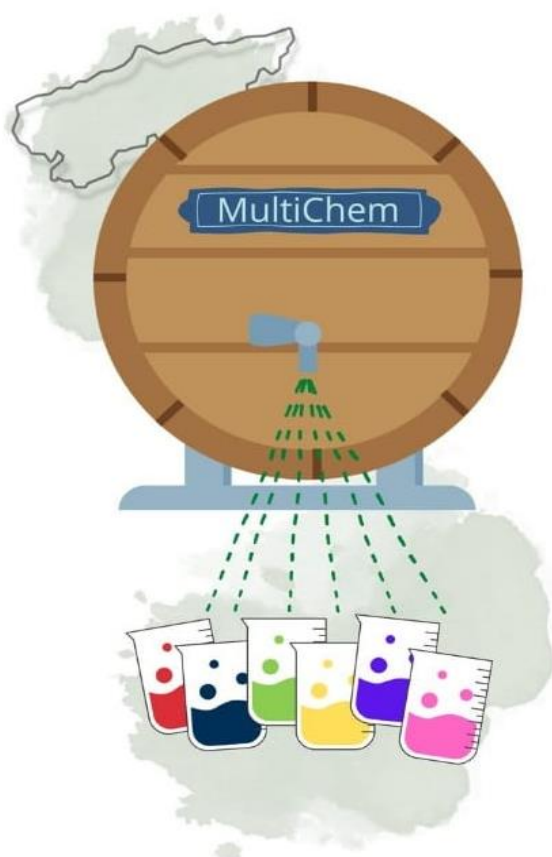


II PhD Multidisciplinary Chemical Congress



SCHEDULE

March 14-15th, 2024
Escuela Politécnica de Ingeniería de Gijón (EPI)
University of Oviedo

Thursday, March 14th

| | |
|---------------|---|
| 9:00 – 9:30 | Opening Ceremony |
| 9:30 – 11:20 | Session 1 Chairperson: Mario Díaz Fernández (<i>University of Oviedo</i>) |
| 9:30 – 10:30 | Plenary Chemistry at the Crossroads: New Social Challenges through Science <i>Rosa Menéndez López (INCAR-CSIC)</i> |
| 10:30 – 10:50 | Keynote K-1 Lewis- and Brønsted-based Acid Deep Eutectic Solvents (ADESs). Efficient promoters of the alkyne hydration, Friedel-Crafts arylation and cascade reactions <i>Marina Ramos Martín (University of Oviedo)</i> |
| 10:50 – 11:20 | Flash Poster Session 1 |
| | F-1: Development of a novel chemoenzymatic synthesis of tamsulosin <i>Enol de Prado Fernández (University of Salamanca)</i> |
| | F-2: ElectroELISA Probe: A new tool for on-site electrochemical ELISA readout of Epstein-Barr Virus serological tests <i>Ana Fernández Quesada (University of Oviedo)</i> |
| | F-3: Photo-biocatalytic deracemization of β -chlorohydrins <i>Sara Filgueira Fernández (University of Oviedo)</i> |
| | F-4: In situ bio-H ₂ production in biorefineries from syngas streams by steam reforming with integrated CO ₂ capture <i>Alejandra Vega Rodríguez (INCAR-CSIC)</i> |
| | F-5: DMPK optimization of a promising anti-alzheimer multitarget lead compound <i>Noemí Martínez-Conde (University of Barcelona)</i> |
| | F-6: Domain-averaged Local Spin Densities <i>Diogo José Lopes Rodrigues (University of Oviedo)</i> |
| | F-7: Photochemical Cross-Coupling of N-tosylhydrazones and boronic acids: a novel strategy towards geminal carboborylation reactions <i>Álvaro Valdés Maqueda (University of Oviedo)</i> |
| | F-8: Sustainable electrocatalysts for Oxygen Reduction in fuel cells <i>Elisa Martínez Díaz (INCAR-CSIC)</i> |

F-9: Biogas Purification using a Pinecone Leaf-based Activated Carbon: Assessment of the Adsorption Capacity

Diego Cimadevilla Cabeza (INCAR-CSIC)

F-10: Photocatalytic oxidative cleavage of styrenes followed by carbonyl bioreduction towards stereoselective alcohol synthesis

Laura Rodríguez Fernández (University of Oviedo)

11:20 – 11:30 ArcelorMittal

11:30 – 12:00 Coffee break – Poster Session 1

12:00 – 13:50 Session 2

Chairperson: Inmaculada Ortiz (*University of Oviedo*)

12:00 – 12:20 Keynote K-2

Studying the bioaccumulation of metal nanoparticles in edible wild mushrooms

Andrés Suarez Priede (University of Oviedo)

12:20 – 12:35 Oral O-1

MgSO₄ as an effective, low temperature sulfur dopant for carbon materials enabling fast sodium storage

Sara Payá González (INCAR-CSIC)

12:35 – 12:50 Oral O-2

Chemoenzymatic concurrent cascade involving gold(I)-catalyzed Meyer-Schuster rearrangement of racemic propargylic alcohols and stereoselective bioreduction using ene-reductases

Lorena Escot Navarro (University of Oviedo)

12:50 – 13:05 Oral O-3

New electrochemical insights of nitrate reduction reaction on PtPd bulk alloy single-crystals

Pepe Jordá-Faus (IUE-University of Alicante)

13:05 – 13:20 Oral O-4

Stroke differential diagnosis on the go: fast and decentralized detection of novel biomarkers using electroanalytical devices

Pablo Rioboó Legaspi (University of Oviedo)

13:20 – 13:35 Oral O-5

Extracellular vesicles of adipose tissue modulate the growth of cancer cells

Belén García Soler (*University of Oviedo*)

| | |
|----------------------|---|
| 13:35 – 13:50 | Oral O-6 Continuous Gas-Phase Photocatalysis for CO ₂ reduction with g-C ₃ N ₄ : a sustainable approach <i>Saloa Vaquero Vílchez (Bilbao School of Engineering-UPV/EHU)</i> |
| 13:50 – 15:30 | Lunch |
| 15:30 – 17:05 | Session 3 Chairperson: Julen Munárriz Tabuenca (<i>University of Zaragoza</i>) |
| 15:30 – 15:50 | Keynote K-3 Beyond the Black Box: Interpretable Quantum Chemical Topology <i>Miguel Gallegos González (University of Oviedo)</i> |
| 15:50 – 16:05 | Oral O-7 Developing effective synthesis of a wide range of multimetallic aerogels by microwave-assisted sol-gel methodology <i>Judith González-Lavín (INCAR-CSIC)</i> |
| 16:05 – 16:20 | Oral O-8 Synthesis of graphene-anchored NHC-Iridium catalyst by two routes for Oxygen Evolution Reaction <i>María González Ingelmo (INCAR-CSIC)</i> |
| 16:20 – 16:35 | Oral O-9 Methyl groups behaviour as Lewis acids and bases <i>Noushin Keshtkar (University of Zaragoza)</i> |
| 16:35 – 17:05 | Flash Poster Session 2 |
| | F-11: Addition of nanoparticles to lightweight concrete for CO ₂ capture <i>Diego Panizo Martín (University of Oviedo)</i> |
| | F-12: Novel multitarget inhibitors with amyloid antiaggregating activity to treat Alzheimer's disease <i>Anna Sampietro Pifarre (University of Barcelona)</i> |
| | F-13: Unveiling electron distributions in the real space <i>Daniel Barrena Espés (University of Oviedo)</i> |
| | F-14: New Ru(III) NAMI-type complexes with anticancer activity <i>Manel Estruch Blasco (University of Sevilla)</i> |

F-15: Microwave synthesis of new co-polypyrrole-polyketone for anion exchange membranes

Francesco Lanero (University of Padova)

F-16: Novel *helico*BODIPYs as CPL-active small organic molecules

Pablo Izquierdo Cazorla (Complutense University of Madrid)

F-17: Use of life microorganisms, fibre and polyphenols as possible dietary targets for microbiota modulation at early life stages

Eva Gómez Pérez (University of Oviedo)

F-18: Metal-doped carbon aerogels as electrode materials for non-enzymatic glucose sensors

Mario Sánchez Suárez (INCAR-CSIC)

F-19: Determination of proteins in hypoxic Müller glia cells by single cell ICP-MS: the use of DNA intercalators for enhanced cell detection

Alicia Villa Vázquez (University of Oviedo)

F-20: 3-Nitro-2*H*-chromenes: useful synthons in photoredox Giese reaction

Patrícia Inês Carvalho Godinho (LAQV/REQUIMTE-University of Aveiro)

17:05 – 17:45 **Coffee break – Poster Session 2**

17:45 – 19:20 **Session 4**

Chairperson: Manuel Plaza Martínez (*University of Oviedo*)

17:45 – 18:05 **Keynote K-4**

Acid-free two-step fructose to FDCA conversion for sustainable plastic production

Ane Bueno Viso (Bilbao School of Engineering-UPV/EHU)

18:05 – 18:20 **Oral O-10**

Biodegradation of polyethylene microplastics by microorganisms

Bess Alicia Newrick (University of Oviedo)

18:20 – 18:35 **Oral O-11**

Multi-elemental mapping of metallic samples with various matrices using fs-LA-ICP-MS

Cristian Soto Gancedo (University of Oviedo)

18:35 – 18:50 **Oral O-12**

Thermodynamics of solids made simple: Quasiparticle Theory

Ernesto Blancas Jiménez (University of Oviedo)

18:50 – 19:05 **Oral O-13**

Design and development of magnetic NPs for biomedical applications

Raúl Gimeno Ferrero (University of Sevilla)

19:05 – 19:20 **Oral O-14**

Use of design of experiments for optimizing the performance of natural-based adhesives for seed coating in Agriculture

Sara Fuster Esteso (University of Alicante)

Friday, March 15th

| | |
|---------------|--|
| 9:00 – 10:35 | Session 5 Chairperson: Joaquín García Álvarez (<i>University of Oviedo</i>) |
| 9:00 – 9:20 | Keynote K-5 The quest for molecular diversity: leaving no stones unturned <i>Pau Nadal (University of Barcelona)</i> |
| 9:20 – 9:35 | Oral O-15 Controlling Pd and OH species in UiO-66 Metal-Organic Framework for Guerbet Reaction: optimizing Alcohol Chain Growth <i>Pedro Jesús Cantarero Gómez (Bilbao School of Engineering-UPV/EHU)</i> |
| 9:35 – 9:50 | Oral O-16 Detection of genomic DNA for marine species identification based on the use of gold nanoparticles and signal amplification <i>Patricia Alcázar (University of Oviedo)</i> |
| 9:50 – 10:05 | Oral O-17 NADH-mediated primordial amino acids synthesis <i>Noemí Nogal Rodríguez (Autonomous University of Madrid)</i> |
| 10:05 – 10:35 | Flash Poster Session 3 |
| | F-21: Hydrolysed sewage sludge as biosorbent for methylene blue removal <i>Luis Romero (University of Oviedo)</i> |
| | F-22: LA-ICP-MS for quantitative distribution of (Bio)markers in Breast Cancer <i>Sara Escudero Cernuda (University of Oviedo)</i> |
| | F-23: Modular synthesis of new BODIPY dyes with strong NIR emission properties <i>Álvar Serrano-Pindado (University of Oviedo)</i> |
| | F-24: Preparation of starch films added with lactobionic acid for antibacterial application <i>Saliha Oussaid (University of Oviedo)</i> |
| | F-25: Design and optimization of an immunoassay for GFAP determination as biomarker for differential diagnosis of stroke <i>Cristina Álvarez Álvarez (University of Oviedo)</i> |
| | F-26: Inhibition of influenza H1N1 virus fusion: a study on aniline- and phenol-based compounds <i>Celia Escriche (University of Barcelona)</i> |

F-27: Effect of operational conditions on the entrapment of microplastics (MPs) in secondary sewage sludge

Claudio Casella (University of Oviedo)

F-28: Characterization of human milk exosomes: pasteurization effects

Claudia Gómez Martínez (University of Oviedo)

F-29: Synthesis and reactivity of 2-(aminomethyl)BODIPYs. Significance in BODIPY functionalization chemistry

Sergio Serrano Buitrago (Complutense University of Madrid)

10:35 – 11:15 Coffee break – Poster Session 3

11:15 – 13:30 Session 6

Chairperson: Vicente Gotor (*University of Oviedo*)

11:15 – 11:30 Oral O-18

From Green Gold to Black Gold: highly porous carbons from pistacchio shells by a controlled physical activation process

Ana Fernández-Lera González (INCAR-CSIC)

11:30 – 11:45 Oral O-19

Innovative sensor design for monitoring and mitigating the impact of bisphenol a on human health and ecosystems

Sandra Rodríguez Varillas (University of Oviedo)

11:45 – 12:00 Oral O-20

Bio-based starch nanoparticles with controlled size as antimicrobial agents

Diana Morán Tuya (University of Oviedo)

12:00 – 12:15 Oral O-21

CO₂ hydrogenation on Ru encapsulated on silicalite: a multiscale study

Manuel Antonio Cánovas Montes (University of Barcelona)

12:15 – 12:30 Oral O-22

Remodelling tumor microenvironment with small molecules: synthesis of new podophyllotoxin dual target hybrids with cytotoxic and immunogenic activity

Pablo López Fernández (University of Salamanca)

12:30 – 13:30 Plenary

Ángela Santianes

Country Leader of DuPont in Spain and Portugal

13:30 – 14:00 Closing Ceremony

visita **gijón**

RSEQ ³³ **ASTURIAS**
Real Sociedad Española de Química SECCIÓN TERRITORIAL

EPI ^{INGENIERIA}
Universidad de Oviedo

 **CAJA RURAL**
DE ASTURIAS

Scharlab
THE LAB SOURCING GROUP

 **CORTEVA**TM
agriscience


ArcelorMittal

