

SCIENTIFIC PROGRAM



ALICANTE, SPAIN

6-9 September, 2026

WELCOME

The Specialized Adsorption Group of the Spanish Chemistry and Physics Royal Societies (RSEQ and RSEF), at its General Assembly held in Porto (Portugal) in 2024, entrusted us with the organization of the XLIV Iberian Meeting on Adsorption (44RIA).

Therefore, it is our pleasure to welcome the scientific community interested in Adsorption and related topics, and we encourage them to participate in this Meeting, which will be held in Alicante from September 6 to 9, 2026. The Meeting will take place in the Assembly Hall of Lecture Hall II on the campus of the University of Alicante (UA) and will feature the participation of speakers from both Spain and Portugal, as well as a strong representation of colleagues from the Ibero-American community and other nationalities.

This multidisciplinary forum will address all aspects related to adsorption, from fundamental principles to final applications, with special emphasis on its technological, energy, and environmental implications.

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- Susana Valencia (ITQ CSIC, Valencia)

General Information

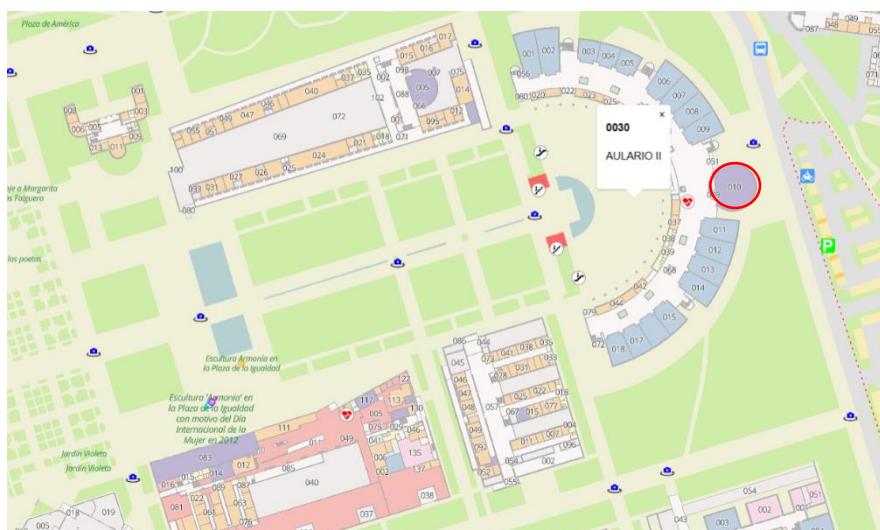
Venue

Conference, Opening Ceremony & Welcome Cocktail:

Campus of the University of Alicante

Ctra. de San Vicente del Raspeig, s/n, 03690 San Vicente del Raspeig, Alicante.

Building: Aulario 2. Auditorium.



Conference Dinner:

Real Club de Regatas de Alicante

Muelle Pte., 3, 03001 Alicante

Website:

<https://44ria.csidiomas.ua.es/>

Contact: 44ria@csidiomas.ua.es

Scientific Program Overview

	Sunday, 6	Monday, 7	Tuesday, 8		Wednesday, 9
09:00-10:00		Plenary Lecture-PL1	Plenary Lecture-PL2		Plenary Lecture-PL3
10:00-11:00		Oral Communications 1	Oral Communications 4		Oral Communications 7
11:00-11:30		Coffee Break	Coffee Break		Coffee Break
11:30-12:00		Keynote Lecture KN2	Keynote Lecture KN4		Oral Communications 8
12:00-13:00		Oral Communications 2	Oral Communications 5		
13:00-13:30					
13:30-14:00		Lunch	Lunch		
14:00-15:00					
15:00-15:30		Keynote Lecture KN3	Keynote (Best Thesis Price 2026)		
15:30-16:45		Registration	Oral Communications 3	Oral Communications 6	
16:45-18:00	Coffee Break & Poster Session 1		Coffee Break &		
			Poster Session 2	General Assembly	
18:00-18:15	Opening Ceremony				
18:15-19:00	Keynote Lecture KN1				
19:00-19:45	Tribute Prof. Guillermo Calleja				
19:45-22:00	Welcome cocktail		Conference Dinner		

Scientific Program

Sunday, 6th September

16:00-18:00	Registration
18:00-18:15	Opening Ceremony
18:15-19:00	Keynote Lecture KN1 - Luís Mafra University of Aveiro, Portugal “Watching CO ₂ Inside Pores: Solid-State NMR as a Quantitative Window into Confined-Gas Adsorption” <i>Chairman: Joaquín Silvestre Albero</i>
19:00-19:45	Tribute Prof. Guillermo Calleja <i>Chairman: Enrique Rodríguez Castellón</i>
19:45-22:00	Welcome cocktail

Monday, 7th September

09:00-10:00	Plenary Lecture PL1 - Jorge A. Rodríguez Navarro University of Granada, Spain “REACTIVE CRYSTAL SURFACES OF METAL-ORGANIC ASSEMBLIES” <i>Chairman: Olga Guerrero Pérez</i>
10:00-11:00	Oral Communications 1 <i>Chairman: João Pires</i>
10:00-10:15	Activated Carbons derived from Waste Biomass for CO ₂ Capture and Biogas Upgrading Julio E. Sosa , Brayan D. Batista, Henry H. Ortiz, Edwin G. Fuentes, Lluc Aresté-Saló, Isaac J. Garcia, Moisès Graells, José P.B Mota, Rui P.P.L. Ribeiro
10:15-10:30	GRAPHITIC CARBON NITRIDE FOR Hg(II) ADSORPTION FROM AQUEOUS SYSTEMS Amaya Arencibia , Beatriz Villajos, Jorge Plaza, Carlos Márquez, María José López-Muñoz
10:30-10:45	Tunable lignin derived carbon aerogels modified with ZSM-5 for hydrogen adsorption J. Álvarez-Valcarce , A. Tabernero, S. J. Segovia-Sandoval, V. Sebastian, J. Silvestre-Albero, J. Santamaría, E. M. Martín del Valle
10:45-11:00	Textural Characterisation of Porous Carbons from Pig Hair biowastes Using N ₂ , O ₂ , and CO ₂ Adsorption Kiara Montiel-Centeno , Jose Villajos, José María Sánchez, Ignacio Campello, Cristina Gutiérrez
11:00-11:30	Coffee Break
11:30-12:00	Keynote Lecture KN2 - Alessandro Erto University of Naples Federico II, Italy “Biogas upgrading in a multi-column VSA system using pelletized MOF” <i>Chairman: Celio Cavalcante</i>

12:00-13:30	Oral Communications 2 <i>Chairman: Amaya Arencibia Villagrà</i>
12:00-12:15	DESIGN OF A PRESSURE-TEMPERATURE SWING ADSORPTION PROCESS FOR METHANE UPGRADE Mariana C. N. Bessa , Idelfonso B. R. Nogueira, Alexandre F. P. Ferreira, Alírio E. Rodrigues, Ana Mafalda Ribeiro
12:15-12:30	LIQUID-PHASE ADSORPTION OF XYLENES USING A BARIUM-POTASSIUM EXCHANGED FAUJASITE ZEOLITE Bruno Castro , Rui Faria, Jonathan Gonçalves, Alírio Rodrigues, Alexandre Ferreira
12:30-12:45	CAPTURA DIRECTA DE CO ₂ : EL PODER DE LAS ZEOLITAS Miguel Palomino , M. Teresa Navarro, Fernando Rey, Susana Valencia, Tamara Guerrero-Esteban, Micaela Taborga
12:45-13:00	Waste-to-sustainable catalyst strategy: industrial waste as a precursor for highly active H ₂ S removal materials Meriem Abid , Manuel Martínez-Escandell, Rosa Maria Arán-Ais, Elena Albert-Navarro, Francisca Arán-Ais, Joaquín Silvestre-Albero
13:00-13:15	UPCYCLING PINE BARK FOR BOSTED TEXTILE WASTEWATER TREATMENT Ricardo M. Ferreira , Olivia S.G.P. Soares, Cidália M.S. Botelho
13:15-13:30	ADSORCIÓN DE CO ₂ POR CAPTURA DIRECTA DE AIRE Y METANACIÓN INTEGRADA CON NANOPARTÍCULAS DE ÓXIDOS MIXTOS DE Ni, Ca y Ce Arantxa Davó Quiñonero , Santiago García-Pardo Hernández, Katia Gómez Villegas, José C. Martínez-Fuentes, Iván Martínez López, Dolores Lozano Castelló, Agustín Bueno López
13:30-15:00	Lunch
15:00-15:30	Keynote Lecture KN3 - Anibal J. Ramírez Cuesta Oak Ridge National Laboratory, EEUU "The VISION Spectrometer at ORNL: A Unique High-Throughput INS Platform for Materials Research" <i>Chairman: Enrique Rodríguez Castellón</i>
15:30-16:45	Oral Communications 3 <i>Chairman: Moisés Luzia Pinto</i>
15:30-15:45	Synthesis of MOF@aluminum saline slag-based composites: A valorization strategy for CO ₂ capture at moderate temperatures Helir Joseph Muñoz , Sophia Korili, Antonio Gil
15:45-16:00	Selective adsorption behavior in ZIF-90 vs ZIF-8: Modelling and experimental evidence Oscar Iván Tovar-Arredondo , Carolina Carrillo-Carrión, Ozgur Yazaydin, Joaquín Silvestre-Albero
16:00-16:15	Fabrication of UiO-66-NH ₂ /Fe-Impregnated Activated Carbon Composites for Water Treatment: Synthesis, Characterization and Adsorption Performance Sonia Judith Segovia Sandoval , Didilia Ileana Mendoza Castillo, Adrián Bonilla Petriciolet, Joaquín Silvestre-Albero
16:15-16:30	Modulation of adsorbate-framework interactions in ZIF-8 for selective CO ₂ /CH ₄ separation M. Karla López González , Javier Narciso

16:30-16:45	Analysis of ZIF-8 for purification of hydrogen-oxygen mixtures: A molecular simulation study I. Sánchez Hernández , I. Elwakil, J. J. Gutiérrez-Sevillano
16:45-18:00	Coffee Break & Poster Session 1

Tuesday, 8th September

09:00-10:00	Plenary Lecture PL2 - Sara Bals University of Antwerp, Belgium “New developments for 3D characterization of nanostructured materials by transmission electron microscopy” <i>Chairman: Sofía Calero</i>
10:00-11:00	Oral Communications 4 <i>Chairman: Alexandre Ferreira</i>
10:00-10:15	ADVANCED BIOGAS UPGRADING VIA HYBRID ADSORBENTS IN STRUCTURED DUAL-LAYER ESA PROCESSES Luís Madeira , Rafael Dias, Ana Pereira, Ana Mafalda Ribeiro, Lasse Wegner, Kalle Mertin, Arne Stölting, Norbert Stock, Alexandre Ferreira
10:15-10:30	PHOSPHORUS AND POTASSIUM DESORPTION FROM GRASS CLIPPING BIOCHAR AS INFLUENCED BY PYROLYSIS CONDITIONS IN A LAB SCALE DRIP IRRIGATION SYSTEM Yesid Murillo-Acevedo , Carlos A. Grande
10:30-10:45	Sustainable CO ₂ Capture Using 3D-Printed Carbon Composites with Fly Ash Integration Manon Odelot, Inês Correia, Pedro Ouro, Daniel Pereira, Ildefonso Marín-Montesinos, Rui M. Novais, Luís Mafra, Nuno P. F. Gonçalves, Mirtha A. O. Lourenço
10:45-11:00	Bridging Structure and Function: Advanced Gas Sorption Characterization of Porous Materials for Storage and Separation Nathalia Prieto , Riaz Ahmad, Christie Baldizar, Katie Struckhoff; Anton Paar QuantaTec
11:00-11:30	Coffee Break
11:30-12:00	Keynote Lecture KN4 - Eduardo Andrés-García University of Zaragoza, Spain “BIOMASS CIRCULAR ENGINEERING: Pyrolysis, Gasification & Adsorption” <i>Chairman: Manuel Pérez Mendoza</i>
12:00-13:30	Oral Communications 5 <i>Chairman: Moises Bastos Neto</i>
12:00-12:15	Advanced MOF-Based Delivery Systems for Sustained Nitric Oxide Therapy Rosana V. Pinto , Chen-Chen Cao, Sujing Wang, Guillaume Maurin, Fernando Antunes, João Pires, Antoine Tissot, Christian Serre, Moisés L. Pinto
12:15-12:30	Amino-modified MOFs for the Removal of Nitrates in Contaminated Drinking Water Ana Martin-Calvo , Tjeu der Kinderen, Sofia Calero

12:30-12:45	Defect location dictates water adsorption enthalpy in CAU-10-H MOFs Diego García-López , Giulia van Rossem, Norbert Stock, Alexandre F.P. Ferreira, Sofia Calero
12:45-13:00	MIL-120(Al) towards sustainable biogas upgrading [1] Marta Bordonhos , Rosana Vieira Pinto, Tânia Frade, Bingbing Chen, Farid Nouar, Georges Mouchaham, José R.B. Gomes, Christian Serre, Moisés Luzia Pinto
13:00-13:15	FROM POWDER TO STRUCTURED ADSORBENT: 3D-PRINTED ZIF-8 MONOLITHS FOR C ₂ H ₆ /C ₂ H ₄ SEPARATION Gerson Rincon, Julio E. Sosa, Henry Ortega-Ortiz , Jeniffer Carrillo, Debora A. Nabarlatz, Laura M. Esteves, Luisa Neves, José P.B. Mota, Rui P.P.L. Ribeiro
13:15-13:30	TAMOF-1 for CO ₂ capture from flue gas Susanne Gooijer , Santiago Capélo, Esteban Acuna-Yeomans, Stefano Giancola, David Dubbeldam, José-Rámon Galán Mascaros, José-Manuel Vicent Luna, Sofia Calero
13:30-15:00	Lunch
15:00-15:30	Keynote Lecture KN5 – Best Thesis Price 2026 <i>Chairman: Eduardo M. Cuerda</i>
15:30-16:45	Oral Communications 6 <i>Chairman: Susana Valencia Valencia</i>
15:30-15:45	Molecular Simulation for Hydrogen Production: Zeolite Confinement Shifts Equilibrium in Steam-Methane Reforming J.J. Gutiérrez-Sevillano , B. Zhakisheva, P.J. Merkling, S. Calero
15:45-16:00	Geopolymer–Zeolite 13X Composite Adsorbents: From Powder to Structured Architectures for CO ₂ Capture Mariana Schneider, Mar Calzado-Delgado, Enrique Rodríguez-Castellón, M. Olga Guerrero-Pérez , Dachamir Hotza, Agenor DeNoni Junior, Regina Fátima Moreira
16:00-16:15	Breaking the Trend: Unusual Adsorption and Diffusion in Cage-type Zeolites Jennifer K.X. Pham Van , Sven Robijns, Joeri F. M. Denayer, Michiel Dusselier, Tom R. C. Van Assche
16:15-16:30	O ₂ /O ₃ Gas Separation Using MOR-40 Adsorbent Inês Rodrigues , Vítor J.P. Vilar, Alexandre F.P. Ferreira
16:30-16:45	ENHANCED CO ₂ ADSORPTION IN SYNTHESIZED CUBE-SHAPED ZEOLITIC4A FRAMEWORK Nisrine Jabli , Zineb Ouzrour, Abderrahman Mellalou, Johan Jacquemin, Youssef Tamraoui, Fouad Ghamouss
16:45-18:00	Coffee Break & Poster Session 2
17:30-18:30	General Assembly
20:00	Conference Dinner

Wednesday, 9th September

09:00-10:00	Plenary Lecture PL3 - Clara Rodrigues Pereira University of Porto, Portugal “Energy Harvesting and Storage Technologies on Flexible Platforms: From Multifunctional Building Blocks to Integrated Devices” <i>Chairman: Carlos Grande</i>
10:00-11:00	Oral Communications 7 <i>Chairman: Eduardo Andrés García</i>
10:00-10:15	Insights of rare earth elements recovery from acid mine drainages by adsorption onto clays minerals in SW Spain Aníbal López-Marín , Rafael León Cortegano, Rosa Martín-Rodríguez, Ana C. Perdigón, Carlos Ruiz Cánovas
10:15-10:30	Engineering Organic-Inorganic Interfaces in Hybrid Nanomaterials for Visible-Light-Driven Environmental and Biomedical Applications Vesna Lazić , Valentina Nikšić, Katarina Isaković, Miljana Dukić, Dušan Sredojević
10:30-10:45	Stable Immobilization of Horseradish Peroxidase on Dopamine-Functionalized Fe ₃ O ₄ Nanoparticles for Tetracycline Degradation Katarina Isaković , Miljana Dukić, Dušan Sredojević, Milena Marinović-Cincović, Zorica Knežević-Jugović, Joaquin Silvestre-Albero, Vesna Lazić
10:45-11:00	Laminar Differential Pressure (DP) Flow Meter: Operating Principle and High-Accuracy Multi-Gas Calibration Silvana Carlos , Ezequiel Damian Cardozo; Rosetta Technology Solutions S.L.
11:00-11:30	Coffee Break
11:30-13:00	Oral Communications 8 <i>Chairman: Luís Mafra</i>
11:30-11:45	Towards using Polanyi’s adsorption potential theory for predicting gas adsorption in nanomaterials Flavian Stavarache , Azahara Luna-Triguero, Sofia Calero, Hideki Tanaka, Jose Manuel Vicent-Luna
11:45-12:00	SODIUM POLY(HEPTAZINE IMIDE)-BASED ADSORBENTS FOR CO ₂ CAPTURE Pedro Ouro , Daniel Pereira, Mariana Sardo, Igor Krivtsov, Ildefonso Marin-Montesinos, Luís Mafra, Marina Ilkaeva
12:00-12:15	Silica-Based Porous Adsorbents for Efficient 17-Ethinylestradiol Removal: Role of Organic Functionalization and Water Matrices Tiago Morais , Diogo Pereira, Geraldine Sequera, Ana C. Moreira, Marina Ilkaeva, Luís Mafra, Mariana Sardo, Vânia Calisto, Mirtha A. O. Lourenço
12:15-12:30	New methods for understanding and handling sorbed water Yassin H. Andaloussi ; Surface Measurement Systems Ltd
12:30-13:00	Closing Ceremony

Poster Sessions

All posters must be on display during the two scheduled sessions (on both Monday and Tuesday). They must also be taken down on Tuesday at the end of the session.

1	Interacciones gas-sólido mejoradas en Ni-URJC-3 para la adsorción de H ₂ y CO ₂ Gisela Orcajo , Elena García-Rojas, Jesús Tapiador, Carmen Martos, Pedro Leo
2	Textural and Surface Chemistry Effects on CO ₂ /CH ₄ Separation: A Comparative Analysis of Five Commercial Clays Giselle I. Autié Castro, Enrique Rodríguez-Castellón , Juan A. Cecilia, D. Ballesteros-Plata, A. Infantes-Molina, Tania Farías
3	Adsorptive Desulfurization of Diesel Fuel over Palygorskite Clay Anne B. F. Câmara, Rafael V. Sales, João V. G. Souza, Aisha V. S. Pereira, Luiz C. Bertolino, Leila Campos, Daniel Plata-Ballesteros, Enrique Rodríguez-Castellón, Luciene S. de Carvalho
4	ADSORPTION BEHAVIOR OF VOLATILE ORGANIC COMPOUNDS ON MOF@HPCM COMPOSITE ADSORBENTS UNDER CONFINED CONDITIONS Milica Želinská, Tomáš Zelenka, Miroslav Almáši
5	Evaluation of MIP-177 MOF for the Adsorption and Sustained Release of NO and H ₂ S João Pires , Miriam Marques, Nélida Almeida, Christian Serre, Isabel Ribeiro, Moisés Pinto, Rosana Pinto
6	PEELING AWAY POLLUTION: BIOSORBENTS FROM PINEAPPLE WASTE FOR INDUSTRIAL WATER TREATMENT Carolina Agostinho, Ana Barroso, Inês Moreira, Cidália Botelho, Ricardo Ferreira
7	Metal Organic-Framework production process with ligand recovery: process optimization, life cycle, and production cost assessments Beatriz Cassuriaga, Andreia Santos, Tarik Aaboub, Vanessa Pimenta, Farid Nouar, Christian Serre, Ana Carvalho, Moisés L. Pinto
8	Tailoring CO ₂ adsorption in MOF derived carbons through precursor chemical modification M. Karla López González , Javier Narciso
9	Biogas upgrading using sustainable activated carbons obtained from sewage sludge Daniel Moya , Carol Khayat, Daniel Gómez, Rubén Calero, V. Ismael Águeda, José Antonio Delgado
10	Uranium and critical elements remotion from phosphogypsum leachates – an insight of adsorption mechanism onto clay minerals Aníbal López-Marín , Rafael León Cortegano, Rosa Martín-Rodríguez, Ana C. Perdígón, Carlos Ruiz Cánovas
11	CO ₂ recovery by using a three-bed PSA cycle with BPL activated carbon Daniel Gómez , Carol Khayat , Vicente Ismael Agueda, José Antonio Delgado
12	Biogas purification via PSA using carbon molecular sieve CMS-3K simulation study Carol Khayat , Daniel Gomez, Vicente Ismael Agueda, Jose Antonio Delgado
13	MERCURY ADSORPTION BY SULFUR MODIFIED COKE DEPOSITS FROM BIO-OIL CATALYTIC STEAM REFORMING

	Óscar R. Montoro, Pedro Megía, María José López-Muñoz, Alicia Carrero, Amaya Arencibia
14	Efecto del método de aglomeración de CALF-20 en la captura de CO ₂ de gases de combustión mediante PSA Luis Enriquez , Alvaro Trujillo, Ernesto Simón, María Martín, Ismael Águeda, José Antonio Delgado
15	Innovative electrospun geopolymer/zeolite/PVA composite membranes for CO ₂ capture and gas separation. Mariana Schneider, Mar Calzado-Delgado, Enrique Rodríguez-Castellón , M. Olga Guerrero-Pérez, Dachamir Hotza, Agenor DeNoni Junior, A. Zrelli, Regina Fátima Moreira
16	COMPETITIVE ADSORPTION OF H ₂ O, CO ₂ AND CH ₄ ON CHA ZEOLITE: INSIGHTS FROM MULTICOMPONENT BREAKTHROUGH EXPERIMENTS Beatriz Oliveira Nascimento, Yasmin Dafne Moreira Duarte, Rafaelle Gomes Santiago, Débora Aline Soares Maia, Antônio Eurico Belo Torres, Dárley Carrijo de Melo, Diana Cristina Silva de Azevedo, Moisés Bastos-Neto
17	INTEGRATED BIOHYDROGEN UPGRADING AND CO ₂ CAPTURE USING ALPO-22 IN A VACUUM SWING ADSORPTION PROCESS Enrique Vilarrasa-García, Antônio Eurico Belo Torres, Bianca Ferreira dos Santos, Débora Aline Soares Maia, José Carlos Alexandre de Oliveira, Sebastião Mardônio Pereira de Lucena, Diana Cristina Silva de Azevedo, Moisés Bastos-Neto
18	HIGH-TEMPERATURE ADSORPTION OF CO ₂ AND CH ₄ ON COMMERCIAL 4A ZEOLITE: EQUILIBRIUM AND KINETIC INSIGHTS FOR TSA DESIGN Vitória Natasha Silva Oliveira, Antônio Eurico Belo Torres, Rafaelle Gomes Santiago , Moises Bastos-Neto
19	Scalable and Robust Metal Organic Frameworks for Cultural Heritage Preservation Miguel Vitoriano Teixeira , Tarik Aaboub, Abeer Mohtar, Farid Nouar, Vanessa Pimenta, Georges Mouchaham, Christian Serre, Moisés Pinto
20	Hydrogen recovery from off-gases with nitrogen-rich impurity by pressure swing adsorption using NaX and CaX zeolites Álvaro Trujillo , Ernesto Simón, Rubén Calero, V. Ismael Águeda, José Antonio Delgado
21	Assessing biochar pore development by O ₂ adsorption at 77K Ignacio Campello Gómez , José María Sánchez Rodas, Kiara Montiel Centeno, Cristina Gutiérrez Muñoz
22	Tailored Al-PILCs for CO ₂ Capture: Optimisation and Performance in Pressure Swing Adsorption for Cement Emissions Tânia Frade , Marta Bordonhos, Abeer Al Mohtar, Moisés Luzia Pinto
23	ESTUDIO DE ADSORCIÓN DE HIDROCARBUROS LIGEROS EN SILICALITA-2 MEDIANTE DIFRACCIÓN DE RAYOS X IN-SITU Alberto Barros, Silvia Martí, Miguel Palomino, José L. Jordá, Fernando Rey, Susana Valencia
24	NANOCOMPOSITE MOF@CNT MODIFICADO CON PLASMAS FRÍOS PARA SU APLICACIÓN EN ELECTROCATÁLISIS Nadia Abarchán-Mesa, Víctor K. Abdelkader-Fernández, Manuel Pérez-Mendoza
25	Polyamine-Based Enhancer for Improved Scale Inhibitor Retention in Sandstone Rafael T. Landim, Artur V. Nascimento, Pedro B. Cavalcante, Célio L. Cavalcante Jr., F. Murilo T. Luna

26	Reduction of ammonia emissions and nutrient recovery through adsorption in livestock facilities Jana Sanz, Alejandro Lete, Noemí Gil-Lalaguna, Ángela Millera, Jesús Ceamanos , Isabel Fonts, Gloria Gea
27	Optical Activation versus Function in Phenolic Interfacial Charge-Transfer Complexes of Tetragonal ZrO ₂ : A Combined Experimental and DFT Study Miljana Dukić , Katarina Isaković, Valentina Nikšić, Dušan Sredojević, Hristina Šalipur, Davor Lončarević, Miriama Malček-Šimunkova, Joaquín Silvestre-Albero, Anđela Rajčić, Jovana Periša, Vesna Lazić
28	Surgical Mask-Derived Activated Carbons for Heavy-Metal Adsorption Paula Ramos Cayero, Eduardo M. Cuerda Correa, Carmen Fernández-González, María F. Alexandre Franco
29	Optimizing Methylene Blue Biosorption with Alginate Beads Manuel Merino Gallardo, Carmen Fernández-González, Eduardo M. Cuerda Correa, María F. Alexandre Franco
30	Textural Control and ANN Modelling of CaO-Based Sorbents for CO ₂ Capture Alberto J. Nieto-Sánchez, María F. Alexandre-Franco, Eduardo M. Cuerda-Correa
31	Beyond Empirical Kinetics: Intraparticle Diffusion Modelling of Paraben Adsorption Juan Manuel Garrido Zoido, María F. Alexandre Franco, Eduardo M. Cuerda-Correa
32	Agricultural Waste-Derived Carbon Materials for Pb (II) Removal from Water: Performance of Corncob Biochar and Magnetic Carbon Quantum Dot Hybrid Amy Pamela Montiel Carrillo , Araceli Jacobo Azuara, Guillermo Manuel González Guerra
33	ADSORPTIVE REMOVAL OF TETRACYCLINE HYDROCHLORIDE FROM AQUEOUS MEDIA USING BENTONITE AND HALLOYSITE CLAYS: EQUILIBRIUM, KINETIC, AND REUSE STUDIES Aisha Pereira , João Gomes, Adriano Freitas, Leila Campos, Enríque Rodríguez-Castellón, Daniel Plata-Ballesteros, Luciene Carvalho

Plenary Lectures & Keynotes

PL1. Monday, 7th September (9:00-10:00)

Jorge A. Rodríguez Navarro | University of Granada, Spain

“REACTIVE CRYSTAL SURFACES OF METAL-ORGANIC ASSEMBLIES”

PL2. Tuesday, 8th September (9:00-10:00)

Sara Bals | University of Antwerp, Belgium

“New developments for 3D characterization of nanostructured materials by transmission electron microscopy”

PL3. Wednesday, 9th September (9:00-10:00)

Clara Rodrigues Pereira | University of Porto, Portugal

“Energy Harvesting and Storage Technologies on Flexible Platforms:
From Multifunctional Building Blocks to Integrated Devices”

KN1. Sunday, 6th September (18:15-19:00)

Luís Mafra | University of Aveiro, Portugal

“Watching CO₂ Inside Pores: Solid-State NMR as a Quantitative Window
into Confined-Gas Adsorption”

KN2. Monday, 7th September (11:30-12:00)

Alessandro Erto | University of Naples Federico II, Italy

“Biogas upgrading in a multi-column VSA system using pelletized MOF”

KN3. Monday, 7th September (15:00-15:30)

Anibal J. Ramirez Cuesta | Oak Ridge National Laboratory, EEUU

“The VISION Spectrometer at ORNL: A Unique High-Throughput INS Platform for Materials Research”

KN4. Tuesday, 8th September (11:30-12:00)

Eduardo Andrés-García | University of Zaragoza, Spain

“BIOMASS CIRCULAR ENGINEERING: Pyrolysis, Gasification & Adsorption”

KN5. Tuesday, 8th September (15:00-15:30)

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