

4th Conference on Advanced Materials in Spain

AMatS 2025

CONFERENCE PROGRAM

SPONSORS

PLATINUM



GOLD



SILVER



FUNDING ENTITIES



ORGANIZING INSTITUTIONS



CONFERENCE PROGRAM

Monday 24th November 2025

AMatS 2025 Opening Plenary Session - Day I

Plenary Session I - Auditori Lletres UAB

Session Chair: Caterina Biscari

14:30 – 15:00	REGISTRATION	
15:00 – 15:15	WELCOME – Lucía Aballe – Jordi Arbiol	
15:15 – 16:00	Beatriz Roldán Cuenya Fritz Haber Institut of Max Planck Society – Berlín (Germany) <i>A Catalyst Life and its Circumstances</i>	Plenary
16:00 – 18:00	Advanced Materials Plan Summary by the Scientific Coordinators (7 Talks) 16:00 – 16:30 Eugenio Coronado – Coordinator Plan Nacional and Valencia 16:30 – 16:45 Conrado Rillo – Aragón 16:45 – 17:00 Miguel Ángel Rodríguez – Castilla León 17:00 – 17:15 Ester Vázquez – Castilla la Mancha 17:15 – 17:30 Nazario Martín – Madrid 17:30 – 17:45 Ricardo Díez Muiño – País Vasco / Euskal Herria 17:45 – 18:00 Jordi Arbiol – Catalunya	Plenary
18:00 – 19:30	WELCOME COCKTAIL – EXHIBITION (HALL)	

Tuesday 25th November 2025

AMatS 2025 – Day II

Plenary Session II – Auditori Lletres UAB

Session Chair: Lucía Aballe

08:30 – 09:00	REGISTRATION	
09:00 – 09:45	José A. Martín Gago ICMM-CSIC – Madrid <i>On-Surface Synthesis Without a Metal Surface</i>	Plenary

Contributed Lectures I – Auditori Lletres UAB

Functional Oxides

Session Chair: xxxx

09:45 – 09:57	Hugo Romero Bernad (ID40) INMA CSIC / Universidad de Zaragoza <i>Exploring Epitaxial Stabilization Across the HZO System in Buffer- Free Thin Films</i>
09:57 – 10:09	Kumara Cordero-Edwards (ID113) ICN2, CSIC & BIST <i>Hierarchical Domain Structures in Buckled Ferroelectric BaTiO3 Free Sheets</i>
10:08 – 10:21	Nona Mirzamohammadi (ID127) ICN2, CSIC & BIST <i>Active Role of Organic Compounds in Stabilization of Ferroelectric Polarization Switching, Enhancement of Switching Dynamics, and Tunnelling Electroresistance in BaTiO3 Ultrathin Films</i>
10:21 – 10:33	Xinxin Hu (ID77) ICN2, CSIC & BIST <i>Polarization Vortices in a Ferromagnetic Metal via Twistronics</i>
10:33 – 10:45	Reza Zamani (ID: Platinum Sponsor 1) Thermo Fisher Scientific <i>Ultimate S/TEM performance and multimodality with Iliad Ultra</i>
10:45 – 11:15	COFFEE BREAK – EXHIBITION (HALL)

Contributed Lectures II – Auditori Lletres UAB

Electronic and Magnetic Applications

Session Chair: Lucía Aballe

11:15 – 11:27	Amparo Ruiz Carretero (ID122) ICMM-CSIC <i>Design Strategies Towards Supramolecular Materials with Electronic and Spintronic Applications</i>
11:27 – 11:39	Ignasi Fina (ID65) ICMAB-CSIC <i>Magnetoelectric Effects in Multiferroic Structures Based on Epitaxial Ferroelectric HfO₂ Films</i>
11:39 – 11:51	Sandra Ruiz Gómez (ID78) ALBA-CELLS <i>Understanding Domain Wall Dynamics of Nanowires Using Correlative Microscopy</i>
11:51 – 12:03	Dean Kos (ID117) ICMAB-CSIC <i>Optical mapping of charge traps in organic field-effect transistors</i>
12:03 – 12:15	Hugo Pérez Garza (ID: Platinum Sponsor 2) DENSsolutions <i>TBD</i>
12:15 – 12:27	Speaker Name (ID: Platinum Sponsor 3) HORIBA / Alava <i>TBD</i>
12:27 – 12:39	Marta Cartón (ID: Special guest 1) Asociación Española de Normalización – UNE <i>Innovation to Standard in Advanced Materials</i>

Flash Talks I – Auditori Lletres UAB

Session Chair: Belén Ballesteros

12:40 – 12:43	María Elena Hernández García (ID112) Universidad de Salamanca <i>Study on Ultrasonic Welding of Flax/Polypropylene Composites Tapes</i>
---------------	--

12:43 – 12:46	Paula Novella-Rodríguez (ID13) + Poster presentation INMA CSIC / Universidad de Zaragoza <i>Developing New Chemical Approaches for Modulating the Antimicrobial Activity of Polyoxometalate-Polypeptide Hybrids</i>
12:46 – 12:49	Faiz Ullah (ID84) ICN2, CSIC & BIST <i>Development of a Multifunctional Catechol Base Magnetic Nanocomposite Biomaterial Membrane for Skin Cancer Hyperthermia Therapy and Tissue Regeneration</i>
12:49 – 12:52	Isabela Alves de Albuquerque Bessa (ID38) + Poster presentation Universidade Federal Fluminense (Brazil) <i>Targeting Glioblastoma Via Adsorptive-Mediated Transcytosis Using Positively Charged Reduced Graphene Oxide</i>
12:52 – 12:55	Sara Fiori (ID96) + Poster presentation ICN2, CSIC & BIST <i>Engineering Functional Nanomaterials from Graphene Nanoribbons to Complex Nanoarchitectures</i>
12:55 – 12:58	Alex Mutale (ID25) Bolu Abant Izzet Baysal University (Turkey) <i>Role of High-k Materials in Developing Advanced Photodetector Modules</i>
12:58 – 13:01	Alberto Concellón (ID73) INMA CSIC / Universidad de Zaragoza <i>Functional Materials Inspired by Liquid Crystals: Engineering Emulsions for Sensing, Optics, and Smart Actuators</i>
13:01 – 14:30	LUNCH & Poster Session A (see the list of posters on page 19) EXHIBITION (HALL)

Plenary Session III – Auditori Lletres UAB

Keynote Lecture I

Session Chair: Marc González Cuxart

14:30 – 15:00	Martin Švec FZU Czech Academy of Sciences – Prague (Czech Republic) <i>Photon-Induced Processes at Single Molecules in SPM Nanocavities</i>	Invited
---------------	--	---------

Flash Talks II – Auditori Lletres UAB

Session Chair: Daniel Martín

15:00 – 15:03	Carina Babu Maliakkal (ID81) ICN2, CSIC & BIST <i>Electron Microscopy Based Failure Analysis of Undoped-2DEG Semiconductor Devices</i>
15:03 – 15:06	Alejandro Gómez González (ID37) + Poster presentation Universidad de Zaragoza <i>Molecular bilayers as a pathway to increase the efficiency of organic thermoelectric devices</i>
15:06 – 15:09	Elisa Ibañez Rodilla (ID41) + Poster presentation INMA CSIC / Universidad de Zaragoza <i>YBCO thin films for broad-band nanoSQUID operation</i>
15:09 – 15:12	Emmanouil Nikolaos Charkiolakis (ID66) + Poster presentation ICN2, CSIC & BIST <i>Investigation of the Barocaloric Effect in a Cd-Based Hybrid Organic-Inorganic Perovskite-Like Compound</i>
15:12 – 15:15	Anjana Baby (ID44) Jozef Stefan Institute (Slovenia) <i>Plasma-tailored ZnNi-layered double hydroxides for advanced supercapacitors</i>
15:15 – 15:18	Utsa Sarkar (ID89) Institute of Nano Science and Technology (India) <i>Toward High-Performance Flexible Electronics: The Role of One-Dimensional Tellurium Nanocomposites in Advanced Energy Harvesting</i>
15:18 – 15:30	BREAK – PAUSE

Parallel Sessions

Contributed Lectures III – Auditori Lletres UAB

Session Chair: Miguel Ángel Rodríguez Pérez

15:30 – 16:00	Elvira Fortunato i3N/CENIMAT, Universidade NOVA – Lisboa (Portugal) <i>Digital Fabrication of Sustainable Electronics and Bioelectronics from Nature-Derived Laser-Induced Graphene</i>	Invited
---------------	--	---------

Functional Molecular Materials

Session Chair: Nazario Martín

16:00 – 16:12	David Ecija Fernández (ID10) IMDEA Nanociencia <i>The Awakening of on-Surface Synthesis</i>
16:12 – 16:24	Dayra Lisseth Riaño Núñez (ID51) Universidad de Zaragoza <i>Langmuir-Blodgett Thin Films of P,P'-Bis(Aniline)-Substituted Polyenes for Molecular Thermoelectrics</i>
16:24 – 16:36	Yessenia Alexandra Falconí Castillo (ID36) Universidad de Zaragoza <i>Nanoarchitectonics of Functional Monolayers: Toward Scalable Molecular Electronic Materials</i>
16:36 – 16:48	Nahir Vadra Garcia (ID103) Adam Mickiewicz University (Poland) <i>Emergent Thermo- and Baro-Responsive Luminescence in a Cr³⁺-Based Anderson Polyoxometalate and Its Supramolecular Hybrids</i>
16:48 – 17:00	Judith Martín de León (ID90) University of Valladolid <i>Molecular rearrangement of PEI induced by CO₂ saturation conditions</i>
17:00 – 17:12	Aleksandra Masulovic (ID74) INMA CSIC / Universidad de Zaragoza <i>Tuning molecular designs for functional soft-materials: Positional control of pyridine nitrogen in bent-core molecules</i>
17:12 – 17:24	Tomás Torres (ID2) Universidad Autónoma de Madrid <i>Subphthalocyanines: Singular Aromatic Non-Planar and Chiral Molecules</i>

17:24 – 17:36	Elzbieta Regulska (ID68) Universidad de Castilla-La Mancha <i>Linearly-Fused Pi-Extended Phosphorus Heterocycles for Materials Science</i>
----------------------	---

17:36 – 17:48	Carlos Romero-Nieto (ID70) Universidad de Castilla-La Mancha <i>Pi-Extended Phosphorus Heterocycles for Controlling 3D Nanomaterials</i>
----------------------	---

Contributed Lectures IV – Sala de Graus Lletres UAB

Catalysis for Energy and Environmental Science

Session Chair: Alba Garzón Manjón

15:30 – 15:42	David Llorens Rauret (ID8) ICN2, CSIC & BIST <i>Activation Mechanisms in Transition Metal Tungstates: Uncovering the Exceptional Performance of CoWO₄ for OER</i>
----------------------	---

15:42 – 15:54	Ann Charise Cariño (ID76) IREC <i>Controlling the Atomic Layer Deposition of TiO₂ on Mesoporous Al₂O₃ for Fischer-Tropsch Synthesis application</i>
----------------------	---

15:54 – 16:06	Leticia Sánchez Uriel (ID16) INMA CSIC / Universidad de Zaragoza <i>Heterogeneous enzyme-mimicking catalysts</i>
----------------------	---

16:06 – 16:18	Cippora Magagnin (ID108) IREC <i>Atomic Layer Deposited ZnO enhanced Cu/Al₂O₃ catalysts for sustainable methanol production</i>
----------------------	--

16:18 – 16:30	Ana M. Lopez Periago (ID43) ICMAB-CSIC <i>Synthesis of Porous Materials for the Efficient Hydrogenation of CO₂ to Methanol</i>
----------------------	--

16:30 – 16:42	Andrés López García (ID57) ITQ, UPV-CSIC <i>On the High-Temperature Conductivity -up to 1500 °C- of Membrane Reactor Materials for Solar-driven Production of Syngas</i>
----------------------	---

16:42 – 16:54	Reyes Mallada (ID126) INMA CSIC / Universidad de Zaragoza <i>On the Microwave effects on catalytic solid oxides for CO₂ utilization</i>
----------------------	---

16:54 – 17:06	Kevin Varghese Alex (ID55) Jožef Stefan Institute (Slovenia) <i>Photocatalytic Activity of Lead-Free High Entropy Oxide Pellet</i>
17:06 – 17:18	María-Jesús Blesa (ID17) INMA CSIC / Universidad de Zaragoza <i>Pyrimidine-Based Molecular Photosensitizers as Dyes for DSSCs and Hydrogen Photoelectrochemical Generation from Water</i>
17:18 – 17:30	TBD
17:30 – 19:30	Refreshments & Poster Session A (see the list of posters on page 19) EXHIBITION (HALL)
20:00 – 20:30	BUS Transport from UAB to Barcelona
20:30 – 00:00	GALA DINNER (Restaurant Flamant - Barcelona)

Wednesday 26th November 2025
AMatS 2025 – Day III – Auditori Lletres UAB
Plenary Session III

Session Chair: Aitor Mugarza

08:30 – 09:00	REGISTRATION
09:00 – 09:45	Mads Brandbyge DTU – Lyngby (Denmark) <i>Controlling Quantum Transport in Nano-Porous Graphenes: Computational Explorations</i>

Plenary
Parallel Sessions
Contributed Lectures V – Auditori Lletres UAB
Alloys, Composites and Coatings

Session Chair: TBD

09:45 – 09:57	Álvaro García Juárez (ID54) Universidad de Castilla-La Mancha <i>Enabling Aerospace Innovation with Graphene-Reinforced Metal Alloys Via Scalable Advanced Shaping Technologies</i>
09:57 – 10:09	Alfonso J. Carrillo (ID58) ITQ, UPV-CSIC <i>Towards Compositional Optimization of Multicomponent Metallic Nanoparticles via Exsolution from Double Perovskite Electrodes</i>
10:08 – 10:21	Ali Sarp Uyandiran (ID75) Czech Technical University in Prague (Czech Republic) <i>Fabrication of Multi-Material Stator Core with Advanced Additive Manufacturing</i>
10:21 – 10:33	Stefano Piccardo (ID18) RMIT Europe, ICN2 <i>Developing New Sustainable Aluminium Coatings via Physically Informed Continuum- Scale Modelling</i>
10:33 – 10:45	Lucia Abengochea Quilez (ID14) Universidad de Zaragoza <i>Nanomaterial-based photodynamic coatings for indwelling medical devices</i>

Contributed Lectures VI – Sala de Graus Lletres UAB

Graphene, Growth and Mechanical Properties

Session Chair: Esther Barrena

09:45 – 09:57	Esteve Ribas Saurí (ID95) ICN2, CSIC & BIST <i>In-Situ NAP-XPS Investigation of Analyte Interactions with Nanoporous Graphene</i>
09:57 – 10:09	Piotr Ciochon (ID119) ICN2, CSIC & BIST <i>Towards Real-World Applications of Nanoporous Graphene: Production and Stability</i>
10:08 – 10:21	Mercedes Linares-Moreau (ID120) ICMAB-CSIC <i>In Situ Structural and Surface Evolution of Heteroepitaxial Cu-MOFs in Controlled Environments</i>
10:21 – 10:33	María Victoria Axelrad Tinoco (ID53) Universidad de Castilla-La Mancha <i>Elucidating Embrittlement Phenomena in Filaments for Material Extrusion of Ceramics/3YSZ</i>
10:33 – 10:45	Pablo Arranz (ID11) CIDAUT <i>Experimental Analysis of Elastic and Damping Properties of Density-Gradient Open Cell PU Foam for Acoustic Insulation</i>
10:45 – 11:15	COFFEE BREAK & Poster Session B (see the list of posters on page 23) EXHIBITION (HALL)

Plenary Session IV – Auditori Lletres UAB

Keynote Lecture II

Session Chair: TBD

11:15 – 11:45	Montse Casas CIC EnergiGUNE – Vitoria-Gasteiz <i>Title TBD</i>	Invited
---------------	---	----------------

Parallel Sessions

Contributed Lectures VII – Auditori Lletres UAB

Functional Polymers

Session Chair: Ester Vázquez

11:48 – 12:00	Rubén Corcuera (ID59) INMA CSIC / Universidad de Zaragoza <i>Fabrication of Epitaxial Hafnium-Zirconium Oxide Thin Films by Polymer Assisted Deposition</i>
12:00 – 12:12	Cristina Martín Jiménez (ID20) IRICA / Universidad de Castilla-La Mancha <i>From Biodegradation to 3D Polymeric Scaffolds: Graphene Derivatives for Biomedical Applications</i>
12:12 – 12:24	Jesús Fernández (ID92) Universidad de Valladolid <i>Reversible Covalent Chemistry as a Strategy for Recycling Cross-Linked Cellular Thermoplastics</i>
12:24 – 12:36	Paolo Sebastiano Floris (ID21) EURECAT <i>Towards generative design of SSbD polymers</i>
12:36 – 12:48	Sergio Lucarini (ID128) BCMaterials <i>Magnetically enhanced self-healing in magnetoactive polymers</i>
12:48 – 13:00	Miguel Ángel Rodríguez-Pérez (ID94) Universidad de Valladolid <i>Micrometric Nanoporous Polymeric Particles – Validation of a New Material to Be Used in Vacuum Insulation</i>

Contributed Lectures VIII – Sala de Graus Lletres UAB

Materials for Biomedicine and Computing Strategies in Materials Science

Session Chair: TBD

11:48 – 12:00	Isabel Bescos (ID26) Instituto de Investigación Sanitaria de Aragón (IIS Aragón) <i>Hybrid Nanoparticles Encapsulating Indocyanine Green and Copper Sulfide for Antimicrobial Photodynamic Therapy Against Multidrug-Resistant Bacterial Infections</i>
----------------------	--

12:00 – 12:12	Arántzazu González-Campo (ID35) ICMAB-CSIC <i>Giant Vesicles for Cell Membrane Mimicry; Towards Artificial Red Blood Cells</i>
12:12 – 12:24	José García-Delgado (ID15) Universidad de Castilla-La Mancha <i>Conductive Hydrogel-Based Sensor for Monitoring Precision Grip in Hand Rehabilitation</i>
12:24 – 12:36	Ana Barragán (ID62) IMDEA Nanociencia <i>Generating Antiaromaticity in Polycyclic Conjugated Hydrocarbons by Thermally Selective Skeletal Rearrangements at Interfaces</i>
12:36 – 12:48	Alberto Fraile (ID56) ICN2, CSIC & BIST <i>ML + MD optimization of Synthesis routes of catalytic nanoparticles</i>
12:48 – 13:00	TBD
13:00 – 14:30	LUNCH & Poster Session B (see the list of posters on page 23) EXHIBITION (HALL)

Parallel Sessions

Contributed Lectures IX – Auditori Lletres UAB

Magnetism, Ferroelectricity and Spintronics

Session Chair: TBD

14:30 – 14:42	Aitor Arredondo López (ID1) Universitat Autònoma de Barcelona <i>Switching Magnetism with Voltage: Advanced Energy-Efficient Co-Ni-based Magnetoelectric Devices</i>
14:42 – 14:54	María Paulina Morales-Ramírez (ID60) INMA CSIC / Universidad de Zaragoza <i>Epitaxial Growth of Hafnia-Based Ferroelectric Films on Novel Bottom Electrodes</i>
14:54 – 15:06	Mikhail Otrokov (ID4) INMA CSIC / Universidad de Zaragoza <i>Revisiting Magnetic Anisotropy and Curie Temperatures of the Chromium Chalcogenide Two-Dimensional Janus Ferromagnets</i>

15:06 – 15:18	Pablo Ares (ID27) Universidad Autónoma de Madrid <i>Magnetic Field Screening by 2D Materials</i>
15:18 – 15:30	Luca Schio (ID118) Consiglio Nazionale delle Ricerche (CNR) <i>On-Surface Radical Encapsulation for Quantum-Ready 2D Spin Platforms</i>
15:30 – 15:42	Manuela Garnica (ID3) IMDEA Nanociencia <i>Microscopic Insights into Magnetic Warping and Time-Reversal Symmetry Breaking in Topological Surface States of Rare-Earth-Doped Bi₂Te₃</i>
15:42 – 15:54	Sofia de Oliveira Parreiras (ID29) IMDEA Nanociencia <i>Tailoring The Magnetic Properties of 2D Supramolecular Assemblies by Coordination on Surfaces</i>
15:54 – 16:06	BREAK - PAUSE

Contributed Lectures X – Sala de Graus Lletres UAB

Energy Storage and Environmental Applications

Session Chair: Emigdio Chávez

14:30 – 14:42	Vuk Radmilović (ID85) University of Belgrade (Serbia) <i>Solution Meets Function: From Nanowire Welding to Spinel Storage</i>
14:42 – 14:54	M. Chiara Spadaro (ID114) University of Catania (Italy) <i>Zn-based nanostructured electrodes for electrochemical energy storage</i>
14:54 – 15:06	Judith Miralda-Jalle (ID19) University of Limerick (Ireland) <i>Mechanistic Understanding of Sustainable Nanostructured Hard Carbon from Lignosulfonate/Gelatin Fibers for Sodium-Ion Batteries Contribution</i>
15:06 – 15:18	María Bernechea (ID45) INMA CSIC / Universidad de Zaragoza <i>Strategies to improve the performance of carbon materials for their use as anodes in Sodium-ion batteries</i>

15:18 – 15:30	Beatriz Zornoza (ID12) INMA CSIC / Universidad de Zaragoza <i>Sustainable Hybrid Membranes for Energy and Environmental Applications</i>
15:30 – 15:42	Coral Salvo Comino (ID5) Universidad de Valladolid <i>Multifunctional Bioinspired Membrane for Selective Electrochemical Monitoring of Trace Metals</i>
15:42 – 15:54	Santiago Barrionuevo (ID64) Universidad de Zaragoza <i>Fluorescent graphene quantum dots-enhanced machine learning for the accurate detection and quantification of Hg²⁺ and Fe³⁺ in real water samples</i>
15:54 – 16:06	BREAK - PAUSE

Parallel Sessions

Contributed Lectures XI – Auditori Lletres UAB

Photovoltaics and (Opto)Electronics

Session Chair: xxxx

16:06 – 16:18	Helena Rabelo (ID42) ICN2, CSIC & BIST <i>Quantitative Strain Analysis of Zn₃P₂ Thin Films Via Precession-Assisted 4D-STEM</i>
16:18 – 16:30	Nika Anna Pérez (ID33) INMA CSIC / Universidad de Zaragoza <i>Green and Non-Toxic Solution Processing of Lead-Based Perovskite Solar Cells</i>
16:30 – 16:42	Krishna Kumar Yadav (ID97) Universidad de Salamanca <i>Optimization of 2D Materials for Advanced Solar Cells Using Engineered Metal Contacts</i>
16:42 – 16:54	Jorge Simancas (ID99) Universitat Jaume I <i>Scalable Perovskite Solar Modules Based on FAPI</i>

16:54 – 16:06	Ana Pérez Rodríguez (ID109) Universidad de Salamanca <i>Polarization-dependent photocurrent spectra and nanoscale characterization of 2D ReS2 field effect transistors</i>
17:06 – 17:18	Jaime Garrido Aldea (ID130) ICN2, CSIC & BIST <i>Magnon-electron scattering in layered semiconductor CrSBr</i>
17:18 – 17:30	Ercan Yilmaz (ID24) Bolu Abant Izzet Baysal University (Turkey) <i>Development of a High-Performance GaN-Based Photodetector for Enhanced Optoelectronic Applications</i>

Contributed Lectures XII – Sala de Graus Lletres UAB

Steels and Materials for Industry

Session Chair: xxxx

16:06 – 16:18	Mona Maadani (ID79) Marine Institute of Memorial University of Newfoundland (Canada) <i>Overprotection-Induced Precipitation in ICCP-Coated Steel: A Microscopic Study</i>
16:18 – 16:30	Adrian Pedrosa Valbuena (ID100) CIDAUT <i>Intelligent Models for High-Fidelity Mechanical Property Prediction In CFRP</i>
16:30 – 16:42	Marc Raventós Tato (ID105) ALBA-CELLS <i>Multimodal 4D-STEM-EDS Analysis Reveals Phase-Transformation Pathways in Medium-Mn Trip Steel</i>
16:42 – 16:54	Jorge Bautista Pérez (ID123) Universidad de Salamanca <i>Carbon Fibre Reinforced LM-PAEK Tapes Processed by Continuous Ultrasonic Welding</i>
16:54 – 16:06	Raquel Arroyo Sanz (ID31) Universidad de Burgos <i>Optimizing Moisture Resistance in Construction Materials Through Graphene Integration</i>
17:06 – 17:18	Paula Bucci (ID86) CIDAUT <i>Extraction of Soluble Fiber from Brewery Spent Grain Through Hydrothermal Treatments Using Supercritical Water and Predictive Simulations with AI</i>

17:18 – 17:30

Álvaro Urbaneja (ID52)

Universidad de Burgos

Enhancing Mechanical Strength in Mortars Using Shredded Wind Turbine Blades

17:40 – 18:00

AWARDS & CLOSING REMARKS – Auditori Lletres UAB

POSTER SESSIONS

Tuesday 25th November

Poster Session A (EXHIBITION HALL)

13:00 – 14:30 & 17:30 – 19:30	POSTER SESSION A
PSA1	Ana Belén Martínez Bonillo (ID138) ALBA-CELLS <i>Radical Science, a Project to Connect Frontier Science and Culture</i>
PSA2	Ana Arché Núñez (ID124) ALBA-CELLS <i>In-CAEM: Adaptations of ALBA Beamlines for Correlative In-Situ Characterization</i>
PSA3	Marc G. Cuxart (ID121) ICN2, CSIC & BIST <i>New photon-SPM laboratories at ALBA for correlative measurements</i>
PSA4	Daniel Martin Jimenez (ID110) ICMAB-CSIC <i>Advanced multi-purpose SPM Lab at ALBA: enabling correlative experiments in controlled gas and liquid environments</i>
PSA5	Emigdio Chavez Angel (ID107) ICN2, CSIC & BIST <i>Environmental Photon-SPM a New Facility at ALBA For inSitu Experiments: Ramen Lab</i>
PSA6	Núria Bagués (ID106) ALBA-CELLS <i>(S)TEM for In-Situ and Correlative Experiments</i>
PSA7	Esther Barrena (ID104) ICMAB-CSIC <i>An atomic-scale view of molecular heterostructures by combined scanning STM and nc-AFM in UHV</i>
PSA8	Ivan Pinto-Huguet (ID88) ICN2, CSIC & BIST <i>FFneT project: A deep learning model for detecting frequencies in FFT spectra</i>

PSA9	Ismaeel Javeria (ID7) ICMAB-CSIC <i>Machine learning assisted /Bayesian optimization fabrication of nanocarbon electrodes for energy storage applications</i>
PSA10	Álvaro López Cazalilla (ID50) Barcelona Supercomputing Center (BSC) <i>Case-oriented machine-learning interatomic potentials using SIESTA</i>
PSA11	Seyedeh Leila Panahi (ID125) ALBA-CELLS <i>Advanced STEM & XAS Characterization of Cu Tramp Element Segregation in Boron Steel (22MnB5)</i>
PSA12	Alba Cazorla (ID111) ICMAB-CSIC <i>GIWAXS Investigation of Structural Transitions in Operando BTBT-based OFETs</i>
PSA13	Athique Ahmed Ali (ID91) ICN2, CSIC & BIST <i>Atomic-Scale Characterization of Josephson Junctions for Superconducting Quantum Devices</i>
PSA14	Eduardo Domínguez-Ojeda (ID82) ICN2, CSIC & BIST <i>Atomic-Level Insight into Multi-Carbon Product Formation via CO₂RR on Chiral Catalysts</i>
PSA15	Sara Lafuerza Bielsa (ID115) INMA CSIC / Universidad de Zaragoza <i>Advanced Characterization of Epitaxial Five-Layer Aurivillius Films for Sustainable Electrocaloric Cooling</i>
PSA16	Abhijit Roy (ID136) INMA CSIC / Universidad de Zaragoza <i>Temperature-Driven Breakdown of Miscibility in Au–Pd Alloys Unveiled by In-Situ TEM</i>
PSA17	Bouzid Manaut (ID137) Sultan Moulay Slimane University, Béni Mellal (Morocco) <i>Lithium-based hydride perovskites LiXH₃ (X = Mo, Tc, Rh) for hydrogen storage applications: a DFT study</i>
PSA18	Maryam Ayad (ID140) Mohammed V University (Morocco) <i>First-Principles Study of Hydride Perovskite Materials for Advanced Hydrogen Storage</i>

PSA19	Amilcar Bedoya-Pinto (ID133) Universitat de València <i>Topological and 2D materials grown by molecular-beam epitaxy: Synthesis and applications from the ultra-high vacuum perspective</i>
PSA20	Imen Tbessi (ID101) ICMAB-CSIC <i>Improved methyl-paraben removal using Pt-Mn/TiO₂ aerogel for water remediation</i>
PSA21	Javier Blasco (ID46) INMA CSIC / Universidad de Zaragoza <i>Challenges in Achieving Multiferroicity in Mn-Doped Hybrid Improper Ferroelectrics</i>
PSA22	Alejandro Cuesta Troyano (ID32) ICMAB-CSIC <i>1D Carbon Heterostructures: Synthesis and Electron Tomography Reconstruction</i>
PSA23	Paula Novella-Rodríguez (ID13) + Flash Talk INMA CSIC / Universidad de Zaragoza <i>Developing New Chemical Approaches for Modulating the Antimicrobial Activity of Polyoxometalate-Polypeptide Hybrids</i>
PSA24	Isabela Alves de Albuquerque Bessa (ID38) + Flash Talk Universidade Federal Fluminense (Brazil) <i>Targeting Glioblastoma Via Adsorptive-Mediated Transcytosis Using Positively Charged Reduced Graphene Oxide</i>
PSA25	Alejandro Gómez González (ID37) + Flash Talk Universidad de Zaragoza <i>Molecular bilayers as a pathway to increase the efficiency of organic thermoelectric devices</i>
PSA26	Sara Fiori (ID96) + Flash Talk ICN2, CSIC & BIST <i>Engineering Functional Nanomaterials from Graphene Nanoribbons to Complex Nanoarchitectures</i>
PSA27	Jing Yu (IDadI-06) ICN2, CSIC & BIST; & IREC <i>Defect-Induced Spin Polarization as a Design Principle for Advanced Lithium–Sulfur Battery Catalysts</i>
PSA28	Elisa Ibañez Rodilla (ID41) + Flash Talk INMA CSIC / Universidad de Zaragoza <i>YBCO thin films for broad-band nanoSQUID operation</i>

PSA28**Emmanouil Nikolaos Charkiolakis (ID66) + Flash Talk**

ICN2, CSIC & BIST

Investigation of the Barocaloric Effect in a Cd-Based Hybrid Organic-Inorganic Perovskite-Like Compound

Wednesday 26th November
Poster Session B (EXHIBITION HALL)

10:45 – 11:15 & 13:00 – 14:30	POSTER SESSION B
PSB1	Gloria Subías (ID49) INMA CSIC / Universidad de Zaragoza <i>Exploring the ferroactive cations in lead-free Aurivillius ceramics for electrocaloric cooling applications</i>
PSB2	Isabel Jiménez Omeñaca (ID71) INMA CSIC / Universidad de Zaragoza <i>Exploring Multicaloric Effects in Ferroelectrics Under Uniaxial Stress for Clean Solid-State Cooling Applications</i>
PSB3	Faisal Alresheedi (ID139) Qassim University <i>The Effects of Titanium Additions on the Structural and Mechanical Properties of Stainless Steel-Nitride Thin Films</i>
PSB4	Mónica Benito (ID98) ICMAB-CSIC <i>Metal-Doped TiO₂ Photocatalysts Through Ball Grinding for H₂ Production</i>
PSB5	Mobin Safarzadeh Khosrowshahi (ID30) INMA CSIC / Universidad de Zaragoza <i>Microstructure Engineering of MgO-Stabilized ZrO₂ Ceramics by Surface Laser Melting: Toward Carbonate-Infiltrated Porous Membranes for CO₂ Separation</i>
PSB6	Sulaeman Akinde (ID22) Ogun State Institute of Technology Igbesa (Nigeria) <i>Coconut Shell-Derived Carbon Nanosheets Doped with Transition Metals for Sustainable Electrocatalysis: A Nigerian Case Study</i>
PSB7	Yajaira Elizabeth Pilamunga Viñan (ID47) INMA CSIC / Universidad de Zaragoza <i>Gas Permeance and Microstructural Influence of Directionally Solidified Eutectic MgO-ZrO₂ Porous Supports</i>
PSB8	Kashaf Ahsan (ID83) ICMAB-CSIC <i>Impact of Processing Conditions on the structure and morphology of non-fullerene acceptor Y7</i>

PSB9	Laila Sabry Ahmad Ali (ID87) Universitat Autònoma de Barcelona (UAB) <i>CO₂ conversion into valuable products using Cu-based polymeric nanocomposites</i>
PSB10	Cintia Virumbrales Ortiz (ID129) Universidad de Burgos <i>Smart Polymer Material for Simultaneous Extraction and Visual Detection of Nitrates in Drinking Water</i>
PSB11	Muthukumar Mariappan (ID134) Acharya Institute of Technology, Bangalore (India) <i>Needle insertion induced fracture in Soft Hydrogels</i>
PSB12	Juan García Serna (ID63) Universidad de Valladolid <i>Biofilms Based on Discarded Food</i>
PSB13	Alejandro Cortes-Bazo (ID67) Universidad Complutense de Madrid <i>Self-active protein nanoparticles as carriers for anti-cancer therapy</i>
PSB14	Jose Alejandro Romero-Antolín (ID39) Universidad Complutense de Madrid <i>Novel Antibacterial Poly(Ionic Liquid) Nanoparticles for Biomedical Applications</i>
PSB15	Iman Mattar (ID34) INMA CSIC / Universidad de Zaragoza <i>Multifunctional 3D-Printed Wound Dressings with Synergistic Antimicrobial and Anti-Inflammatory Properties</i>
PSB16	Pablo Ruiz Bozal (ID28) Universidad de Zaragoza <i>Copper Sulfide-Based Antimicrobial Nanoparticles for Photodynamic Therapy</i>
PSB17	João Ícaro Miranda Morais Garcia (ID69) University of São Paulo (Brasil) <i>Dry Heat Treatment of Jackfruit Starch: A Sustainable Strategy for Biomaterial Development</i>
PSB18	María Isabel Sánchez de los Santos (ID102) Universidad de Zaragoza <i>Nanostructured Sensing Substrates for Cost-Efficient Detection of Agricultural Pesticides</i>
PSB19	Nerea Manzano-Ramos (IDadl-02) Príncipe Felipe Research Center (CIPF) <i>Exploring the Design and Self Assembly of π-Conjugated Macroinitiators for Polypeptide-based Nanocarrier Development</i>

PSB20	María Medel (IDadi-04) Principe Felipe Research Center (CIPF) <i>Illuminating the Untreatable: Porphyrin Polypeptides for Overcoming Tumor Resistance via Light-Activated Therapy</i>
PSB21	Alan Ernesto Anaya Morales (IDadi-05) Technical University of Denmark (DTU), Denmark <i>Field-controlled Electronic Breathing Modes in Nanoporous Graphene</i>
PSB22	Javier Alda-Gómez (IDadi-08) ICMol, UIMM <i>Engineering Memristive Devices with 2D Materials for Neuromorphic Computing</i>
PSB23	José Troya (IDadi-09) ICMol, Univ. de Valencia & INMA, Univ. Zaragoza <i>Frustration-Engineered 2d Coordination Frameworks Yield Triangular and Kagomé Quantum-Spin-Liquid Candidates</i>
PSB24	Alejandro Regueiro (IDadi-10) ICMol, Univ. de Valencia <i>Spin-Crossover Effect in Self-Assembled Monolayers of Chiral Complexes</i>
PSB25	Beatriz Alba-Sangrós (IDadi-11) ICMol, RTMM <i>Overcoming Oxidation Pathways in the Formation of Chiral Cysteine–MoS₂ Composites</i>
PSB26	Roberto Herraiz (IDadi-13) Universitat de València (UV) / Universitat Politècnica de València (UPV) <i>Novel Method for Shielding Effectiveness Measurements of Large Samples in 5G Frequency Range</i>