



Thursday, May 7th

9:00 – 9:30	Opening Ceremony
9:30 – 11:20	Session 1 Chairperson: Enrique Aguilar Huergo
9:30 – 10:30	Plenary Hacking Carbon: Molecular Nanographenes at the Frontier of Atomic Design <i>Nazario Martín León (Complutense University of Madrid)</i>
10:30 – 10:50	Keynote K-1 Characterization of biogenic iron nanoparticles from fly larvae and their future as supplementation <i>Miguel Gómez Sánchez (University of Oviedo)</i>
10:50 – 11:20	Flash Poster Session 1
	FP-1: Complete pet depolymerization using ethylene glycol based deep eutectic solvents <i>Cosimo Ricci (University of Rome)</i>
	FP-2: Mapping the functional landscape of cisplatin resistance in osteosarcoma using a multi-omic mathematical framework <i>Julia Berdasco García (University of Oviedo)</i>
	FP-3: A Photochemical Multicomponent Strategy for the Assembly of C(sp ²)-S Substituted Imidazoles <i>Illán Tagarro Peña (University of Oviedo)</i>
	FP-4: Evaluation of the factors influencing the extraction of antioxidants from the microalga spirulina (<i>Arthrospira platensis</i>) using a full factorial design. <i>Victoria Blanco Carro (University of Oviedo)</i>
	FP-5: Synthesis of dimethyl ether hydrogen carrying molecule catalyzed by supported heteropoly acids <i>Muhammad Adnan (University of Oviedo)</i>
	FP-6: Investigation of the impact of energy supplements in the regulation of the Na/K pump of tumoral and control mammary epithelial cells <i>Teresa Rodríguez Pardo (University of Oviedo)</i>
	FP-7: Filtration as a valuable alternative to ultracentrifugation for extracellular vesicle isolation using cell culture lines <i>Pablo Gutiérrez García (University of Oviedo)</i>



FP-8: Designing Bio-Based Emulsions for Controlled Release of Natural Antimicrobials

Elisa Fernández Sánchez (*University of Oviedo*)

FP-9: A Sustainable Chemoenzymatic Route to Nitriles from Primary Alcohols under Aqueous Conditions

Enol de Prado Fernández (*University of Oviedo*)

11:20 – 12:00 Coffee Break – Poster Session 1

12:00 – 13:50 Session 2

Chairperson: M^a Isabel Menéndez Rodríguez

Keynote K-2

12:00 – 12:20 Beyond Fluoride: Quantum Chemical Topology Reveals the Extreme Electronegativity of the Teflate Group

Daniel Barrena Espés (University of Oviedo)

Oral O-1

12:20 – 12:35 The Final Chelator: a Potentially Conjugable Thiocarbohydrazone That Strongly Chelates Cu(II) in a Soluble Complex Tuning Metal Redox-Activity into Selective Cytotoxicity Against Colorectal Cancer

Lorenzo Verderi (University of Parma)

Oral O-2

12:35 – 12:50 Multiplexed profiling of protein biomarkers in serum-derived extracellular vesicles using metal nanocluster-labelled antibodies

Jaime Martínez García (University of Oviedo)

Oral O-3

12:50 – 13:05 Collective interactions in ion pairs

Jorge Gonzalo Alcega (University of Zaragoza)

Oral O-4

13:05 – 13:20 Influence of Composition and Synthesis Route on CALF-20/ γ -Alumina Composites for CO₂ Capture

Daniel Felipe Ramírez Ramírez (University of Oviedo)

Oral O-5

13:20 – 13:35 A novel electrochemical strategy for evaluating antibiotic efficacy in live bacteria: proof of concept in *Staphylococcus aureus*

Diego Álvarez Rafael (University of Oviedo)

Oral O-6

13:35 – 13:50 Production of polycyclic aromatics from components of pyrolysis oil

Gvantsa Lomidze (University of Oviedo)



13:50 – 15:30

Lunch

15:30 – 17:05

Session 3

Chairperson: Javier Fernández Reynes

15:30 – 15:50

Keynote K-3

Influence of dry and wet grinding conditions on the mechanical activation process for nanoclays production

Aníbal López Marín (University of Cantabria)

15:50 – 16:05

Oral O-7

From DNA barcoding to naked-eye LAMP assays for on-site detection of seafood fraud in northern Spain

María Celenza (University of Oviedo)

16:05 – 16:20

Oral O-8

Photobiocatalytic approaches for the stereoselective preparation of chiral alcohols

Laura Rodríguez Fernández (University of Oviedo)

16:20 – 16:35

Oral O-9

Nitrogen and lanthanide co-doped polymeric Carbon Dots as versatile and innovative Nanotags for multimodal and targeted bioimaging applications

Jesús Alfonso Montero García (University of Oviedo)

16:35 – 17:05

Flash Poster Session 2

FP-10: Improvement of lateral flow immunoassay sensitivity using biogenic nanoporous structures

Daniela Díaz Jimenez (University of Oviedo)

FP-11: Wet-Oxidized Kraft Lignin as a Renewable Iron-Chelating Agent for Agricultural Applications

Clara Gamonal Fernández (University of Oviedo)

FP-12: A Computational Exploration of N-H Bond Functionalization Driven by Geometrically Constrained Tridentate Phosphine Pincer Complexes

Samuel García García (University of Oviedo)

FP-13: Bio-sourced nanoporous materials as functional modifiers of electrochemical transducers for enhanced biosensing

Alexandra Ritta Alconz Montaña (University of Oviedo)

FP-14: Micro-flow liquid chromatography-ESI-QTOF for lipidomic profiling of volume-limited samples

Guillermo Viejo Palenzuela (IPLA-CSIC)

FP-15: Understanding the role of heating rate and water dynamics in starch foam formation by thermocompression

Josselyne Arely Villarroel Ayala (University of Alicante)

FP-16: One-Pot Cascades for Chiral β -Hydroxy Esters via L-Cysteine Promoted Hydration

Marta Menéndez González (University of Oviedo)

FP-17: Single-Cell Biomarker Analysis by ICP-MS and Mass Cytometry: Implications for Immunotherapy

Ángela de la Rosa Díaz (University of Oviedo)

FP-18: Electrochemical Lateral Flow Biosensor for Rapid Pathogen Detection

Mario Pérez Rodríguez (University of Oviedo)

17:05 – 17:45

Coffee Break – Poster Session 2

17:45 – 19:20

Session 4

Chairperson: Manuel Plaza Martínez

17:45 – 18:05

Keynote K-4

Synthesis of Fused-Housane Derivatives via Intramolecular [2+2] Photocycloaddition

David Suárez García (University of Oviedo)

18:05 – 18:20

Oral O-10

Integrated metabolomic and transcriptomic insights into the protective role of coenzyme Q10 in a retinal hypoxia cellular model

Alicia Villa Vazquez (University of Oviedo)

18:20 – 18:35

Oral O-11

Chloride-Catalyzed Insertion of Carbon Disulfide into Nitrones for the Synthesis of Secondary Thioamides

Marcos López Aguilar (University of Oviedo)

18:35 – 18:50

Oral O-12

S-doping of sustainable carbon aerogels as anode of high-performance sodium-ion batteries

Julia Trojaola Gutiérrez (INCAR-CSIC)

18:50 – 19:05

Oral O-13

Crystal Structure Prediction of Molecular Photoswitches

Lucas Martín Boujon Blanco (University of Oviedo)

19:05 – 19:20

Oral O-14

Revalorisation of agrifood waste through solid-state fermentation: biopesticides and biostimulants production

Paula Siñeriz Casado (Autonomic University of Barcelona)



9:00 – 10:35

Session 5

Chairperson: Paula Oulego Blanco

9:00 – 9:20

Keynote K-5

Enhanced Pectin Recovery from Fruit Pomace Using Deep Eutectic Solvents: A Comparative Assessment with Acid Hydrolysis

Lucía Abello Villanueva (University of Oviedo)

9:20 – 9:35

Oral O-15

Sewing pins as electrodes for on-site ELISA readout

Ana Fernández Quesada (University of Oviedo)

9:35 – 9:50

Oral O-16

Microwave-Synthesized Nickel Aerogels for HER

Francisco José Ayllón Plaza (INCAR-CSIC)

9:50 – 10:05

Oral O-17

Photochemical Cross-Coupling of *N*-Tosylhydrazones and Boronic Acids: Difunctionalization and Multicomponent Synthesis

Alvaro Valdés Maqueda (University of Oviedo)

10:05 – 10:35

Flash Poster Session 3

FP-19: Targeting cancer-associated aberrant O-glycans in pathological MUC1 with aptamers

Alessandra Martucci (University of Oviedo)

FP-20: Towards an Integrated Understanding of Artisanal Kombucha: Biochemical, Microbiological, and Life Cycle Assessment Approach

Ares Fernández Fernández (University of Oviedo)

FP-21: Evaluation of an Artificial Neural Network for Copper Quantification in Optical Emission Spectroscopy Using SCGD-OES

Cristina López Perandones (University of Oviedo)

FP-22: Chemical engineering and conjugation strategies for A40s RNA aptamer to enhance structural stability and functional efficacy in Glioblastoma Multiforme

Martina Mascolo (University of Naples Federico II)

FP-23: Pickering emulsions stabilized by cocoa bean shell using different types of oils

Karla Mariuxi Villagrán Andrade (University of Oviedo)

FP-24: Total Synthesis of Diterpenoid Compounds

Rafael García López (University of Oviedo)



FP-25: Photochemical Oxidation of β -Hydroxynitriles: Applications in Biocatalytic Deracemization

Sara Filgueira Fernández (University of Oviedo)

FP-26: Deep Eutectic Solvents for Sustainable Extraction of Phenolic Compounds from Hazelnut Shells

Sara Rodríguez de la Fuente (University of Oviedo)

FP-27: Synergy of CsPbBr₃ perovskite nanocrystals supported on NiFe-layered double oxide enables CO₂ photothermal hydrogenation

Kevin Mego (ITQ, UPV-CSIC)

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

11:15 – 13:30 Session 5

Chairperson: Mario Corte Rodríguez y Beatriz Fernández García

Oral O-18

11:15 – 11:30 Biomass-derived carbon nanoparticles for high-rate sodium storage

Angel del Blanco García (INCAR-CSIC)

Oral O-19

11:30 – 11:45 Temperature-controlled synthesis of sustainable carbon aerogels for efficient sodium-ion battery anodes

David García Pérez (INCAR-CSIC)

Oral O-20

11:45 – 12:00 Alkaline Hydrolysis of Sewage Sludge for the Production of Protein Hydrolysates

Zaira Fernández Larriet (University of Oviedo)

Oral O-21

12:00 – 12:15 Machine Learning Tools in the Gold(I)-Catalyzed Intramolecular C(sp³)-H Bond Functionalization: Predictive Statistical Analysis

Omar Arto (University of Oviedo)

Oral O-22

12:15 – 12:30 Dynamic Colloidal Plasmonic Metasurfaces via templated self-assembly on Sb₂S₃

Nineli Abramidze Kublashvili (University of Cantabria)

Plenary

12:30 – 13:30 Beyond the PhD: Decisions and Realities of a Research Career

Armando Menéndez Estrada (ASINCAR)

Closing ceremony