



## **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. 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> Instituto Superior Técnico, Portugal Advanced wireless electrostimulation nanomaterials for cancer therapy.	<b>Dr. Fernando Gonzalez-Zavala</b> UAEMex, Mexico TiO <sub>2</sub> Co precipitates for Photocatalytic degradation of organic molecules	<b>Prof. Hyung-Ho Park</b> Yonsei University, Korea (south) F-doped Tin Oxide Aerogel Catalyst for High-Performance Hydrogen Generation	<b>Ms. Kendra Damaske</b> Biola University, United States Nano-formulations of Curcumin and Montmorillonite: Characterization and Anticancer Study Against HCT-116 Colorectal Cancer Cells.
<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	<b>Mr. Matjaz Malok</b> Jozef Stefan Institute, Slovenia Electrical properties of collapsed MoS <sub>2</sub> nanotubes	<b>Dr. Carmen Barriocanal</b> INCAR-CSIC, Spain Recycling of Graphite from end-of-life Batteries	<b>Dr. Carmen Barriocanal</b> INCAR-CSIC, Spain Preparation of Carbon Dots: Impact of the Hydrothermal Carbonization Temperature
<b>Dr. Anna Korniyushchenko</b> University of Münster, Germany	<b>Ms. Maliheh Nazari</b> University of Aveiro, Portugal	<b>Prof. Gul Rahman</b>	<b>Dr. Aurelian Crunteanu</b>

Formation of TiTaZrNiWMo layers with nano- and micro-sized structural elements	Facile fabrication of Pd-WO <sub>3</sub> sensing particles for visual detection of hydrogen	Quaid-i-Azam University, Pakistan Room temperature ferromagnetism and piezoelectricity in Janus PdBrCl monolayer	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
<b>Mr. Muhammad Aasim</b> University of Porto, Portugal Study of Hydrogen Impurities on NdFeO <sub>3</sub>	<b>Mr. Jorge Gajardo</b> Universidad de Concepcion, Chile Ultrafast sonochemical synthesis of SBA-15 mesoporous silica at 25 °C	<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	<b>Mr. Oihan Allegret</b> University of Limoges, France Tungsten implantation of VO <sub>2</sub> nanobeams for neuromorphic applications
<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	<b>Prof. Jean-Christophe Orlianges</b> University of Limoges, France Physical properties of CdTe thin films obtained by pulsed laser deposition at room temperature	<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	<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
<b>Dr. Dalila Antunes</b> Factor Social, Portugal Fusing Technology Readiness Levels (TRLs) and Safety-by-Design (SbB) for Guiding Investment in Emerging Technologies	<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	<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	<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
<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	<b>Dr. Sara Rabia</b> Nantes university, France Flexoelectricity in conjugated polymers and biopolymers	<b>Dr. Philippe Baranek</b> EDF R&D, France Effect of the chemical composition and dimensionality of halide perovskites for photovoltaic applications on their basic properties: Towards a stable perovskite	<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
<b>Prof. Sang Yong Nam</b> Gyeongsang National University, South Korea Improvement of Vanadium Redox Flow Battery Performance Using Ionic Liquid-Based Polybenzimidazole Composite Membranes	<b>Prof. Sang Yong Nam</b> Gyeongsang National University, South Korea Development of PVA/GA-Coated PVDF Hollow Fiber Membranes for Efficient Oil-in-Water Separation	<b>Dr. Denis Cutcovschi</b> Technical University of Iasi, Romania In situ synthesis of nickel nanoparticles on ZnSn-layered double hydroxides for driving catalytic reduction of CO <sub>2</sub> through light irradiation	<b>Dr. Oleg Tihon</b> Technical University of Iasi, Romania 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	<b>Dr. Adrian Petraru</b> Nanoelectronics, Institute of Electrical Engineering and Information Engineering, Kiel University, Germany, Germany	<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

	Stochastic Ag NWs-based Physical Reservoirs for Neuromorphic Applications	Structural and electrical characterization of rhombohedral epitaxial doped HfO <sub>2</sub> ferroelectric films deposited on various substrates	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 Jülich 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 Petrochemistry“ 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 Université®, France Gd promoted inverse ZrO <sub>2</sub> /Ni catalysts for CO <sub>2</sub> methanation	<b>Prof.PATRICK DA COSTA</b> Sorbonne Université®, France On the effect of the synthesis method of Ni-MgO catalysts prepared from Upsalite
<b>Prof.Jean-Fabien CAPSAL</b> LGEF-INSAL 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, Palacký 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, Palacký University Olomouc, Czech Republic Ultrasound-Induced Defect Engineering in TiO <sub>2</sub> , “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 $\beta$ -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	<b>Dr.Kwonwoo Shin</b> Korea Electronics Technology Institute (KETI), Republic of Korea	<b>Dr.Noof Alenazi</b> Department of Chemistry, College of Science and Humanities in Al-Kharj, Prince Sattam bin Abdulaziz	<b>Dr.Ivana Troppova</b> VSB-TU Ostrava, CEET, Institute of Environmental Technology, Česko

properties through surface coating of silver nanowire	The study on enhanced environmental stability and degradation resistance of silver nanowire via inorganic coating by ALD	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	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 InGaN/GaN 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>			