

Materials for Sustainable Development Conference (MAT-SUS) (NFM22)

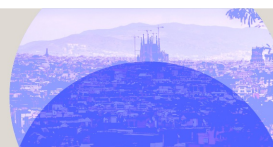
#SolarFuels - Solar fuels through emerging system approaches

Barcelona, Spain, 2022 October 26th - 27th

Conference Chairs: Cao Thang Dinh and F. Pelayo Garcia de Arquer

Conference Program

October 26th - Day 3 (Wednesday)	
08:55 - 09:00	Room S11+S12 - Chair Introduction
	Session 1.1 Chair: F. Pelayo Garcia de Arquer
09:00 - 09:30	<u>Kibria Md Golam</u> (<i>Department of Chemical and Petroleum Engineering, University of Calgary</i>)
1.1-I1	Directly-Deposited Ultrathin Solid Polymer Electrolyte for Enhanced CO ₂ Electrolysis
09:30 - 10:00	<u>Christine Gabardo</u> (<i>CERT Systems Inc.</i>)
1.1-I2	A Case Study of Scaling Up Electrochemical CO ₂ Reduction to Multicarbon Products
10:00 - 10:30	<u>Csaba Janáky</u> (<i>University of Szeged, HU</i>)
1.1-I3	Differences and Similarities of Electrochemical CO ₂ and CO Conversion
10:30 - 11:15	Coffee Break
	Session 1.2 Chair: Cao Thang Dinh
11:15 - 11:30	<u>Bárbara Polesso</u> (<i>ICFO - Institut de Ciències Fotoniques, The Barcelona Institute of Science and Technology</i>), Sandra Einloft, F. Pelayo Garcia de Arquer
1.2-T1	Water-based nanocapsules of ionic liquid as a potential alternative for CO ₂ emissions reduction
11:30 - 11:45	<u>Viktoria Golovanova</u> (<i>Catalonia Institute for Energy Research (IREC), Jardins de les Dones de Negre 1, 08930, Sant Adrià de Besòs, Spain</i>), Teresa Andreu, Joan Ramón Morante, F. Pelayo Garcia de Arquer
1.2-T2	Photothermal approach to enhance hydrogen production via water splitting
11:45 - 12:00	<u>José Alejandro Arminio-Ravelo</u> (<i>Department of Chemistry, Nano-Science Center, University of Copenhagen</i>), María Escudero-Escribano
1.2-T3	Toward the identification of key parameters for the electrochemical methane activation on IrO _x surfaces
12:00 - 12:15	<u>Manuel Vasquez</u> (<i>Helmholtz-Zentrum Berlin für Materialien und Energie, 14109 Berlin, Germany</i>), Eva Unger
1.2-T4	Stabilization of layered halide perovskites in water solutions for photoelectrochemical applications
12:15 - 12:30	<u>Siddhartha Subramanian</u> (<i>Materials for Energy Conversion and Storage, Department of Chemical Engineering, Delft University of Technology</i>), Thomas Burdyny
1.2-T5	Elucidating Time Dependent Catalyst Utilization by Modifying Flow pattern in a Membrane Electrode assembly for CO ₂ Electrolysis
12:30 - 12:45	<u>Mengran Li</u> (<i>Materials for Energy Conversion and Storage (MECS), Department of Chemical Engineering, the Delft University of Technology, van der Maasweg 9, 2629 HZ Delft, The Netherlands.</i>), Hugo Pieter Iglesias van Montfort, Erdem Irtem, Maryam Abdinejad, Kailun Yang, Mark Sassenburg, Siddhartha Subramanian, Joost Middelkoop, Thomas Burdyny
1.2-T6	Probing dominant catalytically active species for CO ₂ electrochemical conversion in ethanalamine capture medium
19:30 - 22:00	Social Dinner



October 27th - Day 4 (Thursday)

08:55 - 09:00	Room S11+S12 - Chair Introduction
	Session 2.1 Chair: Cao Thang Dinh
09:00 - 09:30 2.1-11	<u>Carlos Morales-Guio</u> (<i>Department of Chemical and Biomolecular Engineering, University of California, Los Angeles</i>), Kangze Shen, Huang Yu-Chao, Joonbaek Jang Electrochemical Oxidation of Methane to Methanol on Electrodeposited Transition Metal Oxides
09:30 - 10:00 2.1-12	<u>Nikolay Kornienko</u> (<i>University of Montreal, Department of Chemistry</i>) Integrating materials design and operando spectroscopy towards electrocatalytic biomass conversion
10:00 - 10:30 2.1-13	<u>Thomas Burdyny</u> (<i>Materials for Energy Conversion and Storage, Department of Chemical Engineering, Delft University of Technology</i>), Mengran Li Coupling CO ₂ Capture and Electrolysis Towards Efficient CO ₂ Mitigation
10:30 - 11:15	Coffee Break
	Session 2.2 Chair: F. Pelayo Garcia de Arquer
11:15 - 11:45 2.2-11	Martí Molera, <u>Teresa Andreu</u> (<i>IN2UB, Universitat de Barcelona</i>) Glycerol valorization on BiVO ₄ and TiO ₂ photoanodes.
11:45 - 12:15 2.2-12	<u>Ali Seifitokaldani</u> (<i>Chemical Engineering, McGill University</i>), Roger Lin, Mahdi Salehi, Jiaxun Guo A Viable Electrochemical Approach Towards Chemical Production: Combined Biowaste Upgrading and CO ₂ Conversion
12:15 - 12:45 2.2-13	<u>Mingchuan Luo</u> (<i>Catalysis and Surface Chemistry, Leiden Institute of Chemistry, Leiden University</i>) Advancing fuel cells by unraveling electrolyte effect on oxygen reduction kinetics on Pt surfaces
12:45 - 12:50	Symposium Closing
17:15 - 17:30	General Closing
17:30 - 20:00	Poster Session

Poster Contribution

310	<u>Seung Yo Choi</u> (<i>Research Institute of Environmental Science & Technology, Kyungpook National University</i>), Hyunwoong Park Artificial Photoconversion of Carbon Dioxide Using Copper-Iron Mixed Oxide films
311	<u>Hye Won Jeong</u> (<i>Research Institute of Environmental Science & Technology, Kyungpook National University</i>), Hyunwoong Park Photocatalytic Conversion of Carbon Dioxide with Indium-Doped TiO ₂ and g-C ₃ N ₄ Composites under UV and Visible Light
342	<u>Aparna M Das</u> (<i>ICFO - Institut de Ciències Fotoniques, The Barcelona Institute of Science and Technology</i>), Andrea Rogolino, F. Pelayo García de Arquer Scalable novel electrocatalysts for water oxidation.