thermoelectricity of Heusler compounds: stucture – property relations" (15:00-15:30) Baran Sarac Austrian Academy of Sciences - Erich Schmid Institute of Materials Science, Austria (Invited speaker) "Pd- and Ti-based Metallic Glasses: Electrochemical Hydrogen Activity and Corrosion Properties" (15:30-15:50) Vladislavs Bezrukovs Engineering Research Institute Ventspils International Radio Astronomy Centre of Ventspils University of Applied Sciences, Latvia ID56- Forecasting wind energy density distribution in the Baltic States based on NEWA atlas		

	TENTATIVE PROGRAM			
	Chairperson: A.Yavuz Oral Thomas WEBSTER Northeastern University, USA PLENARY SPEAKER "The Past, Present, and Future of Nanomedicine: Battling COVID-19, Making Implantable Sensors, 4D Printing and More!"			
PLENARY SESSION 09:00-09:45				
09:45- 10:00	COFFEE BREAK			
	APMAS & ENEFN	1 & INTERM & BIOMATSEN & NANOMACH & INT	ERPHOTONICS	
	HALL 1	HALL 2	HALL 3	
	Chairperson: George Kalosakas	Chairperson: Melinda David	Chairperson: Sergey Klimonsky	
	(10:00-10:30) George Kalosakas University of Patras, Greece (Invited Speaker) "Modeling phonons and mechanical properties of 2-dimensional materials" (10:30-11:00)	(10:00-10:30) Melinda David Transilvania University of Brasov, Romania (Invited Speaker) "Electrochemical biotransducers for label-free analysis of biomolecules: from proof of concept to medical applications"	(10:00-10:30) Sergey Klimonsky Lomonosov Moscow State University, Russian Federation (Invited Speaker) ID559-SERS substrates from inverse opal photonic crystal films	
PARALLEL SESSIONS 10:00-12:00	Seniz R. Kushan Akın Çankaya University, Turkey (Invited speaker) "Antibacterial Properties of Si ₃ N ₄ Based Ceramics" (11:00-11:20) Sanat Tolendiuly Institute of Combustion Problems, Kazakhstan ID1853- Study of Physico-Chemical Properties of Refractory Materials Synthesized from Metallurgical Waste (11:20-11:40) Sergey Gudoshnikov National University of Science and Technology «MISiS», Russian Federation ID1809- Scanning magnetometer based on a magnetoimpedance sensor for nondestuctive	(10:30-11:00) Philippe Mesini Institute Charles Sadron, France (Invited Speaker) "Study of the polymorphism of an organogel: nanotube to crystallites transition" (11:00-11:20) Alexander Georgievich Savelyev FSRC «Crystallography and Photonics» RAS, Russian Federation ID381- Cell-friendly hydrogel fiber fabrication for biomedical applications (11:20-11:50) Hikmat Hilal An-Najah National University, Palestinian Territory	(10:30-11:00) Vesna Janicki Ruder Boskovic Institute, Croatia (Invited Speaker) ID550-Optical characterization of spin coated Ag/polymer nanocomposite film on soda-lime glass substrate (11:00-11:30) Victor Koledov Kotel'nikov Institute of Radioengineering and Electronics Russian Academy of Sciences, Russian Federation (Invited Speaker) ID553-Mechanical Nano-Manipulation for the Novel Single Photon Sources with Hybrid Nanoantennas	
	evaluation of materials containing magnetic nanoparticles (11:40-12:00) Ramunas Levinas Vilnius University, Lithuania ID1744- SMARTELECTRODES: Scaling up from 2D to 3D Electrodes and Unifying Methods of their Catalytic Activity Characterization Using EIS	(Invited Speaker) ID488-Strategies to Recycle Metal Chalcogenide Film Solar Cells with High Photoelectrochemical Performance	(11:30-12:00) Svetlana Von Gratowski Kotel'nikov Institute of Radioengineering and Electronics Russian Academy of Sciences, Russian Federation (Invited Speaker) ID561-Creating CNT based devices for nanophotonics, nanoplasmonics, metasurfaces, THZ generation using nanomanipulation	
12:00- 13:15	LUNCH			
13:15- 18:00	SOCIAL PROGRAM			
	13:15-18:00 GHOST TOWN & BLUE LAG	OON		
	(Gathering at Congress registration desk)			

	TENTATIVE PROGRAM			
	THURSDAY, OCTOBER 21, 2021			
	APMAS & ENEFM & INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS			
	HALL 1	HALL 2		
	Chairperson: Vilko Mandic	Chairperson: MALGORZATA KAC		
PARALLEL SESSIONS 10:00-12:40	(10:00-10:30) Vilko Mandic University of ZagrebFa, Croatia (Invited Speaker) "Assessment of thin-films for thermochromic application using an inoperando approach" (10:30-11:00) Nerija Zurauskiene Vilnius Gediminas Technical University, Lithuania (Invited Speaker) "Magnetoresistive properties of advanced nanostructures based on graphene and lanthanum perovskite films for high magnetic field sensors applications" (11:00-11:30) Rafael Omar Torres Mendieta Technical University of Liberec, Czech Republic (Invited Speaker) "Laser-mediated fabrication of nanoparticles for the decoration of nanofibrous membranes and their usage in the oil/water separation sector" (11:30-12:00) Brindusa Dragoi Regional Institute of Oncology lasi, Romania (Invited Speaker) "2D Nanostructured Layered Double Hydroxides for MRI and Anticancer Drug Delivery" (12:00-12:20) Alexandr Sirotkin Constantine the Philosopher University in Nitra, Slovakia ID690- Toxic effect of metal nanoparticles on ovarian cells can be prevented by their chemical modification and plant molecules (12:20-12:40) Sabrine Khammassi ENSTA, France ID703- Compressive mechanical performance of an epoxy adhesive doped with CNT, GNP and CB nanofillers	Malgorzata Kac Institute of Nucelar Physics PAN, Poland (Invited Speaker) "Mössbauer Spectroscopy in studies of thin films and multilayers" (10:30-11:00) Guenther Rupprechter TU Wien, Austria (Invited Speaker) "In situ Photoemission Microscopy of Catalytic Surface Reactions" (11:00-11:30) Svetlana Rempel Ural Branch of the Russian Academy of Science, Russian Federation (Invited Speaker) Research&Development of inorganic nanoparticles for biomedical applications on the example of metal sulfides and metal oxides (11:30-12:00) Dmitry Wainstein Surface Phenomena Researches Group, Russian Federation (Invited Speaker) "Features of microstructure and composition of 18th century Dutch tiles revealed by SEM, XRF, XPS, and TOF-SIMS" (12:00-12:20) Aleksandr Shishlov JSC "SRC RF TRINITI", Russian Federation ID532- X-Ray microscope with high spatial resolution (of ≥ 2 microns) and time resolution of 1 ns (12:20-12:40) Elina Ushanova Peter the Great Polytechnic University, Russian Federation ID553- EBSD analysis application to study evolution of deformation structures in materials science		
12:40- 14:00	LUNCH			
	FOYER (Poster Session Area)			
14:00-	Chairperson: A. Yavuz Oral			
16:00	POSTER SESSION			
	(APMAS2021-ENEFM2021-INTERM2021-BIOMATSEN2021-NANOMACH2021-INTERPHOTONICS2021)			

TENTATIVE P R O G R A M FRIDAY, OCTOBER 22, 2021

APMAS & ENEFM & INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS HALL 1 HALL 2 Chairperson: Albina Valeeva Chairperson: Henrikas Cesiulis (10:00-10:30) (10:00-10:30)**Henrikas Cesiulis** Albina Valeeva JSC Elektronikos Perdirbimo Technologijos / Vilnius University, Vilnius, Institute of Solid-State Chemistry of the Ural Branch of the Russian Academy Lithuania of Sciences, Russian Federation (Invited Speaker) (Invited Speaker) PARALLEL SESSIONS 10:00-12:00 "SMARTELECTRODES: new way of recovering metals from electronic "In situ disordering of nonstoichiometric monoxides of IV-V groups by means waste by electrowinning" of transmission electron microscope" (10:30-11:00) (10:30-11:00) **Natalia Tintaru** Alexandra Ushakova Institute of Applied Physics/Vilnius University, Moldova Gazpromneft-Technological Partnership, Russian Federation (Invited Speaker) (Invited Speaker) "SMARTELECTRODES: electrodeposited foams/nanostructured with large "Enhanced Oil Recovery Methods for Shale Oil extraction from Bazhenov specific area suitable for catalytic, sensing and magnetic applications" Formation" (11:00-11:30) (11:00-11:30) Cristina Elena Ciomaga **Badica Petre** Institute of Interdisciplinary Research, Al. I. Cuza University of Iasi, National Institute of Materials Physics, Romania Romania (Invited Speaker) (Invited Speaker) "Bio-assessment of MgB2" "Effect of porosity on dielectric, ferroelectric and piezoelectric properties in BaTiO3- based materials" (11:30-12:00) **Kirill Larin** (11:30-11:50) University Of Houston, USA Cem Karakaya (Invited Speaker) ID475-Emerging Methods of Optical Elastography for Ocular Mesan Kilit A.Ş., Turkey Biomechanics ID1884- Process Improvement Using Biodegradable Material Within the Scope of Sustainability 12:00-**LUNCH** 13:15 SOCIAL PROGRAM 13:15-18:00 13:15-18:00 THE BOAT CRUISE AROUND EXCELLENT BAYS OF BLUE LAGOON & VISIT TO St. NICHOLAS ISLAND (Gathering at Congress registration desk)

TENTATIVE P R O G R A M SATURDAY, OCTOBER 23, 2021

APMAS & ENEFM & INTERM & BIOMATSEN & NANOMACH & INTERPHOTONICS

HALL 1

Chairperson: Janis Spigulis

(10:00-10:30) **Janis SPIGULIS** PARALLEL SESSIONS 10:30-11:30 University of Latvia, Latvia (Invited Speaker)

ID549-Advanced Multispectral and Multimodal Imaging for Skin Diagnostics

(10:30-10:50)

Zhumadil Baigunchekov

Satbayev University, Kazakhstan

ID1735- Kinematics of the "Ai-Gerim" Robot Arm

(10:50-11:10)

Alexei Meshalkin

Institute of Applied Physics, Moldova

ID1736- SMARTELECTRODES: In situ study of chalcogenide thin films growth during vacuum thermal evaporation

(11:10-11:30)

Saleem Akhtar

National University of Sciences and Technology, Pakistan

ID1781- Optimization of ball-milling parameters for the processing of samarium-cobalt magnetic compound using Taguchi approach

12:00 **Hotel Check Out**

PROGRAM LEGEND DESCRIPTIONS		
ID-	APMAS2021 oral presentations	
ID-	ENEFM2021 oral presentations	
ID-	INTERM2021 oral presentations	
ID-	BIOMATSEN2021 oral presentations	
ID-	NANOMACH2021 oral presentations	
ID-	INTERPHOTONICS2021 oral presentations	