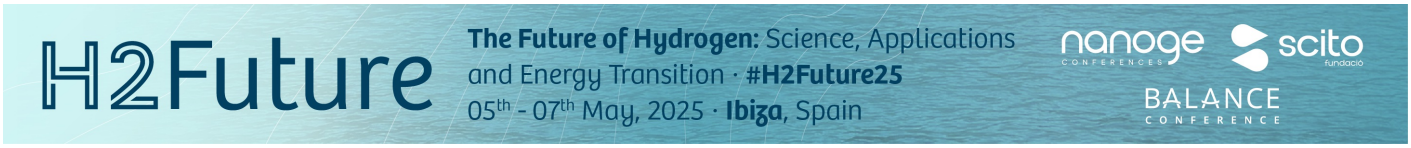

The Future of Hydrogen: Science, Applications and Energy Transition (H2Future25)

Energy transition

Ibiza, Spain, 2025 May 5th - 7th
Conference Chairs: Teresa Andreu, Bahareh Khezri and Jose Mata

Conference Program

May 5th - Day 1 (Monday)	
08:30 - 09:15	**Registration**
09:15 - 09:30	**Opening #H2Future**
	Session 1.1 #H2Future25 Chair: Bahareh Khezri
09:30 - 10:00 #H2Future25-I1	Sanjay Mathur *(Institute of Inorganic and Materials Chemistry University of Cologne, Greinstrasse 6, D-50939 Cologne, Germany)*, Naina Goyal, Touraj Karimpour, Benedikt Witulski, Thomas Fischer Advanced Materials Steering Hydrogen Transition
10:00 - 10:15 #H2Future25-O1	Marcus Einert *(Department of Materials and Earth Sciences, Surface Science Laboratory, Technical University of Darmstadt, Otto-Bernd-Strasse 3, 63287 Darmstadt, Germany)*, Arslan Waheed, Dominik Moritz, Stefan Lauterbach, Anna Kundmann, Sahar Demi, Helmut Schlaad, Frank Osterloh, Jan Philipp Hofmann Mesoporous CuFe2O4 Photoanodes for Solar Water Splitting Oxidation: Impact of Surface Morphology on the Photoelectrochemical Properties
10:15 - 10:30 #H2Future25-O2	Edoardo Maggi *(Photovoltaic Group, Polytechnic University of Catalonia, Barcelona, Spain)*, Oriol Segura, Arnau Torrens, Pau Estarlich, Marcel Placidi, Jordi Llorca, Lydia Wong, Lluis Soler, Edgardo Saucedo Advancing Selenium-Based Photocathodes for Solar-Driven Hydrogen Evolution: From Material Optimization to High-Performance Devices
10:30 - 11:00 #H2Future25-I2	Emilio Palomares Gil *(Institución Catalana de Investigación y Estudios Avanzados (ICREA), URV/ICIQ)* SOLAR POWERED HYDROGEN CATALYSIS
11:00 - 11:45	**Coffee Break**
	Session 1.2 #H2Future25 Chair: Ana Gutiérrez Blanco
11:45 - 12:15 #H2Future25-I1	Víctor de la Peña O'Shea *(Photoactivated Processes Unit, IMDEA Energy Institute. Avda. Ramón de la Sagra, 3, 28935 Móstoles (Madrid) Spain)* Catalyzing Change: The Role of Solar-chemistry technologies in the sustainable energy development
12:15 - 12:30 #H2Future25-O1	Carmen Mejuto, David Carvajal, Jose Solera, elena Mas-Marzá, Francisco Fabregat-Santiago *(Institute of Advanced Materials (INAM), Universitat Jaume I, Av. Vicent Sos Baynat, s/n, Castelló de la Plana, 12071 Spain)* Conversion of biomass derivatives into added value products: How capacitance analysis may help to optimize the process
12:30 - 12:45 #H2Future25-O2	MohammadAli Zoljalali *(Department of Physical and Inorganic Chemistry, Universitat Rovira i Virgili, Campus Sescelades, N4 Block, C. Marcel·lí Domingo 1, 43007, Tarragona, Spain.)*, Richard Ahorsu, Francesc Díaz, Magdalena Aguiló, Xavier Mateos Revolutionizing Water Electrolysis: A Membraneless Approach for Hydrogen Production
12:45 - 13:15 #H2Future25-I2	Carolina Gimbert Suriñach *(Universitat Autònoma de Barcelona)* A journey through water splitting catalytic centers and their interaction with conductive materials and semiconductors

May 6th - Day 2 (Tuesday)

Session 2.2 #H2Future
Chair: Ainhoa Cots

11:30 - 12:00	Sophia Haussener *(Laboratory of Renewable Energy Science and Engineering, EPFL, Station 9, Lausanne 1015, Switzerland)*
#H2Future-I1	Photo-electrochemical fuel generation: Innovations in design and operation
12:00 - 12:30	Sixto Gimenez *(Universitat Jaume I, Institute of Advanced Materials (INAM) - Spain)*
#H2Future-I2	Novel heterostructuring strategies to improve the photoelectrochemical performance of BiVO4 photoanodes for solar fuel production
12:30 - 12:45	Alceo Macchioni *(Department of Chemistry, Biology and Biotechnology, University of Perugia, Via Elce di Sotto 8, 06123, Perugia, Italy)*,
#H2Future-O1	Elisa Boccalon, Gabriel Menendez Rodriguez, Iolanda D'Ambrosio, Ferdinando Costantino, Cristiano Zuccaccia, Luca Rocchigiani Catalysts for Renewable Hydrogen Production and NADH Regeneration
12:45 - 13:15	Mathilde Luneau *(Department of Chemistry and Chemical Engineering, Chalmers University of Technology, SE-412 96 Gothenburg, Sweden)*
#H2Future-I3	Understanding the enhanced activity of Pd/CeO2 catalysts in hydrogen oxidation reaction in alkaline media

May 7th - Day 3 (Wednesday)	
	Session 3.1 #H2Future25 Chair: Teresa Andreu
09:30 - 10:00 #H2Future25-I1	Jose Ramon Galan-Mascaros *(Instiute of Chemical Research of Catalonia, ICIQ)* Electrocatalysis and water electrolysis: From materials design to functional devices
10:00 - 10:15 #H2Future25-O1	Laura Fuentes *(Universitat Rovira i Virgili)* Advanced Non-Noble Catalysts for Next-Generation Clean Energy Solutions
10:15 - 10:30 #H2Future25-O2	Lewis Bradley *(Materials, Imperial college London)* Ca-doped PrFeO3 Photocathode Development Towards Photoelectrochemical Water Splitting
10:30 - 11:00 #H2Future25-I2	F. Pelayo García de Arquer *(ICFO – The Institute of Photonic Sciences)* Active interface management in water electrolysis towards improved performance
11:00 - 11:45	**Coffee Break**
	Session 3.2 #H2Future Chair: Jose Mata
11:45 - 12:15 #H2Future-I1	David Tilley *(Department of Chemistry, University of Zurich, Zurich 8057, Switzerland)* Cuprous Oxide for Solar Water Splitting
12:15 - 12:20 #H2Future-T1	joaquim puigdollers *(Center for Research in Multiscale Science and Engineering and Department of Chemical Engineering, Institute of Energy Technologies, Universitat Politècnica de Catalunya (UPC), EEBE, Eduard Maristany 10–14, Barcelona, 08019 Spain)*, oriol segura, edgardo saucedo, edoardo maggi, lluis soler, jordi llorca, cristobal voz, gerard masmitjà Selective interdigitated contacts for improved photocatalytic systems: TiO2 case study.
12:20 - 12:25 #H2Future-T2	Carolina Gimbert-Suriñach, Pau Sarró *(Department of Chemistry and Centro de Innovación en Química Avanzada (ORFEO-CINQA), Universitat Autònoma de Barcelona, Cerdanyola del Vallès, 08193 Barcelona, Spain)*, David Reyes-Mesa, Albert Granados, Adelina Vallribera, Roser Pleixats The Power of Controlling the Catalytic Centers in Boosting the Photocatalytic Hydrogen Evolution Performance of 2D-COFs
12:25 - 12:30 #H2Future-T3	Payal Chauhan *(Department of Inorganic Chemistry, University of Chemistry and Technology Prague, Technická 5, Prague 6, 16628 Czech Republic)*, Bing Wu, Jan Plutnar, Jakub Regner, Alkesh Patel, Martin Loula, Zdenek Sofer Enhanced Water Splitting Performance of CoZnCr@MXene in Alkaline Seawater and Anion Exchange Membrane Electrolysis
12:30 - 12:35 #H2Future-T4	Igor Djerdj *(University of Osijek)*, Dalibor Tatar, Jelena Kojčinović, Stjepan Šarić Application of Rare Earth High-Entropy Oxides for Photocatalytic Water Splitting and CO2 Reduction
12:35 - 12:40 #H2Future-T5	Ainhoa Cots *(Leitat Technological Center)*, Carlos Hurtado, Sandra Martínez, Raquel Arnal, Jorge Luque, Daniele Mologroni, Pau Bosch-Jimenez, Paloma Ortiz, Marcel Boerrigter H2ENRY: Innovative Approaches for Green Hydrogen Production and Purification
12:40 - 13:00	**Discussion #H2Future**
13:00 - 13:10	**Closing #H2Future25**