



## **ANM2025 Portugal (23-25 July 2025, University of Aveiro, Portugal)**

### **Confirmed Speakers**

<b>Prof. Ibrahim Dincer (Plenary)</b> Ontario Tech University, Canada The Role of Universities and Technological Priorities in Energy Solutions	<b>Prof. Ajayan Vinu (Plenary)</b> The University of Newcastle, Australia Advanced Nanostructured Materials for Energy and Environmental Applications	<b>Prof. Luís Cadillon Costa (Keynote)</b> University of Aveiro, Portugal Microwave radiation in metrology and materials synthesis	<b>Prof. Luiz Pereira (Plenary)</b> University of Aveiro, Portugal Trap effects on electrical transport in organic semiconductors
<b>Prof. Artur Kasprzak</b> Faculty of Chemistry, Warsaw University of Technology, Poland Sumanene-based materials for optical and electrochemical detection of cesium cations	<b>Prof. Yuan-Hsiang Yu</b> Department of Chemistry, Fu Jen Catholic University, Taiwan Eu-MOF/Epoxy Multifunctional Nanocomposites with Excellent Anti-Corrosion, Fluorescent Corrosion Monitoring, and Flame-Retardant Properties	<b>Prof. Francisco Javier Ramírez</b> Universidad de Málaga, Spain Chiroptical Characterization of Tröger's Base Based Triangular Macrocyclic with a Nanoscale Cavity	<b>Dr. Nan Li</b> Northwestern Polytechnical University, China Rapid solidification of Half-Heusler alloys by glass fluxing technique
<b>Dr. Venkata S. R. Jampani</b> Jozef Stefan Institute, Slovenia Water-based templating of nanoscale polymer thin films for packaging	<b>Dr. Jiliana Freitas</b> Centro de Tecnologia da Informação Renato Archer, Brazil Low-cost materials and processes for the upscaling of perovskite solar cells	<b>Prof. Pranab Goswami (Keynote)</b> Indian Institute of Technology Guwahati, India An Approach to Eliminate Voltage Reversal in Series-Stacked Water Lettuce-Assisted Sediment Microbial Fuel Cells	<b>Prof. Francesca Demichelis</b> Politecnico di Torino, Italia Two-Stage Anaerobic Digestion as a Biorefinery for H <sub>2</sub> , and CH <sub>4</sub> , Productions with Material Recovery
<b>Prof. Hiroyuki Aoki</b> Japan Atomic Energy Agency, Japan Polymer nano-particles for highly sensitive in vivo photo-acoustic imaging	<b>Dr. Ilona Smolkova</b> Centre of Polymer Systems, Tomas Bata University in Zlín, Czech Republic Iron oxide nanoparticles dispersions: feasibility for magnetic hyperthermia	<b>Dr. Petr Smolka</b> Tomas Bata University in Zlín, Czech Republic Ultra-thin Coating of BOPET Foils for Surface Functionalizing	<b>Prof. Shing-Yi Suen</b> National Chung Hsing University, Taiwan Enhanced Carbon Capture Efficiencies Using Pebax-PEG/Amino-Functionalized TiO <sub>2</sub> Particles Mixed Matrix Membranes
<b>Prof. Victor Manuel Balcao</b> University of Sorocaba, Brazil Use of lytic nanoparticles with encapsulated bacteriophages to control coffee canker associated with Pseudomonas coronafaciens pv. garcae: in planta studies	<b>Prof. Ilenia Rossetti (Keynote)</b> Milan University, Italy Adsorption Technologies for Sustainable Reduction of CH <sub>4</sub> and CO <sub>2</sub> from Agricultural Livestock	<b>Prof. Gianguido Ramis (Keynote)</b> Genoa University, Italy High-Pressure CO <sub>2</sub> Photoreduction, FSP and Z-scheme: a Promising Synergy	<b>Dr. Miklós Csontos</b> Institute of Electromagnetic Fields, ETH Zurich, Switzerland Picosecond Femtojoule Resistive Switching in Nanoscale VO <sub>2</sub> Memristors
<b>Dr. Teresa Esteves (Keynote)</b>	<b>Dr. Fernando Gonzalez-Zavala</b>	<b>Prof. Hyung-Ho Park</b>	<b>Ms. Kendra Damaske</b>

<p><b>Instituto Superior Tecnico, Portugal</b> Advanced wireless electrostimulation nanomaterials for cancer therapy.</p>	<p><b>UAEMex, Mexico</b> TiO<sub>2</sub>Co precipitates for Photocatalytic degradation of organic molecules</p>	<p><b>Yonsei University, Korea (south)</b> F-doped Tin Oxide Aerogel Catalyst for High-Performance Hydrogen Generation</p>	<p><b>Biola University, United States</b> Nano-formulations of Curcumin and Montmorillonite: Characterization and Anticancer Study Against HCT-116 Colorectal Cancer Cells.</p>
<p><b>Mr.Kyu-Yeon Lee</b> Yonsei university, South Korea A study on Mg(OH)<sub>2</sub>/silica composite aerogel filler on the glass transition temperature and flame retardancy of peelable polymer coatings</p>	<p><b>Mr.Matjaz Malok</b> Jozef Stefan Institute, Slovenia Electrical properties of collapsed MoS<sub>2</sub> nanotubes</p>	<p><b>Dr.Carmen Barriocanal</b> INCAR-CSIC, Spain Recycling of Graphite from end-of-life Batteries</p>	<p><b>Dr.Carmen Barriocanal</b> INCAR-CSIC, Spain Preparation of Carbon Dots: Impact of the Hydrothermal Carbonization Temperature</p>
<p><b>Dr.Anna Korniyushchenko</b> University of Muenster, Germany Formation of TiTaZrNiWMo layers with nano- and micro-sized structural elements</p>	<p><b>Ms.Maliheh Nazari</b> University of Aveiro, Portugal Facile fabrication of Pd-WO<sub>3</sub> sensing particles for visual detection of hydrogen</p>	<p><b>Prof.Gul Rahman</b> Quaid-i-Azam University, Pakistan Room temperature ferromagnetism and piezoelectricity in Janus PdBrCl monolayer</p>	<p><b>Dr.Aurelian Crunteanu</b> XLIM Research Institute, CNRS/ University of Limoges, France Large-area, thermal and electrical activation of metal-insulator transition in W-doped VO<sub>2</sub> films for THz applications</p>
<p><b>Mr.Muhammad Aasim</b> University of Porto, Portugal Study of Hydrogen Impurities on NdFeO<sub>3</sub></p>	<p><b>Mr.Jorge Gajardo</b> Universidad de Concepcion, Chile Ultrafast sonochemical synthesis of SBA-15 mesoporous silica at 25 °C</p>	<p><b>Prof.Peter Krajnc</b> University of Maribor, Slovenia Impact of RAFT Polymerization on the Structure and Properties of Nanoporous (Hyper)crosslinked Poly(vinylbenzyl chloride-co-divinylbenzene) PolyHIPEs</p>	<p><b>Mr.Oihane Allegret</b> Universiti de Limoges, France Tungsten implantation of VO<sub>2</sub> nanobeams for neuromorphic applications</p>
<p><b>Prof.Lukasz Skowronski</b> Bydgoszcz University of Science and Technology, Poland The Au-coated AISI 304L stainless steel plates as effective NALDI substrates for the detection of low molecular weight compounds</p>	<p><b>Prof.Jean-Christophe Orlianges</b> Universiti de Limoges, France Physical properties of CdTe thin films obtained by pulsed laser deposition at room temperature</p>	<p><b>Dr.Ali Hassan</b> Institute of Physics of the Czech Academy of Sciences, Czech Republic Magnetic and Magnetic Particle Spectroscopy Studies of Co-Ni Ferrite Nanoparticles</p>	<p><b>Dr.Anand Kumar (Keynote)</b> Qatar University, Qatar Exploring Mg-Substituted LaNi<sub>1-x</sub>Mg<sub>x</sub>O<sub>3</sub> Perovskites for Efficient Methane Reforming</p>
<p><b>Dr.Dalila Antunes</b> Factor Social, Portugal Fusing Technology Readiness Levels (TRLs) and Safety-by-Design (SbD) for Guiding Investment in Emerging Technologies</p>	<p><b>Dr.Ravi Kiran Mandapaka</b> Indian Institute of Petroleum and Energy, India Reduced rate expression for Water gas shift reaction over Ni using R dot approach</p>	<p><b>Dr.Unai Iriarte</b> University of The Basque Country (UPV/EHU), Spain Evaluation of bone char as catalytic support for Hydrogen production by Aqueous Phase Reforming (APR) of liquid waste-biomass</p>	<p><b>Dr.Martina Urbanova</b> Institute of Macromolecular Chemistry CAS, Czech Republic Structural Characterization of Alginate-Pectin Systems Crosslinked by Polyvalent Ions by ssNMR, FTIR and Factor Analysis</p>
<p><b>Dr.Jiri Brus (Keynote)</b> Institute of Macromolecular Chemistry CAS, Czech Republic A Novel Insight into the Domain Architecture of Transition-Metal Cross-Linked Alginates: Paramagnetic Solid-State NMR Spectroscopy</p>	<p><b>Dr.Sara Rabia</b> Nantes university, France Flexoelectricity in conjugated polymers and biopolymers</p>	<p><b>Dr.Philippe Baranek</b> EDF R&amp;D, France Effect of the chemical composition and dimensionality of halide perovskites for photovoltaic applications on their basic properties: Towards a stable perovskite</p>	<p><b>Prof.Sang Yong Nam</b> Department of Materials Engineering and Convergence Technology, South Korea Functional polymeric membranes to produce green hydrogen using water electrolysis</p>
<p><b>Prof.Sang Yong Nam</b> Gyeongsang National University, South Korea</p>	<p><b>Prof.Sang Yong Nam</b> Gyeongsang National University, South Korea</p>	<p><b>Dr.Denis Cutcovschi</b> Technical University of Cluj-Napoca, Romania</p>	<p><b>Dr.Oleg Tihon</b> Technical University of Cluj-Napoca, Romania</p>

Improvement of Vanadium Redox Flow Battery Performance Using Ionic Liquid-Based Polybenzimidazole Composite Membranes	Development of PVA/GA-Coated PVDF Hollow Fiber Membranes for Efficient Oil-in-Water Separation	â€žIn situâ€ synthesis of nickel nanoparticles on ZnSn-layered double hydroxides for driving catalytic reduction of CO <sub>2</sub> through light irradiation	Nanoparticles of silver/layered double hydroxides as nanoarchitectonics with solar photocatalytic response for pollutants removal
<b>Mr.Abbas Zirakjou</b> École de technologie supérieure - ÉTS Montréal, Canada Screen-printed CuO-based Thin Films for Photocatalysis	<b>Dr.Rui Costa</b> IFIMUP, Department of Physics and Astronomy, Faculty of Sciences of Porto University, Portugal Stochastic Ag NWs-based Physical Reservoirs for Neuromorphic Applications	<b>Dr.Adrian Petraru</b> Nanoelectronics, Institute of Electrical Engineering and Information Engineering, Kiel University, Germany, Germany Structural and electrical characterization of rhombohedral epitaxial doped HfO <sub>2</sub> ferroelectric films deposited on various substrates	<b>Dr.Hana Krysova</b> J. Heyrovsky Institute of Physical Chemistry of the Czech Academy of Sciences, Czech Republic Protection of WO <sub>3</sub> electrodes against dissolution and photocorrosion through TiO <sub>2</sub> ALD coating
<b>Prof.Andrzej Wawro</b> Institute of Physics Polish Academy of Sciences, Poland Tunable magnetic anisotropy and Dzyaloshinskii-Moriya interaction in Pt/Re/Co/Pt and Pt/Co/Re/Pt heterostructures	<b>Dr.Hana Tarabkova</b> J. Heyrovsky Institute of Physical Chemistry of the Czech Academy of Sciences, Czech Republic Characterization of Thin Film TiO <sub>2</sub> Photoelectrodes Prepared by Various ALD Procedures	<b>Dr.Jan Meissner</b> Forschungszentrum JÄ¼lich GmbH, Germany A unique technology for the deposition of nanoparticles on catalyst supports	<b>Mr.Timon Gunther</b> University of Augsburg, Germany Optimization of highly active Raney-Nickel cathodes for alkaline water electrolysis (AWE) during the hydrogen evolution (HER) at high current-densities
<b>Ms.Catalina-Diana Usurelu</b> National Institute for Research & Development in Chemistry and Petrochemistryâ€ ICECHIM, Bucharest, Romania, Romania Compositions with antibacterial properties for dental tissue engineering based on biopolymers and nanocellulose modified with natural aldehydes	<b>Mr.Pedro Ferreira</b> University of Porto, Portugal Soft-based resistive-switching devices for artificial synapses	<b>Prof.PATRICK DA COSTA (Keynote)</b> Sorbonne UniversitÄ©, France Gd promoted inverse ZrO <sub>2</sub> /Ni catalysts for CO <sub>2</sub> methanation	<b>Prof.PATRICK DA COSTA</b> Sorbonne UniversitÄ©, France On the effect of the synthesis method of Ni-MgO catalysts prepared from Upsalite
<b>Prof.Jean-Fabien CAPSAL</b> LGEF-INSA Lyon, France Enhanced Performance of Piezoelectric Composites through Nano/Meso Structuring	<b>Prof.Meltem Yanilmaz</b> ITU NCSU, USA Modified cathodes via LLZO coating for lithium batteries	<b>Dr.Hana Kmentova</b> Regional Center of Advanced Technology and Materials, PalackÄ½ University Olomouc, Czech Republic Optimizing CO <sub>2</sub> Reduction Selectivity through Structural Modification of TiO <sub>2</sub> Photocatalysts	<b>Prof.Stepan Kment</b> Regional Center of Advanced Technology and materials/CATRIN, PalackÄ½ University Olomouc, Czech Republic Ultrasound-Induced Defect Engineering in TiO <sub>2</sub> ,,â€x Nanotubes for Highly Efficient Photocatalytic Water Splitting with Platinum Single-Atom Enhancement
<b>Dr.Sheta Mohamed</b> National Research Centre, Egypt Early diagnosis of liver cancer using promising novel nanocomplex based-ferric Î²-cyclodextrin	<b>Dr.Irum Shaheen</b> Queen Mary University of London, United Kingdom Synergistic Integration of 2D V <sub>2</sub> C With Zn-MOFs For Improved Energy Storage Supercapacitor Application	<b>Prof.Alexa Courty</b> sorbonne universite, France Fine-Tuning Copper-Based Nanocatalysts for Optimized CO <sub>2</sub> Conversion	<b>Dr.Maria Jose Piernas</b> University of Murcia, Spain Unveiling the anodic reaction mechanism of Prussian blue in Li-ion batteries

<b>Dr.Francisco De Santiago</b> Instituto de Fisica, UNAM, Mexico A DFT study of Li adsorption in a GeC bilayer for Li-ion batteries	<b>Dr.Antonin Minarik</b> Faculty of Technology, Tomas Bata University in Zlín, Czech Republic Proteins and synthetic polymers blends for 3D printing of scaffolds	<b>Prof.Meltem Yanilmaz</b> ITU, Turkey Facile spinning technique for synthesis of nanostructured energy materials	<b>Prof.Wein-Duo Yang</b> Department of Chemical and Materials Engineering, National Kaohsiung University of Science and Technology, Taiwan N-Doped MoS <sub>2</sub> -Carbon Base Electrodes for Flexible Supercapacitors
<b>Dr.Kwonwoo Shin</b> Korea Electronics Technology Institute(KETI), Republic of Korea The study on improvement of thermal stability and heating properties through surface coating of silver nanowire	<b>Dr.Kwonwoo Shin</b> Korea Electronics Technology Institute (KETI), Republic of Korea The study on enhanced environmental stability and degradation resistance of silver nanowire via inorganic coating by ALD	<b>Dr.Noof Alenazi</b> Department of Chemistry, College of Science and Humanities in Al-Kharj, Prince Sattam bin Abdulaziz University, Al-kharj 11942, Saudi Arabia, Saudi Arabia Chitosan nanoparticles included different doses of copper oxide nanoparticles produced by molasses: Investigating electrical conductance and antibacterial attributes	<b>Dr.Ivana Troppova</b> VSB-TU Ostrava, CEET, Institute of Environmental Technology, Cesko Monolithic TiO <sub>2</sub> -CeO <sub>2</sub> and Pt/TiO <sub>2</sub> -CeO <sub>2</sub> /VUKOPOR®A ceramic foams in oxidation of dichloromethane and methanol
<b>Dr.František Hájek</b> Institute of Physics of the Czech Academy of Sciences, Czech Republic MOVPE grown InGa <sub>N</sub> /Ga <sub>N</sub> core- shell microrods for photocatalytic water splitting	<b>Dr.Luis Duarte</b> Institute of Chemical Research of Catalonia (ICIQ), Spain De Novo Designed Proteins as Customizable Matrices for Light Conversion	<b>Dr.Piyali Chatterjee</b> Jagiellonian University, Poland FeWO <sub>4</sub> /WO <sub>3</sub> Photoelectrodes for Solar Water Oxidation	<b>Dr.QIN HUANG</b> BEIJING JIAOTONG UNIVERSITY, China Towards Safe Hydrogen Delivery: A Systematic Review of Hydrogen Explosion Suppression in Porous Media Materials
<b>M.C.Luis Angel Arellanes- Mendoza</b> Universidad Tecnológica de la Mixteca, México Porous and Conductive Al <sub>2</sub> O <sub>3</sub> - ZnO Ceramics Bonded and Foamed with Glycerol-Citrate Polyester for Photoelectrode Applications	<b>Dr.Krzysztof Lukaszewicz</b> Silesian University of Technology, Poland Characteristics of ZnO thin films deposited by magnetron sputtering and ALD process	<b>Prof.Eva Mihokova</b> Institute of Physics of the Czech Academy of Sciences, Czech Republic Highly Loaded Cesium Lead Halide Perovskite Nanocomposites for Advanced Radiation Detectors	<b>Ms.Wiktoria Weichbrodt</b> Wrocław University of Science and Technology, Poland Influence of thickness of WO <sub>3</sub> thin films deposited by GLAD on gasochromic response to hydrogen
<b>Dr.Joanna Banas Gac</b> AGH University of Krakow, Polska Black titania thin film photoelectrodes for sustainable energy	<b>Ms.Paulina Kapuscik</b> Wrocław University of Science and Technology, Poland Correlation Between Electron Beam Evaporation Conditions and Sensor Response of Cerium Oxide Coatings	<b>Prof.Rahul Bhosale (Keynote)</b> University of Tennessee, USA Perovskite Oxides for Solar Thermochemical Splitting of H <sub>2</sub> O/CO <sub>2</sub> into Fuels	<b>Prof.Rahul Bhosale</b> University of Tennessee, USA Solar-Powered Thermochemical Conversion of H <sub>2</sub> O and/or CO <sub>2</sub> into Fuels Utilizing Doped Iron Oxides
<b>Prof.Rahul Bhosale</b> University of Tennessee, USA Examination of Ceria Doped with Zirconium for the Generation of Solar Thermochemical Fuels through the Splitting of H <sub>2</sub> O and CO <sub>2</sub>	<b>Prof.MICHAEL OHADI (Keynote)</b> University of Maryland: College Park, United States, Low-Cost Glauber's salt-based Composites for low- Temperature Thermal Energy Storage	<b>Dr.Adriana, Marinoiu,</b> National Research and Development Institute for Cryogenic and Isotopic Technologies, ICSI Rm Valcea, Romania, Innovative Membrane Electrode	<b>Ms.Katarzyna, Placheta</b> AGH University of Krakow, Poland Optical nonlinearity in Er,Yb- modified titanium oxide-based thin films



	Applications— Performance and Cyclic Stability Analysis	Assemblies for PEM Fuel Cells with Low Platinum Content	
<b>Dr.Monika Furko</b> Institute of Technical Physics and Materials Science, HUN- REN Centre for Energy Research, Hungary Biomimetic amorphous calcium phosphate-biopolymer composites as coatings or bone replacements	<b>Prof.Sridhar Dalai</b> Ahmedabad University, India Binder free Flexible Anode Material for Lithium Ion Batteries: Waste Glass derived Nano Si/CNF Composite	<b>Dr.Necmettin Kilinc</b> Inonu University, Turkey Magnetron sputtered PdAu alloy thin films for high sensitive hydrogen sensor application	<b>Prof.Mohamed Nawfal GHAZZAL</b> Universit� Paris-saclay, France Graphdiyne a new 2D material for photocatalytic H2 generation
<b>Prof.Peter Njoki</b> Hampton University, USA Synthesis, Characterization and Application of Azadirachta Indica Based Silver and Zinc Oxide Nanoparticles Against Drug-Resistant Bacteria	<b>Prof.Duckjong Kim</b> Gyeongsang National University, Republic of Korea Scalable Freeze-Casting of Directional Graphene Aerogels for Enhanced Thermal Energy Applications	<b>Dr.Beatriz Gsanchez</b> Universidad Rey Juan Carlos, Spain Production of CNCs and CNFs from textile waste using Deep Eutectic Solvents	<b>Dr.Federico Vivaldi</b> University of Pisa, Italy Solid state electrochemical sensor for the detection of hydrogen
<b>Prof.Jornandes Silva</b> UPE-POLI, Brazil Photovoltaic-Assisted Steam Reforming of Biomethane in a Packed Bed Membrane Reformer for Biohydrogen Production: A Theoretical Study	<b>Prof.Lorentz J��ntschi</b> Technical University of Cluj-Napoca, Romania Topological characterization of a complete set of small sized graphene sheets using molecular descriptors	<b>Prof.Maria Gimenez Lopez</b> Oportunius Research Professor, Xunta de Galicia (GAIN), University of Santiago de Compostela, Spain Nanostructured Materials for Sustainable Hydrogen Generation	<b>Prof.Elise Sommer Watzko</b> Federal University of Santa Catarina, Brazil Performance prediction of microbial fuel cells for power generation and acid mine drainage treatment
<b>Dr.Lada Dubnova</b> University of Pardubice, Czech Republic,Czech Republic The electron migration pathways in S-scheme GaP- TiO2 photocatalysts and their implications for photocatalytic hydrogen production	<b>Dr.Yukesh Kannah Ravi</b> Centre for Organic and Nanohybrid Electronics, Silesian University of Technology, Poland Effect of photocatalytic mediated biological disintegration of microalgae to enhance fermentative hydrogen yield: Energy and cost assessment	<b>Dr.Lucie Smolakova</b> University of Pardubice, Czech Republic The role of impregnation order of Ni and Ce species on the catalytic behaviour of Ni/Al2O3 catalyst promoted with Ce in the ODH of ethane and in the dry reforming of methane	<b>Prof.Eunsang Kwon</b> Tohoku University, Japan Structure and Energy Storage Characteristics of a Metal-Ion Endohedral [C60] Fullerene
<b>Dr.Ebrahim Sadeghi</b> The Faculty of Engineering Department, Denmark Advanced Iridium- and Ruthenium-Based Catalysts for Acidic Water Electrolysis: Bridging Solid-State	<b>Mr.Mikolaj Kozak</b> Jagiellonian University, Poland Take nanofabrication easy: electrodeposition of energy-related materials	<b>Mr.Tomoaki Yoshida</b> Tokai University, japan Investigation of Methane generation Mechanism from Ni/CaCO3 under H2 atmosphere	<b>Yuma Terabayashi</b> Tokai University, Japan Direct methanation of CO2 by ball-milling of Al(OH)3 under atmospheric air

Synthesis, Nanoscale Disorder, and Atomic-Level Insights			
<b>Ms.Gabriela Malyszko</b> Gdansk University of Technology, Poland Improved methodology for investigating the electrical properties of conductive hydrogels in energy applications	<b>Prof.Victor Aristov</b> DESY, Notkestr. 85, 22607 Hamburg, Germany Graphene covalent functionalization resulting in profound modification of electronic structure and properties	<b>Dr.Lutfi Bilal Tasyurek</b> Malatya Turgut Ozal University, Turkiye Electrical properties and H2 gas detection of perovskite SrTiO3 interface	<b>Mr.Diogo Baptista</b> , Institute of Physics for Advanced Materials, Nanotechnology and Photonics, Portugal Structural Phase Transitions of Ca-based Perovskites under extreme conditions
<b>Dr.Monika Furko</b> Institute of Technical Physics and Materials Science, HUN-REN Centre for Energy Research, Hungary Biomimetic amorphous calcium phosphate-biopolymer composites as coatings or bone replacements	<b>Prof.Al-Amin Dhirani</b> Department of Chemistry, University of Toronto, Canada From nano building-blocks to a new class of 2-D nanosheets	<b>Mr.Minsu Kim</b> Chung-Ang University, South Korea Enhancing thermal and dielectric performance of PI-PDMS composites using silane-grafted AlN and KNN fillers	<b>Mr.Wondu Lee</b> Chung-Ang University, South Korea Research on phase change epoxy composites capable of two-phase heat absorption for efficient thermal management
<b>Mr.Vinicius Cardoso</b> CeNTI - Centre of Nanotechnology and Advanced Materials, Portugal Safe and Sustainable-by-Design Approach for Functional Bio-Silica Nanomaterials: LCA and LCC Comparisons	<b>Dr.Jimmy Romanos</b> Lebanese American University, Lebanon Long-Term Degradation of Adsorbed Natural Gas Storage in Basolite C300 Due to Heavy Alkane Accumulation	<b>Dr.Sambasivam Sangaraju</b> United Arab Emirates University, United Arab Emirates High-Performance Ni-Co-Al Layered Double Hydroxides for Advanced Pouch Cell Supercapacitors: Optimized Nanoarchitectures and Long-Term Stability	<b>Dr.Macole Sabat</b> University of Balamand, Lebanon Feasibility Pilot Study on Optimizing Hydrogen Storage Tanks: Insights from Computational Fluid Dynamics and Finite Element Analysis
<b>Dr.Julian Andres Lenis Rodas</b> University of Antioquia, Colombia The effect of structural modification of an AB-type TiFe alloy with V, Zr and Ni on the hydrogen storage capacity and kinetics at room temperature (RT)	<b>Mr.Eric Fuster-Navarro</b> Instituto de Tecnología-a Química (ITQ UPV-CSIC), Spain Antibacterial Coatings with Photoactive Octahedral Molybdenum Clusters in a Organic Resin	<b>Mr.Eric Fuster-Navarro</b> Instituto de Tecnología-a Química (ITQ UPV-CSIC), España Antibacterial Coatings with Photoactive Octahedral Molybdenum Clusters in an Organic Resin	<b>Prof.Maxim Sokol</b> Tel Aviv University, Israel Challenges and Opportunities in Integrating MXene into Ceramic Nanocomposites
<b>Ms.Natalia Izdebska</b> Warsaw University of Technology, Poland Rechargeable Magnesium Batteries: New Electrolyte Additives for Next-Generation of Bivalent Batteries	<b>Mr.Maciej Smolinski</b> Warsaw University of Technology, Poland Novel MOF-modified cathodes In Lithium-Sulfur Batteries With Fluorine-Free Electrolyte Compositions	<b>Dr.Dariusz Zientara</b> AGH University of Krakow, Poland Application of Hot Pressing for sintering of BaCe0.6-xZr0.3-yY0.1Gdx+yO3-Î´	<b>Prof.Pawel Pasierb</b> AGH University of Krakow, Poland The influence of microstructure, crystal structure and phase composition of selected ABO3-type materials developed for

		ceramic protonic conductors	electrochemical energy conversion
<b>Prof.Ivan Cabria (Keynote)</b> University of Valladolid, Spain Hydrogen Storage Capacities of novel Zn(II) and Cd(II) MRT MOFs via Grand Canonical Monte Carlo Simulations	<b>Prof.Ana Paula de Azevedo Marques</b> Universidade Federal de São Paulo, Brasil Synthesis, Integration with Textiles, and Application in Sensors of SrMoO4:Ag	<b>Dr.Hyungu Im</b> Korea Automotive Technology Institute, Korea Development of a High- Performance Hydrophobic Coating for Large Automotive Center Information Displays (CIDs)	<b>Dr.Sosan Hwang</b> Korea Automotive Technology Institute, Republic of Korea Effects of Melamine and Chitosan Hybrid Composites on Flame Retardancy
<b>Prof.Michael Tiemann</b> Paderborn University, Germany Water Sorption and Water Structure in CPO-27 Metal- Organic Frameworks			