

**APMAS 2021**

**11<sup>th</sup> INTERNATIONAL ADVANCES IN APPLIED PHYSICS & MATERIALS  
SCIENCE CONGRESS & EXHIBITION**

**ENEFM 2021**

**7<sup>th</sup> INTERNATIONAL CONGRESS ON ENERGY EFFICIENCY & ENERGY  
RELATED MATERIALS**

**INTERM 2021**

**8<sup>th</sup> INTERNATIONAL CONGRESS ON MICROSCOPY & SPECTROSCOPY**

**BIOMATSEN 2021**

**6<sup>th</sup> INTERNATIONAL CONGRESS ON BIOMATERIALS & BIOSENSORS**

**NANOMACH 2021**

**2<sup>nd</sup> INTERNATIONAL CONFERENCE ON NANOMATERIALS,  
NANOFABRICATION AND NANOCHARACTERIZATION**

**INTERPHOTONICS 2021**

**3<sup>rd</sup> INTERNATIONAL CONFERENCE ON PHOTONICS RESEARCH**

**OCTOBER 17-23, 2021**

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

**POSTER PROGRAM**  
**THURSDAY, OCTOBER 21, 2021**  
**14:30-16:30**

**FOYER (Poster Session Area)**

Chairperson: A. Yavuz Oral

**POSTER SESSION**

**(APMAS2021-ENEFM2021-INTERM2021-BIOMATSEN2021-NANOMACH2021- INTERPHOTONICS2021)**

ID	Title	Contact Author
<b>APMAS1718</b>	Growth conditions influence on Quantum Cascade Lasers	Karolis Stašys
<b>APMAS1735</b>	Kinematics of the “Ai-Gerim” Robot Arm	Zhumadil Baigunchekov & Natalia Tintaru (Tsyntsaru)
<b>APMAS1740</b>	SMARTELECTRODES: Pre-sulfurization assisted defect treatment in CZTSSe absorbing material	Vidas Pakstas
<b>APMAS1742</b>	SMARTELECTRODES: electrochemistry of bismuth interlayers in (Bi <sub>2</sub> ) <sub>m</sub> (Bi <sub>2</sub> Te <sub>3</sub> ) <sub>n</sub> superlattice	Aliaksei Bakavets
<b>APMAS1743</b>	SMARTELECTRODES: Influence of the composition on the properties of the modified surface layer generated on steel by electrospark alloying	Vladimir Petrenko
<b>APMAS1754</b>	How stenosis can influence the hemodynamics flow in a coronary artery	Liubov Toropova
<b>APMAS1755</b>	Towards nucleation and evolution of ellipsoidal particles in metastable liquids	Dmitri Alexandrov
<b>APMAS1757</b>	Radiation resistance of synthesized under different conditions ZrO <sub>2</sub> micro- and nanostructured compacts	Alma Dauletbekova
<b>APMAS1759</b>	In-depth Raman spectroscopy study of radiation damages induced by swift heavy ion irradiation in polycrystalline Si <sub>3</sub> N <sub>4</sub>	Abdirash Akilbekov
<b>APMAS1763</b>	CARBON/COKE FORMATION ON THEVARIOUS SYNTHETIC AND NATURAL CARRIER-BASED NICKEL OXIDE CATALYST SURFACES IN THE DRM REACTION	Manshuk Mambetova
<b>APMAS1765</b>	THE BOUNDARY INTEGRAL EQUATION FOR THE GROWTH OF A 2D DENDRITE IN THE PRESENCE OF CONVECTION	Ekaterina Titova

<b>APMAS1772</b>	INFLUENCE OF THE NATURE OF CARRIERS ON THE ACTIVITY OF THE IRON CATALYST IN THE DECOMPOSITION OF METHANE	Gaukhar Yergaziyeva
<b>APMAS1774</b>	Degradation diagnosis and durability assessment of a SRT composite material submitted to endurance test	Eduard-Marius Lungulescu
<b>APMAS1775</b>	Cu-Au nanoparticle solutions with broad-spectrum antimicrobial properties used as disinfectants for highly contaminated surfaces	Eduard-Marius Lungulescu
<b>APMAS1777</b>	Formation of surface self-assembled organosilicon nanolayers on carbon steel and its effect on electrochemical and corrosion behavior of the metal	Maxim Petrunin
<b>APMAS1782</b>	The mechanical properties of Mediterranean wild silk fibres	Ružica Brunšek
<b>APMAS1784</b>	Improvement of liquid Sulfur filtration process	Meriem ESSAKHRAOUI
<b>APMAS1785</b>	Improvement of phosphoric acid concentration unit by scale reduction	Meryem CHAFAI
<b>APMAS1789</b>	Ship Loading and Capacity Utilization	Nourhan I. Ghoneim
<b>APMAS1791</b>	Development of Biodegradable Nonwoven Agrotexiles from Natural and Renewable Sources	Dragana Kopitar
<b>APMAS1796</b>	Biodegradability of Modacryl/Cotton Plied Yarns	Ivana Schwarz
<b>APMAS1797</b>	Influence of Carbon Yarn Arrangement on Fabric Electrical Conductivity	Ivana Schwarz
<b>APMAS1798</b>	Statistical analysis of the dynamic enhancement of reinforcement steel properties: The Case of the Johnson-Cook model	Egidijus Rytas Vaidogas
<b>APMAS1799</b>	Different Yarn Behaviours During the Abrasion Process	Ana Kalazic
<b>APMAS1800</b>	Investigation of linker rotation dynamics in ZIF-8, ZIF-67 and ZIF-90 metal-organic frameworks using broadband dielectric spectroscopy	Juras Banys
<b>APMAS1801</b>	Water Vapour Transmission of Thermal Protective Woven Fabrics	Snježana Brnada
<b>APMAS1810</b>	New design of orthosis	Nicolae Dan BATALU
<b>APMAS1815</b>	New intuitive regularizing approaches for deconvolution problems	Dmitry Sorokoletov
<b>APMAS1816</b>	Investigation of the Morphology of Red Blood Cells in those who died from Hypothermia by Scanning Electron and Atomic Force Microscopy	Revo Alekseev
<b>APMAS1818</b>	Structural – energy state of adsorption layer of YSZ-nanopowder system at hydration	Svitlana Lyubchyk

<b>APMAS1827</b>	Morphological characterization of polydopamine coated surfaces	Diana Bogdan
<b>APMAS1828</b>	Solid-state NMR as a powerful tool in polydopamine characterization	Claudiu Filip
<b>APMAS1833</b>	Solder layer influence on the Thermal Parameters of Insulated Gate Bipolar Transistors (IGBTs)	Agata Skwarek
<b>APMAS1836</b>	Using One Dimensional Convolutional Neural Networks for Classifying the Vibration of Process Pipework	Jamil Renno
<b>APMAS1838</b>	Mechanical Characteristics of Ultra-High Performance Steel FRC Made with Recycled Concrete Aggregates	Wael Alnahhal
<b>APMAS1849</b>	The development of manufacturing technology of refractory products from waste of ferrochrome production	Sergey Fomenko
<b>APMAS1856</b>	Oxidation of CO and benzene over metal nanoparticles loaded on hierarchical ZSM-5 zeolite	Yuri Kalvachev
<b>APMAS1881</b>	Synthesis of narrowband gap binary semiconductor for enhancement of thermoelectric figure of merit	Gotan Jain
<b>APMAS1894</b>	SMARTELECTRODES: Electrospark Alloying One of the Advanced Methods for Physical-chemical Processing of Metals at "TOPAZ"	Inna Linnic
<b>APMAS1901</b>	Azimuthally asymmetric gyrotron cavities for selective excitation of symmetric TE modes	Mikhail Proyavin
<b>APMAS1903</b>	Gyrotron complexes for microwave material processing	Mikhail Proyavin
<b>APMAS1905</b>	Properties of PbO-Bi <sub>2</sub> O <sub>3</sub> -Ga <sub>2</sub> O <sub>3</sub> glasses modified by addition of Ag <sub>2</sub> O and Sb <sub>2</sub> O <sub>3</sub> to form Ag nanoparticles	Petr Kostka
<b>APMAS1906</b>	PbCl <sub>2</sub> – Bi <sub>2</sub> O <sub>3</sub> – TeO <sub>2</sub> glasses: preparation and physical properties	Petr Kostka
<b>ENEFM29</b>	3 $\omega$ thermal conductivity measurements on type-I clathrate nanowires	Monika Budnowski
<b>ENEFM30</b>	Gold-Nickel Catalysts Supported on Titanium for Borohydride Oxidation Designed by Femtosecond Laser Structuring and Chemical Modification	Eugenijus Norkus
<b>ENEFM31</b>	Conversion of Black Liquor to Highly Active Nitrogen-Doped Carbon for Oxygen Reduction Electrocatalysts	Loreta Tamasauskaite-Tamasiunaite
<b>ENEFM33</b>	Synthesis and characterization of 3D NiCu foams on Ti surface for borohydride oxidation	Aldona Balčiūnaitė

<b>ENEFM38</b>	Manganese Nanoparticles Doped Graphitic Carbon Nitride Electrocatalyst for Oxygen Reduction	Ausrine Zabielaite
<b>ENEFM40</b>	Gold Nanoparticles Modified 3D Copper-Nickel Metallic Foams for the Electrooxidation of Sodium Borohydride	Žana Činčienė
<b>ENEFM47</b>	Implications of Next Generation Memory Materials for Green Data Centers	Hyokyung Bahn
<b>ENEFM63</b>	Band gap Modified Metal oxide Nanomaterials for Visible Light Absorption	Reenamole G Georgekutty
<b>INTERM540</b>	X-Ray apparatus with spatial resolution of $\geq 2$ microns and time resolution of 1 ns.	Aleksandr Gribov
<b>INTERM550</b>	The study of pH and aging time influence on waste derived-MCM-41 mesoporous silica material properties by microscopic and spectroscopic analysis	Jarosław Madej
<b>INTERM551</b>	Sorption potential towards CO <sub>2</sub> and microscopic analysis of Na-X and Na-A zeolites obtained from waste	Rafał Panek
<b>BIOMATSEN358</b>	Hydrogen production using selective serotonin reuptake inhibitors in microbial electrolysis cells	Tunc Catal
<b>BIOMATSEN369</b>	Saccharide interactions with glucose-binding proteins	Maciej Trzaskowski
<b>BIOMATSEN378</b>	For Rapid Determination of Target Bacterium by Using Magnetic Preconcentration of Samples an Adaptable Approach for QCM System	Gülay BAYRAMOĞLU
<b>BIOMATSEN395</b>	Development of a lateral flow biosensor using gold nanoparticle conjugated antibodies for point-of-care detection of uropathogenic Escherichia coli	Cebraıl Karakus
<b>NANOMACH683</b>	Triple perovskite-based triboelectric nanogenerator: a facile method of energy harvesting and self-powered information generator	Igor Djerdj
<b>NANOMACH691</b>	Enhancement of the water-resistance properties of cassava residues by fatty acid addition	Tarinee Nampitch
<b>NANOMACH704</b>	A Multi-Technique Approach to Characterize the Adsorption of Plasma Proteins on Layered Double Hydroxides	Brindusa Dragoi

<b>NANOMACH706</b>	Efficacy of dental materials in terms of apparent mineral density restoration assessed by X-ray microtomography	Evgeniy Sadyrin
<b>NANOMACH707</b>	Mathematical modeling of indentation of FGM coatings	Andrey Vasiliev
<b>NANOMACH708</b>	Simplified analytical solution of the contact problem on indentation of a coated half-space by a conical punch for interpretation of nanoindentation tests	Sergei Aizikovich
<b>NANOMACH709</b>	Synthesis and research of ZnO nanorods for applications in nanoelectronics	Andrei Nikolaev
<b>NANOMACH714</b>	New graphene structures for energy storage in lithium-ion batteries	Karolina Wenelska
<b>INTERPHOTONICS544</b>	Study Of Human Platelets Spectral Homogeneity By SERS Technique	Ilia Samusev
<b>INTERPHOTONICS551</b>	Spectroscopic ellipsometry characterization of glass poling and electric field assisted dissolution processes	Jordi Sancho Parramon