

PROGRAMME OF II WMPECE

22nd February 2024

8.30 Aperture

Prof. Antonio Aparicio, Vice-Rector for Research at the University La Laguna

Prof. Pedro Núñez Coello (Chairman)

Prof. Enrique Rodríguez Castellón (Co-Chairman)

Session Chairperson: Enrique Rodríguez Castellón

9:00 Teófilo Rojo, University of Basque Country

"Advanced Materials for Li and Na-ion battery technologies: Effect on the energy transition."

9:45 Elisa Moretti, Ca' Foscari University of Venice

"Customizing inorganic nanomaterials synthesis for environmental remediation."

10:15 Conchi Ania CEMHTI (UPR 3079), CNRS, Univ. Orléans, Orléans, France

"Applying photocatalysis to the regeneration of saturated granular activated carbon used in water treatment: a pilot scale study."

10:45 Federico Polo, Ca' Foscari University of Venice.

"Nickel Hexacyanoferrate Nanocubes as Highly Performing Catalyst for Solar-Light-Driven Photodegradation of Metronidazole."

11:15 Coffee break

Session Chairperson: Elena Pastor Tejera

11:45 Gerardo Colón, Institute of Materials Science Seville, CSIC

"Thermal Assisted Photocatalysis for Energy Applications: H₂ Production and CO₂ Valorisation."

12:15 Juan Carlos Colmenares, Polish Academy of Sciences

"Carbon-based nanostructured composite (piezo)photocatalysts: energy and organic redox synthesis applications."

12:45 Domingo Pérez Coll, Institute of Ceramic and Glass-CSIC, Madrid

"Layered cathode architectures deposited by spray pyrolysis for optimized solid oxide cells."

13:15 Jesús Prado Concal, Complutense University of Madrid

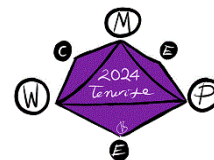
"Harvesting power from waste heat: Unveiling the potential of thermoelectric materials for clean energy generation."

13:45 Lunch and Poster Session

Session Chairperson: María del Carmen Román

15:30 Elena Pastor Tejera, University of La Laguna

"Noble metal-free catalysts for electrolysers and fuel cells."



16:00 Alfonso Caballero Martínez, University of Sevilla

“Cobalt-based Mesoporous TiO₂ Catalyst for Fischer-Tropsch Reaction.”

16:30 Luis Sánchez Granados, University of Cordoba

“2D/2D NiTi-LDH/BiOBr photocatalyst with extraordinary NO_x removal under visible light.”

17.00 Coffee break

Session Chairperson: Juan Carlos Colmenares

17.30 Juan Carlos Calderón, University of La Laguna

“Modification of nanostructured materials with natural dye sensitizers: applications in energy production and water electroremediation.”

17.45 Orhan Sisman, Alexander Dubček University of Trenčín, Slovakia

“Photocatalytic activity of TiO₂ nanorods on spherical FTO granules”

18:00 Ricardo Adolfo Medina Echavarría, University of Manizales (Colombia)

“Design of a solar cell based on simulations of InAlN semiconductor nanostructures.”

18.15 Flash Oral Session

Flash Communication Session Panel:

Enrique Rodríguez Castellón, Ana Belén Jorge Sobrido,

Alfonso Caballero and Conchi Ania

18.15 Abraham Castilla Silvestre, University of La Laguna

“Unleashing the potential application of direct ammonia fuel cells”

18.20 Stephan Delgado, University of La Laguna

“MXenes as catalysts for hydrogen evolution reaction”

18.25 Modesto González Rodríguez, University of La Laguna

“La_{3-x}Ca_xNbO_{7-δ} for application in power conversion devices”

18.30 Hans Klein Sánchez, University of La Laguna

“Zn_{1-x}Cd_xS/TaON for photocatalytic water splitting”

18.35 Jesús Gabriel Madrid Negrín, University of La Laguna

“Electrolytes with pyrochlore structure based on the La_{2-x}Ca_xScNbO_{7-δ} for application in solid oxide electrolyzers (SOEC)”

18.40 María Luisa Marín, Polytechnic University of Valencia

“Photocatalysts for environmental applications”

18.45 Airán Ródenas, University of La Laguna

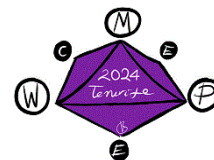
“Reactor: Optical fibre plasmonic microreactor for flow chemistry”

18.50 Víctor Sánchez Toledo, University of La Laguna

“Heterostructures of β-TaON with TiO₂ for hydrogen production by water splitting”

19.15 Poster Session

20.00 End of day



23rd February 2024

Session Chairperson: Gonzalo García Silvestro

9:00 Ana Belén Jorge Sobrido, Queen Mary University of London

“Modifying hematite to enhance photoelectrocatalytic activity for water oxidation.”

9.45 Marcos Fernández-García, Institute of Catalysis and Petrochemistry- CSIC, Madrid

“Photocatalysis: Quantitative analysis of Photo and Thermo-Photo Reactions “

10:15 Anna Kubacka, Institute of Catalysis and Petrochemistry – CSIC, Madrid

“Photo and Thermo-Photo Production of Hydrogen from biomolecules.”

10:45 Javier Fernández Sanz, University of Seville

“High-throughput screening of thermoelectric materials by machine learning “

11:15 Coffee Break

Session Chairperson: Elisa Moretti

11:45 Sergio Díaz Coello, University of Innsbruck

“Alkaline CO reduction at modified Cu single crystals - Chasing the selective formation of ethanol.”

12.15 Yolanda Pérez Cortés, IMDEA- Rey Juan Carlos University

“Improved Photocatalytic Performance of Lead-Free Organic-Inorganic Hybrid Perovskites in H₂ Production. “

12.30 Giada Caniglia, Ulm University

“Investigation of nano- and micro-photocatalytic systems via scanning electrochemical probe microscopy.”

12.45 Gustavo Javier Chacón Rosales, Polytechnic University of Valencia-ITQ

“Advancing Hydrogen Production: Exploring Alcohol Photo Reforming with Hybrid Gold Based Catalysts Generated Through Physical Enrichment.”

13.00 Hakim Faraji, University of La Laguna

“Covalent Triazine Frameworks for Photocatalytic Applications: challenges and new opportunities. “

13:15 Closing ceremony

13.45 Lunch

15.30 Tour to El Teide.