instituto IMDEA energía

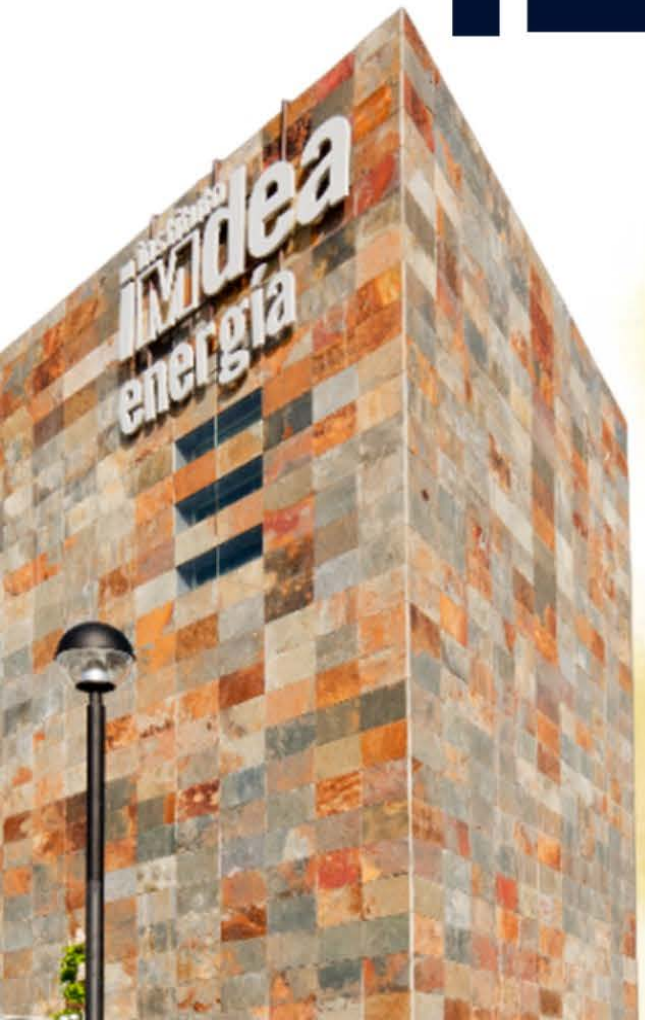
EXCELENCIA MARÍA DE MAEZTU

HR EXCELLENCE IN RESEARCH

2023

14-15 Dec

12th Workshop of Young Researchers



2023 14 Dec

1st Predoc session CHAIRS: Nagaraj Patil, Tania Hidalgo

9:30 Imdea Energy: Current Status and Action Plan 2023. *David Serrano*

10:05	MAURIZIO PAGANO	Catalytic co-pyrolysis of lignocellulose and vegetable oil using n-ZSM-5: synergistic effects for aromatic hydrocarbons production
10:12	IRENE RINCÓN	Removal of emerging contaminants in wastewater via continuous flow experiments
10:19	SANTIAGO ABELLEIRA	Supporting decision-making towards sustainable microbial oil
10:26	SERGIO MORALES	The Media of Wonders! Unraveling the phosphate chelation effect and the impact of calcium on yeast growth
10:33	DANIEL DE LA CALLE	Dendritic materials modified with TiO2 as promising materials to obtain bio jet-fuel precursors through furfural and cyclopentanone aldol condensation
10:40	REBECCA GRIECO	Phenazine-based porous polymer for next generation batteries
10:47	TANIA MAZUELO	Covalent Organic Framework based on BOPHY for solar hydrogen production
10:54	DARINA FRANCESA PICCHI	Magnetic nanocomposites as theragnostic systems
11:00		*Coffee break*

2nd Predoc Session CHAIRS: José González, Catalina Biglione

11:30	FELIPE CAMPOS	A life-cycle parametric approach to sustainable-by-design product development: Application to a high-temperature hydrogen production technology
11:37	MANUEL GONÇALVES	Carboxylates production via anaerobic fermentation: The effect of operational perturbations on process stability.
11:44	KEYVAN MIREHBAR	The Art of Organized Chaos: Unlocking Creativity and Efficiency
11:51	CARLOS GONZÁLEZ	Integrated microalgae and biochar strategy for wastewater treatment
11:58	ALICIA MORTERA	Characterizing electricity grid concerns for subsequent implementation in energy planning tools
12:05	RUBÉN SERRANO	Extending the functionality of advanced materials based on perovskites and MOFs
12:12	SANDRA PALENZUELA	Synthesis of phenazine-based unexplored ultranano_CPP for hydrogen production
12:19	ADRIÁN LAGO	Insights of the acidogenic fermentation of a carbohydrate-rich residue in UASB reactors. Effect of the inoculum source and OLR in VFA production.

2023 14 Dec

1st Postdoc Session CHAIRS: Mariam Barawi, Javier Fermoso

12:30	JENNIFER CUETO	Zeolites applications in the valorization of biomass and plastics waste
12:45	MIGUEL GÓMEZ	Unraveling Photocatalytic Mechanisms by Means of Transient Absorption Spectroscopy
13:00	SERGIO CARRASCO	Beauty & the Best: improving catalysis through defect engineering
13:15	CHARLES-ALEXIS ASSELINEAU	Modification of the optical properties of high-temperature nickel alloy via 3D printed grooves
13:30	PAULA NAVALPOTRO	Advancements in Membrane-Free Redox Flow Batteries: Hybridization
13:45		*Lunch*

3rd Predoc Session CHAIRS: Diego Iribarren - Yolanda Pérez

15:30	LIDIA AMODIO	From Waste to Wisdom: Understanding the Halogen Fate in Catalytic WEEE Plastic Conversion
15:37	NICOLÁS MARTÍNEZ	Applications of machine learning in life cycle assessment for process modelling
15:44	MARTA DE VICENTE	Assessing the implementation of low hydraulic retention time and inoculum source on the anaerobic fermentation of organic wastes
15:51	MARCO VINICIO AVENDAÑO	Application of a numerical method to obtain reduced models of power system with distributed generation
15:58	ALBA FOMBONA	Ion Capture Beyond Limits: Faradaic Materials Unleashing New Possibilities
16:05	FERNANDA TABIA GONZÁLEZ	Applying life cycle assessment to CCU technologies: comparative study of methanol production pathways
16:12	AINHOA DÍAZ	Optimization of bio-oil production from microalgae through thermochemical processes
16:19	GABRIEL SÁNCHEZ	Drinking water purification using surfactant-modified activated carbon

2023 15 Dec

2nd Postdoc Session CHAIRS: Laura Collado, Julio Lado

9:30	TERESA NARANJO	BODIPY as tunable platform for porous organic polymers photocatalyst design
9:45	IGNACIO DANIEL LEMIR	A simple microwave-assisted method for synthesizing metal nanoparticles@MOFs with improved hydrogenation activity
10:00	MARÍA DEL MAR ALONSO	Solid-Solid Transformations: Paving the Way for Large-Scale Dendritic Zeolite Production
10:15	RICARDO CARRAO	Soiling Fast Assessment Approaches and Prediction
10:30	DÉBORA RUIZ	Solar Redox Flow Batteries: towards next-generation energy storage systems.
10:45		*Coffee break*

3rd Postdoc Session CHAIRS: Silvia Greses, Javier Roldán

11:15	ELENA ALONSO	Synthesis of ZSM-5 zeolite in the presence of long-chain surfactants: from mesophases to nanocrystals and dendritic nanoarchitectures
11:30	RAQUEL CASASOLA	Industrial battery recycling waste as secondary raw material: case study
11:45	ALEJANDRO HERRERO	Photocatalytic hydrogen production with solar light
12:00	GERMILLY MORAIS	Hydrogen production by means of solar heat and power in high temperature solid oxide electrolysers
12:15	HAKAN BILDIRIR	Forming Charge-Transfer Complexes within the Pores of Conjugated Porous Polymers
12:30	ADRIANA SOUZA	Lowering the carbon footprint of the aviation industry: Bio-jet from organic waste
12:45	**Voting for awards**	
14:15		*Christmas Lunch*

Poster

EL JARDALI, KHALED	Conceptualization and modelling of a novel solid oxide electrolysis cell stack within the framework of a life cycle assessment
MADDULA, SUMANTH KUMAR REDDY	Conceptualising and Modelling Membrane Electrode Assemblies for High-Temperature PEM Fuel Cells in Aviation within the Framework of a Life Cycle Assessment
MARTORELL, ALEJANDRA	Self-fermentation as an innovative approach to maximize carboxylates production
ARIAS, MARÍA	Activated charcoal detoxification as promising strategy to increase lactic acid production via anaerobic fermentation from municipal green residues
ATHUL, SESHADRI RAMANUJAM	Design and Optimization of Aqueous Zinc//Lignin Flow Battery
MARTÍNEZ, ANTONIO	Organic mediated redox flow batteries
GARCÍA, TOMÁS	Manufacturing Optimization of Lithium-ion Batteries
LLORENTE, JAVIER	Optimization of Cu_2O photocathodes through protective TiO_2 layers for efficient photoelectrochemical hydrogen production
GARCÍA, GABRIEL	Digital Twin of Li-ion Battery: Requirements and Challenges
FODOR, BEATRICE LORENA	Expanding and generalizing the synthesis of dendritic zeolites with different heteroatoms
ROMAY, MARÍA	Key role of Ni in the chemical looping dry reforming of methane using $La_{0.9}Sr_{0.1}Fe_{1-x}Ni_xO_3$ perovskites
LÓPEZ, ANA	Enhancing the properties of ZSM-11 zeolite trough solid-solid transformations.
PÉREZ, GEMMA	Valorization of solid recovered fuels (SRF) through catalytic pyrolysis using different zeolites: n-ZSM-5, USY, and BETA
FERRANDO, JAVIER	Squarate-based metal-organic frameworks for green hydrogen generation
HAJIALILOU, EHSAN	Concentrating solar thermal synthesis of C12A7:e- electrides, a photothermal catalyst for solar fuels production