

APMAS 2019

9th INTERNATIONAL ADVANCES IN APPLIED PHYSICS & MATERIALS
SCIENCE CONGRESS & EXHIBITION

ENEFM 2019

5th INTERNATIONAL CONGRESS ON ENERGY EFFICIENCY & ENERGY
RELATED MATERIALS

OCTOBER 22-28, 2019

Sentido Lykia Resort & Spa-Liberty Hotels Lykia, Oludeniz
MUGLA / TURKEY

TENTATIVE PROGRAM <i>SUNDAY, OCTOBER 20, 2019</i>	
<i>14:00-23:30</i>	REGISTRATION FOR EARLY ARRIVALS <i>(14:00 Check-in)</i>

TENTATIVE PROGRAM <i>MONDAY, OCTOBER 21, 2019</i>	
<i>9:00-23:30</i>	REGISTRATION <i>(14:00 Check-in)</i>

TENTATIVE PROGRAM <i>TUESDAY, OCTOBER 22, 2019</i>	
HALL 1	
OPENING SESSION <i>11:00-11:15</i>	Chairperson: A. Yavuz Oral OPENING CEREMONY
PLENARY SESSION <i>11:15-12:00</i>	Chairperson: A. Yavuz Oral Daining Fang <i>(Plenary speaker)</i> <i>"Smart Structures and 4D printing"</i>

12:30-14:00	LUNCH		
PARALLEL SESSIONS 14:00-15:10	APMAS		ENEFM
	HALL 1	HALL 2	HALL 5
	<p><i>Chairperson: Arkady Zhukov</i></p> <p>(14:00-14:30) Arkady Zhukov University of Basque Country, Spain "Stress- induced Magnetic Anisotropy Enabling Engineering of Magnetic Softness and Domain Wall Dynamics of Fe-rich Amorphous Microwires"</p> <p>(14:30-14:50) Masahiro Mikuriya Kwansei Gakuin University, Japan ID1228- Magnetic Materials Based on Dinuclear Copper(II) Trimethoxybenzoates</p> <p>(14:50-15:10) Azza Hadj Youssef INRS, Centre Énergie Matériaux et Télécommunications, Canada ID1376- Giant thermally modulated and stable step bunching on epitaxially grown SrTiO₃ thin films on vicinal MgO (100) terraces</p>	<p><i>Chairperson: Illia Fedorin</i></p> <p>(14:00-14:30) Illia Fedorin National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Ukraine "Topology states of iso-frequency surfaces of a hypercrystal with ferrite and semiconductor layers"</p> <p>(14:30-14:50) Yasin Bozkurt Yilmaz Yıldız Technical University / Gizem Frit R&D Center, Turkey ID1447- Investigation of Nickel Effects on Matt Cast Iron Enamel</p> <p>(14:50-15:10) Nurullah Copoglu Yıldız Technical University / Gizem Frit R&D Center, Turkey ID1446- Optimizing the Migration Behavior of Vitreous Enamel Coatings</p>	<p><i>Chairperson: Peter Križan</i></p> <p>(14:00-14:30) Peter Križan STU in Bratislava, Slovakia "Optimizing of densification process parameters for solid biofuels production using the mathematical modelling"</p> <p>(14:30-14:50) Loreta Tamašauskaitė-Tamašiūnaitė Center for Physical Sciences and Technology, Lithuania ID36- Nitrogen-doped carbon supported gold nanoparticles as an efficient catalyst for glucose and ethanol electro-oxidation</p> <p>(14:50-15:10) Eulbum Lee & Jaemin Cho Pohang University of Science and Technology, Korea, Republic Of ID40- Detail Engineering Completion Rating Index System (DECRIIS) for Optimal Initiation of Construction Works to Improve Contractors' Schedule-Cost Performance for Offshore Oil and Gas EPC Projects</p>
15:10-15:30	COFFEE BREAK		
PARALLEL SESSIONS 15:30-16:30	APMAS		ENEFM
	HALL 1	HALL 2	HALL 5
	<p><i>Chairperson: Marjeta Maček Kržmanc</i></p> <p>(15:30-16:00) Marjeta Maček Kržmanc Jožef Stefan Institute, Slovenia "Compositional engineering of (Ba, Ca)TiO₃-based solid-solution plates: piezoelectric characteristics and phase transitions behavior"</p> <p>(16:00-16:30) Jinyang Xu Shanghai Jiao Tong University, China "Machining Challenges and Solutions to Aerospace Grade Composite-Titanium Stacks"</p>	<p><i>Chairperson: Eduard Gevorgyan</i></p> <p>(15:30-16:00) Eduard Gevorgyan <i>Plekhanov Russian University of Economics, Russian Federation</i> "The Interaction Of Transition Radiation Of A Charged Particle With An Anisotropic Magnetodielectric Filling Of A Waveguide"</p> <p>(16:00-16:30) Zhen WU Xi'an Jiaotong University, China "Computational design of novel high-capacity Mg-based materials for hydrogen storage"</p>	<p><i>Chairperson: Carmen Tuca</i></p> <p>(15:30-16:00) Carmen Tuca I Horia Hulubei National Institute for Physics and Nuclear Engineering, IFIN-HH, Romania "Radiological issues on the VVR-S nuclear research reactor buffer tank dismantling"</p> <p>(16:00-16:30) Xujin Bao Loughborough University, UK "Poly(2,5-benzimidazole) Nanocomposite PEMs for FC Application"</p>
16:30-17:30	COFFEE BREAK		
17:30-18:30	<p>FOYER (Poster Session Area)</p> <p>Chairperson: A. Yavuz Oral</p> <p>POSTER SESSION – I</p> <p>(APMAS2019-ENEFM2019)</p>		

TENTATIVE PROGRAM
WEDNESDAY, OCTOBER 23, 2019

		APMAS	ENEFM
		HALL 1	HALL 5
PARALLEL SESSIONS 10:00-12:00	<i>Chairperson: Andreja Bencan Golob</i>		<i>Chairperson: Yaeko Mitsumori</i>
	<i>(10:00-10:30)</i>	<p>Andreja Bencan Golob Jozef Stefan Institute, Slovenia "Designing domain walls in bismuth ferrite by controlling the type and concentration of defects"</p>	<p style="text-align: center;"><i>(10:00-10:30)</i></p> <p>Yaeko Mitsumori Osaka University, Japan "Japan gears up Renewable Energy Usage after 3.11 – A Case Study of a Small Hydropower Plant in Osaka"</p>
	<i>(10:30-11:00)</i>	<p>Vitezslav Benda Czech Technical University in Prague, Czech Republic "Photovoltaic cells and modules for future energy systems"</p>	<p style="text-align: center;"><i>(10:30-11:00)</i></p> <p>Nikola Biliškov Rudjer Boskovic Institute, Zagreb, Croatia "Single- and Bimetallic Amidoboranes - Solid-State Synthesis and Decomposition"</p>
	<i>(11:00-11:30)</i>	<p>Matsuo Masaru Dalian University of Technology, China "Heat Resistance of Conductive Filler-Polymer Composites evaluated by Dynamic Tensile Modulus under Electric field and Dielectric Measurement"</p>	<p style="text-align: center;"><i>(11:00-11:30)</i></p> <p>Monica Siroux INSA STRASBOURG ICUBE STRASBOURG UNIVERSITY, France "Hybrid photovoltaic/thermal PVT panels. State of the art and recent R&D activities"</p>
<i>(11:30-12:00)</i>	<p>Miroslav Cvetinovic University of Novi Sad, Serbia "Challenges Of Infrared Reflectography In Artwork Conservation Process"</p>	<p style="text-align: center;"><i>(11:30-12:00)</i></p> <p>Moo Hwan Cho Yeungnam University, Korea, Republic Of "Development of anode and cathode materials for Microbial Fuel Cells"</p>	
12:00-13:15	LUNCH		
13:15-18:00	<p>SOCIAL PROGRAM</p> <hr/> <p>13:15-18:00 GHOST TOWN & BLUE LAGOON TOUR</p> <hr/> <p><i>(Gathering at Congress registration desk)</i></p>		

TENTATIVE PROGRAM
THURSDAY, OCTOBER 24, 2019

PLENARY SESSION 09:45-10:30	<p>Chairperson: Ersin Kayahan</p> <p style="text-align: center;">Shizhang Qiao</p> <p style="text-align: center;">The University of Adelaide, Australia</p> <p style="text-align: center;"><i>(Plenary speaker)</i></p> <p style="text-align: center;">“XXXXX”</p>	
10:30-11:00	COFFEE BREAK	
PARALLEL SESSIONS 11:00-12:30	APMAS	ENEFM
	HALL 1	HALL 5
	<p>Chairperson: Nerija Zurauskiene</p> <p>(11:00-11:30) Nerija Zurauskiene Center for Physical Sciences and Technology, Lithuania “Nanostructured lanthanum manganite films grown by pulsed-injection MOCVD: tuning the magnetoresistive properties for magnetic field sensors applications”</p> <p>(11:30-12:00) Satoshi Kokado Shizuoka University, Japan “Theoretical Study on Anisotropic Magnetoresistance Effect for Ferromagnets”</p> <p>(12:00-12:30) Victor Rouco Gomez CNRS Thales, Université Paris-Sud, France “Tunnel Electroresistance in Superconducting/Ferroelectric Junctions”</p>	<p>Chairperson: Abosalah Elmehdi</p> <p>(11:00-11:30) Abosalah Elmehdi Azzaytuna University, Libya “Frequency Synchronization of an PV Generation System Using PLL Technique”</p> <p>(11:30-12:00) Thomas Waas OTH Regensburg, Germany “Energy monitoring and saving in medium-sized companies”</p> <p>(12:00-12:20) Waqas Ul Arifeen Yeungnam University, Korea, Republic Of ID39-Thermally stable hybrid (polyacrylonitrile based) electrospun nanofibrous membrane for separator of lithium ion batteries</p>
12:30-14:00	LUNCH	
PARALLEL SESSIONS 14:00-16:00	APMAS	ENEFM
	HALL 1	HALL 5

	<p><i>Chairperson: Gabriel Potirniche</i></p> <p><i>(14:00-14:30)</i> Gabriel Potirniche University of Idaho, USA “Development of computational simulation tools for fatigue and creep-fatigue crack growth in metallic alloys at elevated temperatures”</p> <p><i>(14:30-15:00)</i> Li XIN Institute of Metal Research, CAS, China “Effects of Si addition on oxidation of TiAlN coating deposited on titanium and TiAl based alloys”</p> <p><i>(15:00-15:30)</i> Felix N Chukhovskii Shubnikov Institute of Crystallography, Federal Scientific Research Centre “Crystallography and Photonics”, Russian Academy of Sciences, Russia “Challenges Of The Inverse Problem Of The X-Ray Diffraction Tomography. Theory, Formulas And Computer Iterative Algorithms Towards The 3D Recovery Of Elastic Static Displacement Field Around The Point-Defects In A Crystal”</p> <p><i>(15:30-16:00)</i> Alexey Mironov ISP SB RAS, Russian Federation “Effects of perforation on thin superconducting films”</p>	<p><i>Chairperson: Balázs Kulcsár</i></p> <p><i>(14:00-14:30)</i> Balázs Kulcsár University of Debrecen Faculty of Engineering, Hungary “Settlement renewable energy production and sharing energy”</p> <p><i>(14:30-15:00)</i> Elisa Carlucci BHGE, Italy “Preventive Maintenance And Spare Parts Management Optimization In Natural Gas Pipelines Operating Under Variable Conditions Across The Year”</p> <p><i>(15:00-15:30)</i> Sunney Chan Academia Sinica, Taiwan “Taming methane”</p> <p><i>(15:30-16:00)</i> Jim P. Zheng Florida State University, USA “Pre-lithated carbon electrodes for high power and long cycle life energy storage cells”</p>
<p>16:00-17:00</p>	<p>COFFEE BREAK</p>	
<p>17:00-18:00</p>	<p>FOYER (Poster Session Area)</p> <p>Chairperson: A. Yavuz Oral</p> <p>POSTER SESSION – II</p> <p>(APMAS2019-ENEFM2019)</p>	

TENTATIVE PROGRAM
FRIDAY, OCTOBER 25, 2019

	APMAS	ENEFM
	HALL 1	HALL 5
PARALLEL SESSIONS 10:00-12:00	<p><i>Chairperson: Serap Dalgic</i></p> <p><i>(10:00-10:30)</i> Serap Dalgic Trakya University, Turkey " 2D Ru-Ni/ Graphene Hybrid Nanostructures : A Molecular Dynamics Investigation"</p> <p><i>(10:30-11:00)</i> George Kalosakas University of Patras, Greece " Uniaxial compression and buckling of graphenes"</p> <p><i>(11:00-11:30)</i> Yoothana Suansook Defence Technology Institute, Thailand " Past Present and Future of Fractional Dynamics"</p> <p><i>(11:30-12:00)</i> Ying Li Institute of Metal Research, China " Probing the combined self-repairing and antifouling multi-functionalities of polymer coatings doped with clay nanotubes treated with pH-responsive hydrogels: combined spectroscopic and EIS approaches"</p>	<p><i>Chairperson: Jerzy Mizeraczyk</i></p> <p><i>(10:00-10:30)</i> Jerzy Mizeraczyk Gdynia Maritime University, Poland " Hydrogen production by microwave plasma biogas reforming"</p> <p><i>(10:30-11:00)</i> Viacheslav Nikitin Melentiev Energy Systems Institute of SB RAS, Russian Federation "The Modeling of planned Hydroelectric Power Plants influence on the ecosystem"</p> <p><i>(11:00-11:30)</i> Zhixin Wang Shanghai Jiao Tong University, China " Research on the Application of Multi-Energy Complementary Coordination and Optimization of Distributed Renewable Energy"</p> <p><i>(11:30-12:00)</i> Juan M. Guerra Institut für Theoretische Physik, Germany "XXXX"</p>
12:00-13:15	LUNCH	
13:15-18:00	<p>SOCIAL PROGRAM</p> <p>13:15-18:00 FETHIYE CITY/SHOPPING TOUR & THE ROCK TOMBS</p> <p><i>(Gathering at Congress registration desk)</i></p>	

TENTATIVE PROGRAM
SATURDAY, OCTOBER 26, 2019

PLENARY SESSION 09:45-10:30	<p><i>Chairperson: Ersin Kayahan</i></p> <p style="text-align: center;">Geoffrey Qiping Shen</p> <p style="text-align: center;">The Hong Kong Polytechnic University, Hong Kong</p> <p style="text-align: center;"><i>(Plenary speaker)</i></p> <p style="text-align: center;">"XXXXX"</p>
10:30-11:00	COFFEE BREAK

PARALLEL SESSIONS 11:00-12:30	APMAS	ENEFM
	HALL 1	HALL 5
	<p><i>Chairperson: Pinqiang Dai</i></p> <p>(11:00-11:30) Pinqiang Dai Fujian University of Technology, China “Study on microstructure and properties of high-entropy alloys prepared by powder metallurgy”</p> <p>(11:30-12:00) Bohdan Padlyak University of Zielona Góra, Poland “Enhancement of the RE3+ ions luminescence in RE-Ag co-doped borate glasses”</p> <p>(12:00-12:30) Yuan Yuan Chongqing University, China “Improvement of the Sulfur Corrosion Resistance of Copper Windings by using Grain Boundary Engineering (GBE) and Its Effect for Oil-paper Insulation”</p>	<p><i>Chairperson: Zhiqiang Wu</i></p> <p>(11:00-11:30) Zhiqiang Wu Xi'an Jiaotong University, China “Waste energy recovery from furnace slag of steel industrial based on chemical method: thermochemical behavior of biomass”</p> <p>(11:30-12:00) Bo-Lun Yang Xi'an Jiaotong University, China “Synergistic Effect from Co-pyrolysis of Low-rank coal and Microalgae: Products Distribution, kinetic characteristics, and Radical Analysis”</p> <p>(12:00-12:30) Hsiharng Yang National Chung Hsing University, Taiwan “Non-Platinum Gas Diffusion Electrode Preparation for Anion Exchange Membrane Fuel Cells”</p>
12:30-14:00	LUNCH	
PARALLEL SESSIONS 14:00-16:10	APMAS	ENEFM
	HALL 1	HALL 5
	<p><i>Chairperson: Jiri Brozek</i></p> <p>(14:00-14:30) Jiri Brozek University of Chemistry and Technology Prague, Czech Republic “Advanced polymeric materials and preserving of polymer objects”</p> <p>(14:30-14:50) Yunus Emre Simsek Bilecik Şeyh Edebali University, Turkey ID1397- Modeling and optimization of experimental parameters for the removal of heavy metal and production of porous adsorbents by RSM and ANN techniques</p> <p>(14:50-15:10) Roman Semenko Novosibirsk State University, Russian Federation ID1216- Vortex motion of an incompressible polymeric liquid</p> <p>(15:10-15:40) Aijun Yang Xi'an Jiaotong University, China “Gas Sensors Based on Nanomaterials in State Monitoring and Fault Diagnosis of Power Equipment”</p> <p>(15:40-16:10) Zhenyang Zhong Fudan University, China “Si-based microcavities with embedded GeSi nanostructures: fabrication and unique optoelectronic properties”</p>	<p><i>Chairperson: Charlotta Sanders</i></p> <p>(14:00-14:30) Charlotta Sanders World Nuclear Association, UK “Achieving Energy Efficiency through the Harmonization of the Energy Market”</p> <p>(14:30-14:50) Manuel Frondel RWI, Germany ID21- Drivers' Response to Fuel Taxes and Efficiency Standards: Evidence from Germany</p> <p>(14:50-15:10) Marcin Holub West Pomeranian University of Technology, Poland ID133- Energy efficiency of small waste water treatment plants in the Baltic Sea region – a comparative case study</p> <p>(15:10-15:40) Janusz Smulko Politechnika Gdańska, Poland “Fluctuations phenomena in Electrostatic double-layer capacitors (EDLCs)”</p> <p>(15:40-16:10) Flox Cristina Aalto University, Finland “Enhancing the performance of all-copper redox flow batteries by ion exchange membranes”</p>
16:10-17:00	COFFEE BREAK	

17:00-18:00	<p>FOYER (Poster Session Area)</p> <p>Chairperson: A. Yavuz Oral</p> <p>POSTER SESSION – III</p> <p>(APMAS2019-ENEFM2019)</p>
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TENTATIVE PROGRAM		
SUNDAY, OCTOBER 27, 2019		
	APMAS	ENEFM
	HALL 1	HALL 5
PARALLEL SESSIONS 10:00-12:00	<p>Chairperson: Minoru Watanabe</p> <p>(10:00-10:30) Minoru Watanabe Shizuoka University, Japan "Radiation-hardened system design"</p> <p>(10:30-11:00) Guozhang Wu East China University of Science & Technology, China "β-Relaxation Governs Damping Stability of Phenol/Acrylate Hybrids"</p> <p>(11:00-11:30) Seongtae Bae University of South Carolina, USA "Magnetic Nanofluid Hyperthermia with Exceptionally High AC Magnetic Heat Induction Using Newly Developed Mg shallow-doped γ-Fe₂O₃ Nanoparticles for Cancer Clinics"</p> <p>(11:30-12:00) Andrey Drozdov ITMO University, Russian Federation "Sol-gel derived magnetite for biomedical applications"</p>	<p>Chairperson: Vladislav A. Sadykov</p> <p>(10:00-10:30) Vladislav A. Sadykov Boriskov Institute of catalysis SB RAS, Novosibirsk State University, Russian Federation "Nanocomposite Catalysts Of Biofuels Transformation Into Syngas: Design, Reaction Mechanism And Performance"</p> <p>(10:30-11:00) Jan Vcelak CVUT UCEEB, Czech Republic "Novel Heating and Cooling Technology as a Flexible Load for Optimized PV Utilization in buildings"</p> <p>(11:00-11:30) Emmanuel Stamatakis NCSR Demokritos, Greece "New materials for efficient hydrogen storage and hydrogen compression"</p> <p>(11:30-12:00) Jaakko Puhakka Tampere University, Finland "xxx"</p>
12:00-13:15	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>	

TENTATIVE PROGRAM
MONDAY, OCTOBER 28, 2019

APMAS & ENEFM	
HALL 1	
PARALLEL SESSIONS 10:00-11:30	<p><i>Chairperson: Jianxin Geng</i></p> <p><i>(10:00-10:30)</i> Jianxin Geng Beijing University of Chemical Technology, China "Carbon Nanomaterials/Polymers Nanocomposites and Electrochemical Energy Storage"</p> <p><i>(10:30-11:00)</i> Yoshiei KATO Okayama University, Japan "Possibility of silicon recycling from waste crystalline solar cells by a cascade process of metallic floatation and chemical etching"</p> <p><i>(11:00-11:30)</i> Alexander Vasiliev Nuclear Safety Institute, Russian Federation "xxx"</p>
12:00	<i>Hotel Check Out</i>

PROGRAM LEGEND DESCRIPTIONS	
ID-	APMAS 2019 oral presentations
ID-	ENEFM 2019 oral presentations