ECSAMM

2nd Early Career Symposium on Advanced Molecular Materials

#ECSAMM

April 16 - th 17th 2026

ICMol - Assemby Hall

ICMOL | ECSAMM | VNIVERSITAT DE VALÈNCIA | EXCELENCIA MARÍA DE MAEZTU

RSEQ Real Sociedad Española de Química

GRUPO ESPECIALIZADO NANOCIENCIA Y MATERIALES MOLECULARES

Materials Horizons

Materials Advances

GOBIERNO DE ESPAÑA MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

Nanoscale Advances

Nanoscale Horizons

Nanoscale

ICMOL INSTITUTO DE CIENCIA MOLECULAR UNIVERSITAT DE VALÈNCIA

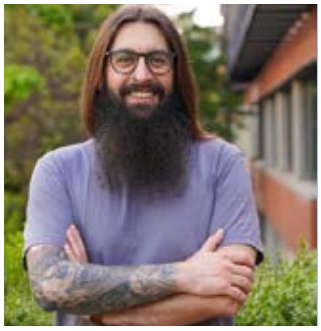
EXCELENCIA MARÍA DE MAEZTU

VNIVERSITAT DE VALÈNCIA

Scientific Committee

Isabel Abánades Lázaro
ICMol-UV

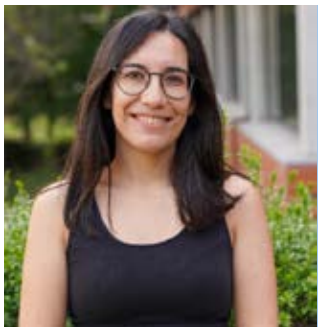
Roger Sanchis Gual
ICMol-UV



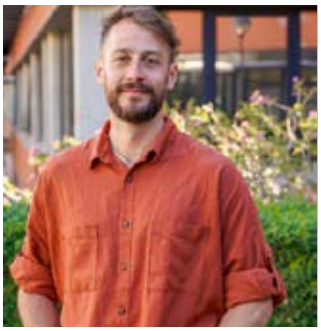
Joaquín Soriano López
ICMol-UV

Thais Maria Grancha Marco
ICMol-UV

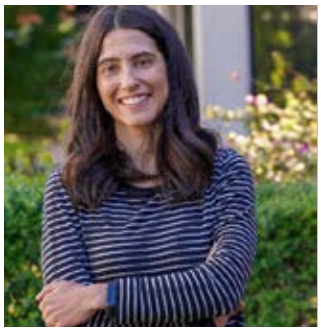
Ramón Torres Cavanillas
ICMol-UV



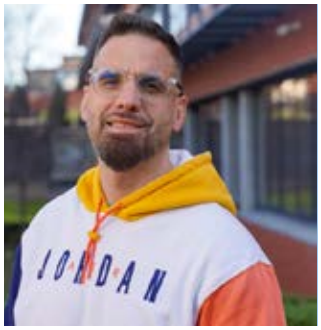
Lidón Gil Escrig
ICMol-UV



Matteo Andrea Lucherelli
ICMol-UV



Rebeca Martínez Haya
ICMol-UV



Jesús Ferrando Soria
ICMol-UV

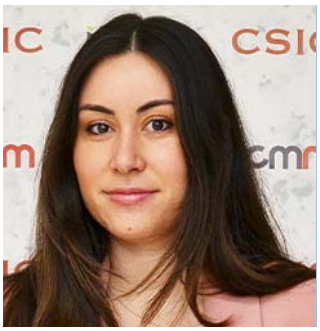
Invited Speakers

Ángela Pérez Pérez

VP Business Development-Health in Code

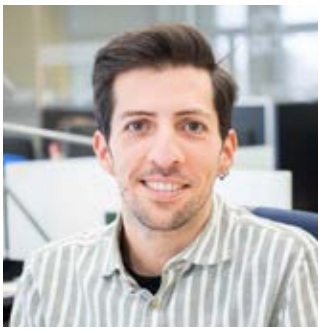
Giulia Longo

UPV



Celia Castillo Blas

Institute of Materials Science of Madrid (ICMM-CSIC),



Albert Solé

Universitat Rovira i Virgili

About ECSAMM 2026

The Institute of Molecular Science (ICMol) at the University of Valencia organizes the 2nd Early Career Symposium on Advanced Molecular Materials (ECSAMM), held on April 16–17, 2026, at the Parc Científic.

This two-day scientific event, with free registration, is aimed at master's students, PhD candidates, and postdoctoral researchers, providing a platform to present their work, foster collaboration, and highlight the diversity of research at ICMol.

The program includes oral presentations (5, 20, and 30 minutes) and poster sessions, covering key research areas such as MOFs, 2D materials, molecular spin science, electronic materials, biomaterials, energy, and sustainability.

Networking activities, including daily cocktail sessions alongside poster exhibitions, will encourage interaction among participants.

ECSAMM is a student-led initiative driven by early-career researchers at ICMol, promoting collaboration and increasing the visibility of ongoing research within the institute.

Topics:

1 -Advances in Metal-Organic Frameworks (MOFs)

2 - 2D Materials

3 - Molecular Spin Science and Technology

4 - Materials and Processes for Electronics

5 - Molecular Biomaterials: Structure, Organization, and Function

6 - Materials for Energy Applications

7 - Sustainability and Environment

Venue

Salón de Actos
Instituto de Ciencia Molecular
Catedrático José Beltrán Martínez nº 2
46980 Paterna
Spain

About ICMol

Founded in 2000, the Institute of Molecular Science (ICMol) conducts high-quality research in materials science focused on nanoscience from a molecular perspective, studying functional molecules and materials with magnetic, electrical, and optical properties through experimental and theoretical approaches.

Its research spans from molecular design to device fabrication and characterization, with applications in areas such as molecular magnetism, electronics, spintronics, sensing, catalysis, and photochemistry.

ICMol has been recognized three times as a María de Maeztu Unit of Excellence (2016, 2020, 2025), highlighting its international leadership. The institute is a leading center in molecular magnetism and electronics, with expanding activity in spintronics, MOFs, and 2D materials. Its director, Eugenio Coronado, has led key European initiatives in the field. Between 2015 and 2022, ICMol researchers secured thirteen ERC grants across all major categories.

Program 16th

Jueves 16			
14h00-14h45	Registration		
14h45-15h00	Opening session		
15h00-15h30	Industry Perspective Talk	Invited 1	Ángela Pérez
15h30-15h45	Driven by recognition: Thermodynamics towards Mechanically Interlocked Nanotubes	Oral	Manuel Pérez Escribano
15h45-16h00	Electrostatic MoS2 Functionalization with a Chromium Chiral Emitter for Chiroptics and Spintronics	Oral	Beatriz Alba Sangrós
16h00-16h15	Beyond Compression: Polymerization in 2D Hybrid Metal Halides under High Pressure	Oral	Peijie Zhang
16h15-16h45	Coffee Break		
16h45-17h00	Reticular Engineering of 2D Coordination Networks for Quantum Spin Liquids and Molecular Qubits	Oral	José Troya Martínez
17h00-17h15	Intrinsic Fluorescence-Spin Crossover Synergy in a 3D Fe(II) Hofmann-Type Framework Built from 1,6-dipyridylpyrene and [MI(CN)2]- (MI = Ag, Au) bridging ligands	Oral	Alejandro Orellana Silla
17h15-17h30	DRAGON: A Computational Framework for Diabatization of Multiple Excited Sates in Multiple Fragments Based on Fragment Particle–Hole Densities	Oral	Pau Armada
17h30	Poster session & networking / COCKTAIL		

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Program 17th

Viernes 17			
9h30-10h00	Heating with light: non-equilibrium annealing for semiconductor materials and their applications	Invited 2	Giulia Longo
10h00-10h15	Large Area Close-Space Sublimation Enables Efficient and Stable Perovskite Solar Cells	Oral	Inma Gomar Fernández
10h15-10h30	Improved Solar-Driven Hydrogen Generation via Anodized WO_3 Photoelectrodes	Oral	Ginebra Sánchez García
10h30-10h45	Hybrid Copper Sulfide/Lignin Composites for Thermoelectric Applications	Oral	Seong Yuen Tong
10h45-11h00	Fully Ab Initio modelling of Spin Relaxation in Gd3+ compounds for Quantum and Magnetic Resonance Applications	Oral	Silvia Gimenez Santamarina
11h00-11h30	Coffee Break		
11h30-12h00	Advancing Pair Distribution Function Analysis to Uncover New Interactions in Materials	Invited 3	Celia Castillo
12h00-12h15	Structural and Optical Study on Defect-Functionalized Multivariate Modulated Zr-UiO-66 Under High-Pressure	Oral	Pablo Botella Vives
12h15-12h30	Water treatment sludge as catalyst for CO2 valorization	Oral	Alberto Pérez
12h30-12h45	Prussian Blue-Decorated BaTiO3 Nanostructures: Synthesis and Optimization for Enhanced Wastewater Remediation and Cancer Therapy	Oral	Javier Alda
12h45-13h00	Translating π-adsorptive sites across MOF chemistries for water-tolerant CO2 capture	Oral	Víctor Carratalá Muñoz
13h00-13h15	Porous Metal Organic Nanosheets (Mons) For Colorimetric Voc Detection	Oral	Sergio Ruiz Gamarra
13h15-13h30	Solvent-responsive pyrazolate peptide frameworks: navigating their thermodynamic landscape	Oral	Alechania Misturini
13h30-15h30	Lunch Break/ Poster session		
15h30-16h00	Mechanistic Insights into Polyoxometalate-Enhanced Multi-Electron Catalysis	Invited 4	Albert Solé
16h00-16h15	Cooperative Functionalities in Multivariate Modulated Zr_6-UiO-66 for Enhanced CO_2 Adsorption	Oral	Carmen Rosales Martínez
16h15-16h30	Ultrastable Pyrazolate Porphyrin Metal-Organic Frameworks for gas adsorption	Oral	María Lucía Tamayo Fraile
16h30-16h45	First-Observed Calcium Silicon Carbonate: Metastability and Implications in Earth's Lower Mantle Chemistry	Oral	Benedito Donizeti Botan Neto
16h45-17h00	From Degradation to Function: Insights into the Biomedical Performance of Heavy 2D Pnictogens	Oral	Pau Congost
17h00-17h15	Click-enabled Grafting for Adaptive Chiral Recognition in Porous Crystals	Oral	Guillermo Gómez Tenés
17h15-17h30	Closing and oral/poster Award ceremony		

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Marta Bravo Benita	Comparative Physicochemical and Photothermal Characterization of Carbon-Based Nanomaterials	P01
Mateo Calle-Velásquez	Spectroscopy to characterize the insertion of pH-sensitive peptide LAH4 in photoswitchable lipid membranes	P02
Javier Estarelles Nacher	Controlling Anodization Chemistry to Unlock High-Performance WO3 Nanostructures for Photoelectrocatalytic Water Treatment	P03
Jaime García Caba	Surface-Anchored MOF Coatings on PVA/Chitosan Foams for Water Remediation	P04
Lidia Garcia Lopez	Synthesis and Characterization of a Copper-Based MOF for Selective Amino Acid Separation	P05
Laura González Cervera	Implementation of 2D Materials in Memristive Materials for Neuromorphic Computing	P06
Raquel Hernández Benítez	Design and Enantioselective Performance of a Copper-Based Metal-Organic Framework	P07
Federico Juarez	Electrochemical behaviour of NiFe-LDH, kinetics and performance	P08
Marc López	Covalent Surface Functionalization of 2D-Bismuthene Nanosheets	P09
Higinio Maqueda	Reversible I2 Uptake Induces Record-High Spin-Crossover Hysteresis in a Fe(II) Hofmann-Type MOF	P10
Paula Martín Calero	Defect Engineering through Multivariate Modulation for Enhanced Water Remediation in MOFs	P11
Luuk Muris	Systematic approach in unraveling the relation between crystallographic and Raman spectroscopy of Layered Hydroxides	P12
Geraldine Sánchez	Predicting the Optical Properties of Gold Nanoclusters via XGBoost Machine Learning Analysis	P13