



PHOTO-CD

BRIGHT



Programme

International Conference Hybrid Materials for Environmental Applications HyMEA 2026

6-8 July 2026

Villa Universitaria

Alicante



Universitat d'Alacant
Universidad de Alicante



UCLM 40
aniversario
Universidad
Castilla-La Mancha



GOBIERNO
DE ESPAÑA

MINISTERIO
DE CIENCIA, INNOVACIÓN
Y UNIVERSIDADES



AGENCIA
ESTATAL DE
INVESTIGACIÓN



GENERALITAT
VALENCIANA

Conselleria de Educació, Cultura,
Universitats i Treball



International Conference Hybrid Materials for Environmental Applications HyMEA 2026

This document contains the programme of the **International Conference Hybrid Materials for Environmental Applications (HyMEA 2026)** that will be held in Alicante, from 6th to 8th July 2026.



HyMEA Organizing Committee

Elena Serrano Torregrosa (University of Alicante)

Noemi Linares Pérez (University of Alicante)

Cristina Martín Álvarez (University of Castilla-La Mancha)

Álvaro Díaz Verde (University of Alicante)

Javier García Martínez (University of Alicante)

Enquiries

hymeananomol@gmail.com



MONDAY July 6th

INTRODUCTORY SESSION

- 16:30 – 17:30 Welcome reception
- 17:30 – 18:00 HyMEA opening ceremony

INVITED TALKS

Beyond conventional photophysics: emerging materials and new paradigms

- 18:10 – 19:00 Cristina Martín
*Faculty of Environmental Sciences and Biochemistry,
University of Castilla-La Mancha. Toledo, Spain.*

Advances in smart windows for solar heating control

- 19:05 – 19:55 Jordi Hernando
*Chemistry department, University of Barcelona.
Barcelona, Spain.*



TUESDAY July 7th

INVITED TALKS

Selective catalytic depolymerization of plastic waste

Carmen Moreno

9:30 – 10:20

*Instituto di Chimica dei Composti Organo Metallici,
Consiglio Nazionale delle Ricerche. Florence, Italy.*

Colloidal nanosemiconductors for the fabrication of hybrids used in photocatalysis and energy storage

María Bernechea

10:20 – 11:10

*Institute of Nanoscience and Materials of Aragón.
Aragón, Spain*

11:10 – 11:50

Coffee Break

Guiding zeolite synthesis as a hybrid system: from OSDA-framework interactions to machine learning-driven designs

Manuel Moliner

11:50 – 12:40

*Chemical Technology Joint Research Institute (ITQ),
Polytechnic University of Valencia. Valencia, Spain.*



TUESDAY July 7th

SHORT PRESENTATIONS

Hybrid mesoporous zeolitic materials derived from solution-phase aluminosilicate species

N. T. Ramírez-Márquez¹, C. A. Trujillo², N. Linares¹, J. García-Martínez¹

12:40 – 13:00

¹Laboratorio de Nanotecnología Molecular, Departamento de Química Inorgánica, Universidad de Alicante. Alicante, Spain.

²Laboratorio de Catálisis Heterogénea, Departamento de Química, Facultad de Ciencias, Universidad Nacional de Colombia. Bogotá, Colombia.

13:00 – 15:00

Lunch time

Circular valorization of leather footwear waste into high-performance H₂S removal catalysts

M. Abid¹, M. Martínez-Escandell¹, R. M. Arán-Ais², E. Albert-Navarro³, F. Arán-Ais³, J. Silvestre-Albero¹

15:00 – 15:20

¹Advanced Materials Lab, Inorganic Chemistry Department, University of Alicante. Alicante, Spain.

²Instituto de Electroquímica, Universidad de Alicante. Alicante, Spain.

³INESCOP, Footwear Technological Centre. Elda, Spain.

FeWO_x/g-C₃N₄ hybrid materials for efficient pollutant removal in water

Á. Cacicedo¹, R. Boix¹, M. Pilar-Lobera^{1,2}, M. Bernechea^{1,2}

15:20 – 15:40

¹Instituto de Nanociencia y Materiales de Aragón (INMA), CSIC-Universidad de Zaragoza. Department of Chemical and Environmental Engineering. Zaragoza, Spain.

²Centro de Investigación Biomédica en Red de Bioingeniería, Biomateriales y Nanomedicina, Instituto de Salud Carlos III. Zaragoza, Spain.



TUESDAY July 7th

SHORT PRESENTATIONS

Understanding solvent-structure-photophysics relationships in organosilica-based carbon dots

15:40 – 16:00

J. I. Castro¹, M. Nieddu¹, J. García-Martínez¹, C. Martín², E. Serrano¹

¹*Molecular Nanotechnology Lab, Inorganic Chemistry Department, University of Alicante. Alicante, Spain.*

²*Physical Chemistry Department, University of Castilla-La Mancha. Albacete, Spain.*

The versatility of perovskite-type mixed oxides: from thermal catalysis to photocatalysis

16:00 – 16:20

Á. Díaz-Verde^{1,2}, M. J. Illán-Gómez¹

¹*Carbon Materials and Environment Research group, Inorganic Chemistry Department and Materials Institute of the University of Alicante. Alicante, Spain.*

²*Current address: Molecular Nanotechnology Laboratory, Inorganic Chemistry Department, University of Alicante. Alicante, Spain.*

From molecular clusters to carbon dots: how L-arginine controls multistage tunable emission

16:20 – 16:40

D. Fernández-Ortiz¹, M. Rosell², F. de Jong³, J. Hofkens³, J. García-Martínez¹, N. Linares¹, C. Martín⁴

¹*Molecular Nanotechnology Laboratory, Inorganic Chemistry Department, University of Alicante. Alicante, Spain.*

²*Facultad de Farmacia. Universidad de Castilla La Mancha. Albacete, Spain.*

³*Chem&Tech - Molecular Imaging and Photonics, KU Leuven. Leuven, Belgium.*

⁴*Facultad de Ciencias Ambientales y Bioquímica, Universidad de Castilla La Mancha. Toledo, Spain.*



TUESDAY July 7th

SHORT PRESENTATIONS

Direct air capture of CO₂ and integrated methanation using Ni, Ca and CeO₂ mixed oxide nanoparticles

16:40 – 17:00

S. García-Pardo Hernández, K. Gómez-Villegas, J. C. Martínez-Fuentes, I. Martínez-López, A. Davó-Quiñonero, D. Lozano-Castelló, A. Bueno-López
Inorganic Chemistry Department, University of Alicante. Alicante, Spain.

Effect of copper sintering temperature on inverse CeO₂/CuO_x/Cu catalysts for CO-PROX

17:10 – 17:30

K. Gómez-Villegas, J. C. Martínez-Fuentes, I. Martínez-López, A. Davó-Quiñonero, D. Lozano-Castelló, A. Bueno-López
Inorganic Chemistry Department, University of Alicante. Alicante, Spain.

Understanding cluster-triggered emission in unconventional luminescent polymers

17:30 – 17:50

I. Núñez-Zafra¹, F. de la Cruz², A. Lara², S. Nonell³, R. Bresolí-Obach³, A. Douhal¹, C. Martín¹

¹*Departamento de Química Física, Facultad de Ciencias Ambientales y Bioquímica, INAMOL, Universidad de Castilla La Mancha. Toledo, Spain.*

²*Departamento de Química Inorgánica, Orgánica y Bioquímica - Centro de Innovación en Química Avanzada (ORFEO-CINQA), Facultad de Ciencias y Tecnologías Químicas, Universidad de Castilla La Mancha. Ciudad Real, Spain.*

³*AppLightChem, Institut Quimic de Sarria, Universitat Ramon Llull. Barcelona, Spain.*



TUESDAY July 7th

SHORT PRESENTATIONS

Hybrid Zr-MOF/carbon adsorbents for water purification: linking design and performance

S. J. Segovia-Sandoval¹, D. I. Mendoza-Castillo², A. Bonilla-Petriciolet², J. Silvestre-Albero¹

17:50 – 18:10

¹Laboratorio de Materiales Avanzados, Departamento de Química Inorgánica - Instituto Universitario de Materiales, Universidad de Alicante. Alicante, Spain.

²Tecnológico Nacional de México, Instituto Tecnológico de Aguascalientes. Aguascalientes, México.

Selective adsorption behavior in ZIF-90 vs ZIF-8: modelling and experimental evidence

O. I. Tovar-Arredondo¹, C. Carrillo-Carrión², O. Yazaydin³, J. Silvestre-Albero¹

18:10 – 18:30

¹Department of Inorganic Chemistry - Materials University Institute of Alicante. Alicante, Spain.

²Institute for Chemical Research (IIQ), CSIC - University of Seville. Seville, Spain.

³University College London. London, UK.



WEDNESDAY July 8th

INVITED TALKS

Surface-engineered nanocarriers for targeted photodynamic inactivation of gram-negative bacteria

9:30 – 10:20

Virginia Martínez

Physical Chemistry Department, University of País Vasco. Leioa, Spain.

Hydrogen-bonded organic frameworks, a versatile fluorescence platform for photonics applications

10:20 – 11:10

Boiko Cohen

Physical Chemistry Department, University of Castilla-La Mancha. Toledo, Spain.

Coffee Break

11:10 – 11:50

Multifunctional pyrochlores based on $\text{RE}_2\text{Zr}_2\text{O}_7$ for environmental applications

11:50 – 12:40

Héctor Beltrán

Inorganic and Organic Chemistry Department, University Jaume I. Castellón de la Plana, Spain.



WEDNESDAY July 8th

CLOSING SESSION

12:40 – 13:30

Closing Ceremony - Best Short Presentation Award



PHOTO-CD

BRIGHT



International Conference Hybrid Materials for Environmental Applications HyMEA 2026

6-8 July 2026

Villa Universitaria

Alicante



MINISTERIO
DE CIENCIA, INNOVACIÓN
Y UNIVERSIDADES

