

4th Conference on Advanced Materials in Spain

AMatS 2025

CONFERENCE PROGRAM

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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	OPENING CEREMONY Session Chairs: 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 – Aragon 16:45 – 17:00 Miguel Angel Rodriguez – 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 – Castilla la Mancha 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: **TBD**

08:30 – 09:00	REGISTRATION	
09:00 – 09:45	José A. Martín Gago ICMM-CSIC – Madrid Title TBD	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 TBD	
10:45 – 11:15	COFFEE BREAK – EXHIBITION (HALL)	

Contributed Lectures II – Auditori Lletres UAB

Electronic and Magnetic Applications

Session Chair: xxxx

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 TBD
12:15 – 12:27	Speaker Name (ID: Platinum Sponsor 3) HORIBA / Alava TBD

Flash Talks I – Auditori Lletres UAB

Session Chair: xxxx

12:30 – 12:33	María Elena Hernández García (ID112) Universidad de Salamanca <i>Study on Ultrasonic Welding of Flax/Polypropylene Composites Tapes</i>
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12:33 – 12:36	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>
12:36 – 12:39	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>
12:39 – 12:42	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>
12:42 – 12:45	Sara Fiori (ID96) ICN2, CSIC & BIST <i>Engineering Functional Nanomaterials from Graphene Nanoribbons to Complex Nanoarchitectures</i>
12:45 – 12:48	Alex Mutale (ID25) Bolu Abant Izzet Baysal University (Turkey) <i>Role of High-k Materials in Developing Advanced Photodetector Modules</i>
12:48 – 12:51	Alberto Concellón (ID73) INMA CSIC / Universidad de Zaragoza <i>Functional Materials Inspired by Liquid Crystals: Engineering Emulsions for Sensing, Optics, and Smart Actuators</i>
12:51 – 12:54	Alejandro Gómez González (ID37) Universidad de Zaragoza <i>Molecular bilayers as a pathway to increase the efficiency of organic thermoelectric devices</i>
13:00 – 14:30	LUNCH & Poster Session I (see the list of posters on page 20) EXHIBITION (HALL)

Plenary Session III – Auditori Lletres UAB

Keynote Lecture I

Session Chair: **TBD**

14:30 – 15:00

Martin Švec

FZU Czech Academy of Sciences – Prague (Czech Republic)

Title **TBD**

Invited

Flash Talks II – Auditori Lletres UAB

Session Chair: **xxxx**

15:00 – 15:03

Carina Babu Maliakkal (ID81)

ICN2, CSIC & BIST

Electron Microscopy Based Failure Analysis of Undoped-2DEG Semiconductor Devices

15:03 – 15:06

Francesco Salutari (ID80)

ICN2, CSIC & BIST

In-depth TEM characterization of selective area epitaxy Zn3P2 nanopramids and thin films grown via MOCVD

15:06 – 15:09

Elisa Ibañez Rodilla (ID41)

INMA CSIC / Universidad de Zaragoza

YBCO thin films for broad-band nanoSQUID operation

15:09 – 15:12

Emmanouil Nikolaos Charkiolakis (ID66)

ICN2, CSIC & BIST

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

15:12 – 15:15

Anjana Baby (ID44)

Jozef Stefan Institute (Slovenia)

Plasma-tailored ZnNi-layered double hydroxides for advanced supercapacitors

15:15 – 15:18

Utsa Sarkar (ID89)

Institute of Nano Science and Technology (India)

Toward High-Performance Flexible Electronics: The Role of One-Dimensional Tellurium Nanocomposites in Advanced Energy Harvesting

15:18 – 15:30

BREAK – PAUSE

Parallel Sessions
Contributed Lectures III – Auditori Lletres UAB
Catalysis for Energy and Environmental Science
Session Chair: xxxx

15:30 – 15:42	Andrea De Zanet (ID132) Loughborough University <i>Synthesis and Optimisation of Platinum Supported Carbides for Sustainable Hydrogen Technologies</i>
15:42 – 15:54	David Llorens Rauret (ID8) ICN2, CSIC & BIST <i>Activation Mechanisms in Transition Metal Tungstates: Uncovering the Exceptional Performance of CoWO₄ for OER</i>
15:54 – 16:06	Ann Charise Cariño (ID76) IREC <i>Controlling the Atomic Layer Deposition of TiO₂ on Mesoporous Al₂O₃ for Fischer-Tropsch Synthesis application</i>
16:06 – 16:18	Leticia Sánchez Uriel (ID16) INMA CSIC / Universidad de Zaragoza <i>Heterogeneous enzyme-mimicking catalysts</i>
16:18 – 16:30	Cippora Magagnin (ID108) IREC <i>Atomic Layer Deposited ZnO enhanced Cu/Al₂O₃ catalysts for sustainable methanol production</i>
16:30 – 16:42	Ana M. Lopez Periago (ID43) ICMAB-CSIC <i>Synthesis of Porous Materials for the Efficient Hydrogenation of CO₂ to Methanol</i>
16:42 – 16:54	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>
16:54 – 17:06	Reyes Mallada (ID126) INMA CSIC / Universidad de Zaragoza <i>On the Microwave effects on catalytic solid oxides for CO₂ utilization</i>
17:06 – 17:18	Kevin Varghese Alex (ID55) Jožef Stefan Institute (Slovenia) <i>Photocatalytic Activity of Lead-Free High Entropy Oxide Pellet</i>

17:18 – 17:30

María-Jesús Blesa (ID17)

INMA CSIC / Universidad de Zaragoza

Pyrimidine-Based Molecular Photosensitizers as Dyes for DSSCs and Hydrogen Photoelectrochemical Generation from Water

Contributed Lectures IV – Sala de Graus Lletres UAB

Functional Molecular Materials

Session Chair: **xxxx**

15:30 – 15:42

David Ecija Fernández (ID10)

IMDEA Nanociencia

The Awakening of on-Surface Synthesis

16:54 – 17:06

Dayra Lisseth Riaño Núñez (ID51)

Universidad de Zaragoza

Langmuir-Blodgett Thin Films of P,P'-Bis(Aniline)-Substituted Polyenes for Molecular Thermoelectrics

15:42 – 15:54

Yessenia Alexandra Falconí Castillo (ID36)

Universidad de Zaragoza

Nanoarchitectonics of Functional Monolayers: Toward Scalable Molecular Electronic Materials

15:54 – 16:06

Nahir Vadra Garcia (ID103)

Adam Mickiewicz University (Poland)

Emergent Thermo- and Baro-Responsive Luminescence in a Cr³⁺-Based Anderson Polyoxometalate and Its Supramolecular Hybrids

16:06 – 16:18

Judith Martín de León (ID90)

University of Valladolid

Molecular rearrangement of PEI induced by CO₂ saturation conditions

16:18 – 16:30

Aleksandra Masulovic (ID74)

INMA CSIC / Universidad de Zaragoza

Tuning molecular designs for functional soft-materials: Positional control of pyridine nitrogen in bent-core molecules

16:30 – 16:42

Tomás Torres (ID2)

Universidad Autónoma de Madrid

Subphthalocyanines: Singular Aromatic Non-Planar and Chiral Molecules

16:42 – 16:54

Elzbieta Regulska (ID68)

Universidad de Castilla-La Mancha

Linearly-Fused Pi-Extended Phosphorus Heterocycles for Materials Science

17:06 – 17:18	Jorge Lobo-Checa (ID93) ----- Not presenting INMA CSIC / Universidad de Zaragoza <i>Synthesizing 2D-covalent networks combining chirality and non-planar Sub-phthalocyanine precursors on the surface of Au(111)</i>
17:18 – 17:30	Carlos Romero-Nieto (ID70) Universidad de Castilla-La Mancha <i>Pi-Extended Phosphorus Heterocycles for Controlling 3D Nanomaterials</i>
17:30 – 19:30	Refreshments & Poster Session (see the list of posters on page 20) 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: **TBD**

08:30 – 09:00 **REGISTRATION**

09:00 – 09:45 **Mads Brandbyge**
DTU – Lyngby (Denmark)
Title TBD

Plenary

Parallel Sessions

Contributed Lectures V – Auditori Lletres UAB

Alloys, Composites and Coatings

Session Chair: **xxxx**

09:45 – 09:57 **Álvaro García Juárez (ID54)**
Universidad de Castilla-La Mancha
Enabling Aerospace Innovation with Graphene-Reinforced Metal Alloys Via Scalable Advanced Shaping Technologies

09:57 – 10:09 **Alfonso J. Carrillo (ID58)**
ITQ, UPV-CSIC
Towards Compositional Optimization of Multicomponent Metallic Nanoparticles via Exsolution from Double Perovskite Electrodes

10:08 – 10:21 **Ali Sarp Uyandiran (ID75)**
Czech Technical University in Prague (Czech Republic)
Fabrication of Multi-Material Stator Core with Advanced Additive Manufacturing

10:21 – 10:33 **Stefano Piccardo (ID18)**
RMIT Europe, ICN2
Developing New Sustainable Aluminium Coatings via Physically Informed Continuum-Scale Modelling

10:33 – 10:45 **Lucia Abengochea Quilez (ID14)**
Universidad de Zaragoza
Nanomaterial-based photodynamic coatings for indwelling medical devices

Contributed Lectures VI – Sala de Graus Lletres UAB

Graphene, Growth and Mechanical Properties

Session Chair: **xxxx**

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 – Sponsored by CREATEC & Poster Session II (see the list of posters on page 22) 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
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Parallel Sessions

Contributed Lectures VII – Auditori Lletres UAB

Functional Polymers

Session Chair: **xxxx**

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	Karina Núñez Carrero (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	Victoria Bernardo (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: **xxxx**

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>
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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	Andrés Martínez Esteban (ID9) Universidad de Zaragoza <i>Physics-Informed Neural Networks with Dynamical Boundary Constraints</i>
12:48 – 13:00	Alberto Fraile (ID56) ICN2, CSIC & BIST <i>ML + MD optimization of Synthesis routes of catalytic nanoparticles</i>
13:00 – 14:30	LUNCH & Poster Session II (see the list of posters on page 22) EXHIBITION (HALL)

Parallel Sessions

Contributed Lectures IX – Auditori Lletres UAB

Magnetism, Ferroelectricity and Spintronics

Session Chair: **xxxx**

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: xxxx

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 Freitas (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

Extraction of Soluble Fiber from Brewery Spent Grain Through Hydrothermal Treatments Using Supercritical Water and Predictive Simulations with Artificial Intelligence

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) ICMA-B-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) ICMA-B-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	Bouazid 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>

Wednesday 26th November

Poster Session **B** (EXHIBITION HALL)

10:45 – 11:15 & 13:00 – 14:30	POSTER SESSION B
PSB1	Nefiseh Shahgholi Dastgerdi (ID72) INMA CSIC / Universidad de Zaragoza <i>Tensile Strained Epitaxial (Ba,Sr)TiO₃ Films on KTaO₃ Substrates for Clean and Efficient Electrocaloric Cooling</i>
PSB2	Gloria Subías (ID49) INMA CSIC / Universidad de Zaragoza <i>Exploring the ferroactive cations in lead-free Aurivillius ceramics for electrocaloric cooling applications</i>

PSB3	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>
PSB4	Faisal Alresheedi (ID139) Qassim University <i>The Effects of Titanium Additions on the Structural and Mechanical Properties of Stainless Steel-Nitride Thin Films</i>
PSB5	Mónica Benito (ID98) ICMA-B-CSIC <i>Metal-Doped TiO₂ Photocatalysts Through Ball Grinding for H₂ Production</i>
PSB6	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>
PSB7	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>
PSB8	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>
PSB9	Kashaf Ahsan (ID83) ICMA-B-CSIC <i>Impact of Processing Conditions on the structure and morphology of non-fullerene acceptor Y7</i>
PSB10	Laila Sabry Ahmad Ali (ID87) Universitat Autònoma de Barcelona (UAB) <i>CO₂ conversion into valuable products using Cu-based polymeric nanocomposites</i>
PSB11	Beatriz Martín Gómez (ID61) Universidad de Valladolid <i>Sustainable Polymer Foam Materials From Recycled HDPE, LDPE, PP and PS via Supercritical CO₂ and Water Foaming</i>
PSB12	Cintia Virumbrales Ortiz (ID129) Universidad de Burgos <i>Smart Polymer Material for Simultaneous Extraction and Visual Detection of Nitrates in Drinking Water</i>

PSB13	Muthukumar Mariappan (ID134) Acharya Institute of Technology, Bangalore (India) <i>Needle insertion induced fracture in Soft Hyhdrogels</i>
PSB14	Juan García Serna (ID63) Universidad de Valladolid <i>Biofilms Based on Discarded Food</i>
PSB15	Alejandro Cortes-Bazo (ID67) Universidad Complutense de Madrid <i>Self-active protein nanoparticles as carriers for anti-cancer therapy</i>
PSB16	Jose Alejandro Romero-Antolín (ID39) Universidad Complutense de Madrid <i>Novel Antibacterial Poly(Ionic Liquid) Nanoparticles for Biomedical Applications</i>
PSB17	Iman Mattar (ID34) INMA CSIC / Universidad de Zaragoza <i>Multifunctional 3D-Printed Wound Dressings with Synergistic Antimicrobial and Anti-Inflammatory Properties</i>
PSB18	Pablo Ruiz Bozal (ID28) Universidad de Zaragoza <i>Copper Sulfide-Based Antimicrobial Nanoparticles for Photodynamic Therapy</i>
PSB19	Miranda Moraes Garcia João Ícaro (ID69) University of São Paulo (Brasil) <i>Dry Heat Treatment of Jackfruit Starch: A Sustainable Strategy for Biomaterial Development</i>
PSB20	María Isabel Sánchez de los Santos (ID102) Universidad de Zaragoza <i>Nanostructured Sers Substrates for Cost-Efficient Detection of Agricultural Pesticides</i>



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