



Antwerp, Belgium

**10th EuChemS Chemistry Congress**

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**12 - 16 July 2026**



EuChemS kvcv

Monday 13th July 2026  
 Congress theme:  
 Energy, Environment & Sustainability

Session	Timing	Presenter	Title	Topic ID
EES - D1 - O01	10:00-10:15	Athira Ravi	Supramolecular Architectures for Hydrogen Generation at Neutral pH Conditions	Electrochemistry
EES - D1 - O02	10:15-10:30	Prof. Maria Gimenez Lopez	Assembly-driven switching of a POM-carbon nanotube catalyst for acid water splitting	Electrochemistry
EES - D1 - O03	10:30-10:45	Haider Ali	Laser-Assisted Synthesis of High Entropy Oxide-based Freestanding Electrode for Electrochemical Water Splitting in Alkaline Conditions	Electrochemistry
EES - D1 - O04	10:45-11:00	Priya Mukherjee	Surface modified Nafion membrane for improved microbial fuel cell application	Electrochemistry
EES - D1 - O05	11:00-11:15	Sudip Barman	Platinum nanostructures supported on MoO <sub>3</sub> for electrochemical energy conversion and storage applications	Electrochemistry
EES - D1 - O06	11:15-11:30	Chiara Reviglio	Design and Performance Rationalization of Blue-Emitting Copper(I) Complexes Bearing Pyridyl-Pyrazole Ligands for Light-Emitting Electrochemical Cells	Electrochemistry
EES - D1 - O07	11:30-11:45	Jesús León García	CuO-based Ionanofluids as Advanced Working Fluids for High-Efficiency Solar Collectors	Electrochemistry
<b>POSTER FLASH 11:45</b>				
EES - D1 - F01		Geng Dongsheng	Achieving Tunable Selectivity and Activity of Electrocatalytic CO <sub>2</sub> Reduction by Catalysts Design	
EES - D1 - F02		Lin Ching_Hsuan	Activated Ester-Functionalized Poly(ethylene terephthalate) for Degradable Epoxy Thermosets and Recyclable Carbon Fiber Composites	
EES - D1 - F03		Notargiacomo Lorenza	Global Assessment of Anthropogenic Organic Pollutants in Marine Waters	
EES - D1 - F04		Rigual-Miret Jordi	Photothermal/photocatalytic activation of peroxymonosulfate using SrFe <sub>2</sub> O <sub>9</sub> @Ni-P core@shell microparticles for energy efficient water remediation	
EES - D1 - F05		Paone Emilia	Sustainable Upcycling of Spent LCO Batteries as Heterogeneous Co-Based Catalysts for Biomass-Derived Molecule Valorization	
EES - D1 - F06		Di Berardino Giovanni	Impact of Stack Architecture on Stability and Lifetime of CO <sub>2</sub> -to-CO Three Chamber Flow Electrolyzers.	
EES - D1 - F07		Mata Patricia	Valorization of Poly(methyl methacrylate) Waste through Pyrolysis	
EES - D1 - F08		Vilariño Pol	Pollen-Based Photothermal Catalysts: A Sustainable Platform for Advanced Removal of Organic Pollutants and Microplastics	
<b>Lunch</b>				
EES - D1 - I01	14:00-14:30	Ivan Halasz	In Situ Reaction Monitoring, Molecular Dynamics Simulations and Machine-Learning- Augmented Data Analysis in Deciphering Mechanochemical Transformations	
EES - D1 - O08	14:30-14:45	Radovan Sebesta	Making asymmetric organocatalysis greener and more efficient through ball-milling	
EES - D1 - O09	14:45-15:00	Davor Margetic	The Employment of Mechanochemistry for the Synthesis of Thioureas and Guanidines	Sustainable Synthetic Strategies
EES - D1 - O10	15:00-15:15	Peter Baláž	Advances in sulphide mechanochemistry: From metal extraction to energy materials and anticancer drugs	Sustainable Synthetic Strategies
EES - D1 - O11	15:15-15:30	Zara Cherkezova-Zheleva	Mechanochemical approach for greener and effective recycling of platinum group metals from spent automotive catalysts	Sustainable Synthetic Strategies
EES - D1 - O12	15:30-15:45	Poljanec Leon	Mechanochemistry as a sustainable tool for (de)racemization of biaryl atropisomers	Sustainable Synthetic Strategies
EES - D1 - O13	15:45-16:00	Bilge Baytekin	Chemical insights into triboelectric charging of polymers and organic powders	Sustainable Synthetic Strategies
<b>Coffee break</b>				
EES - D1 - O14	16:30-16:45	Yu Zhang	Regulating the Interfacial Electrochemical Behavior of Zinc Anodes for Stable Aqueous Zinc Ion Batteries	Novel Battery Chemistries
EES - D1 - O15	16:45-17:00	Reja Trippaers	Exploring Prussian blue as a safe-and-sustainable-by-design cathode material for sodium-ion batteries	Novel Battery Chemistries
EES - D1 - O16	17:00-17:15	Máté Benedek	Preparation and investigation of cross-linked polyacrylic acid-based hydrogel electrolytes in Zn-air batteries	Novel Battery Chemistries
EES - D1 - O17	17:15-17:30	Cataldo Valentini	Ambipolar donor-acceptor 2D covalent organic frameworks as cathode material for aluminum energy storage device	Novel Battery Chemistries
EES - D1 - O18	17:30-17:45	Philippe Lainé	Designing electrophoric covalent assemblies for molecular-level multielectron accumulation (charge pooling) and storage (in "reservoir" bonds)	Novel Battery Chemistries
EES - D1 - O19	17:45-18:00	Arindam Mal	Polyimide-linked Hexaazatriphenylene-based Porous Organic Polymer with Multiple Redox-Active Sites as a High-Capacity Organic Cathode for Lithium-Ion Bat	Novel Battery Chemistries
<b>Additional parallel session another meeting room</b>				
APC - D1 - O15	16:30-16:45	Lucia Ferrazzano	Greener Peptide and PNA Synthesis for High-Value Pharmaceuticals: From Sustainable Methodologies to Industrially Relevant APIs	Circularity & Sustainability
APC - D1 - O16	16:45-17:00	Stefan Hahn	Applying the SSbD concept in the development of biobased biodegradable polymers	Circularity & Sustainability
APC - D1 - O17	17:00-17:15	Keikhosro Karimi	Integrated Biorefinery Design and Sustainability Assessment for Butyric Acid Production and Separation from Municipal Solid Waste	Circularity & Sustainability
APC - D1 - O18	17:15-17:30	Andrei Ungureanu	Toward More Sustainable Silver Based Antimicrobial Materials: Life cycle Assessment (LCA) of Silver Nanoparticle Composites	Circularity & Sustainability
APC - D1 - O19	17:30-17:45	Laura Fuentes Rodriguez	Rapid synthesis of nickel iron layered double hydroxide nanosheets for efficient oxygen evolution	Circularity & Sustainability
APC - D1 - O20	17:45-18:00	Stijn Cosemans	An In-Depth Study of the Thermodynamics and Kinetics of the Structural Phase Transition of Hydrothermally Synthesized W/VO <sub>2</sub> Microparticles	Circularity & Sustainability
<b>Posters</b>				
EES - D1 - P001		Anna Leo	Mechanistic insights into charge and energy transfer from first-principles calculations	
EES - D1 - P002		Muhammad Aurang Zeb Gul Sial	Ultrafast Laser-Driven Fabrication of NiCoFe Carbides for Exceptional Oxygen Evolution Reaction	
EES - D1 - P003		Vinicius Sarracini Santos	Fluorescent nanolignin for coupled sensing-reduction of hexavalent chromium in aqueous matrices	
EES - D1 - P004		Dong Jin Suh	Dimethyl Ether (DME): From sustainable production to green applications in the low-carbon economy	
EES - D1 - P005		Jens Frackenhohl	The new HRAC Herbicide Mode of Action Classification 2026 - An Essential Contribution to sustainable Agrochemistry	
EES - D1 - P006		Muhammad Zeeshan	Hydrophilic Bipyridine-Sulfonate Polymeric Colloids as Stable Redox Electrolytes for Aqueous Organic Flow Batteries	
EES - D1 - P007		Soufiane Skakri	Elaboration of Bimetallic Transition Metals Reinforced By Para-Phenylenediamine for Monitoring the Oxygen Evolution Reaction in Alkaline Medium	
EES - D1 - P008		Fahim Qaraah	One-Step Synthesis of 3D/2D S, O-Doped q-C <sub>3</sub> N <sub>4</sub> S-Scheme Isotype Heterojunction for Enhanced CO <sub>2</sub> Photoreduction	
EES - D1 - P009		Samah Mahyoub	Tailoring Pd-Ag Nanocorals for High-Current CO <sub>2</sub> Conversion at Pressurized Conditions	
EES - D1 - P010		Hyun Young Jung	Overcoming trade-offs in thick sulfur cathodes for lean Li-S batteries	
EES - D1 - P011		Yong Joon Park	Boosting Electrochemical Performance of LiFePO <sub>4</sub> Through Carbon layer Control	
EES - D1 - P012		Iqbal Azka Al Hamid	Unlocking High Energy Efficiency in Vanadium Redox Flow Batteries through Laser-Modified Graphite Electrodes	
EES - D1 - P013		Caroline Abe Dos Santos	Evaluation of Extraction Parameters on the Phytochemical Profile of Clove Leaf Extracts	
EES - D1 - P014		Oumaima Aqil	Upcycling Industrial Solid Waste into a High-Efficiency Adsorbent for Sustainable Water Treatment	
EES - D1 - P015		Andrii Kostyniuk	CO <sub>2</sub> hydrogenation to ethanol over alkali-promoted trimetallic catalysts in a packed-bed reactor	
EES - D1 - P016		Robert Guiu Sans	Development of plant growth-promoting bacteria with artificial humic acids capsules for enhanced agricultural sustainability	
EES - D1 - P017		Syed Asim Ali	Ni and Ni/Co B-Site Engineered SrFeO <sub>3</sub> as Highly Efficient Catalysts for Ammonia Decomposition and Hydrogen Production	

EES - D1 - P018	Aasif Khan	Engineering nitrogen-enriched covalent organic framework for carbon capture
EES - D1 - P019	Thamer Gouasmia	Design and Characterization of New Eco-Friendly Nitrobenzoxazine Polymers with Energetic Potential
EES - D1 - P020	Maryam Bazargan	Efficient Pharmaceutical Degradation Using Magnetic Bio-Based Photocatalyst: A Synergistic Approach of Adsorption, Photocatalysis, and Photo-Fenton Mechanisms
EES - D1 - P021	Ayodeji Adegununiviers	EcoChem Strategies for Mitigating Pharmapollutants in Nigerian River Fish
EES - D1 - P022	Maryam Bazargan	A Sustainable Hydrogel Bead Platform: Integrating MIL-100(Fe)/GO with Alginate for Batch and Continuous Flow Dye Removal
EES - D1 - P023	Maryum Ali	Plastic Waste Valorization through Electroreforming for and Value-added Chemicals and Green Hydrogen
EES - D1 - P024	Bivas Chandra Roy	Efficient Hydrogenation of CO <sub>2</sub> to Formate by Homogeneous Bidentate Phosphine-Rhodium System
EES - D1 - P025	Zulfiqar Ahmad Rehan	Closed-Loop Chemical Recycling of PET via Glycolysis: Preserving Structural, Thermal, and Molecular Integrity with Post-Consumer Waste
EES - D1 - P026	Jordi Rigual-Miret	Synthesis of nickel-based catalysts for the (photo)thermocatalytic production of $\gamma$ -valerolactone
EES - D1 - P027	Britt Segers	Entropy management of PLA: Novel state-based screening method for decision-support from feedstock to end-of-life treatment
EES - D1 - P028	Imam Hidayat Nurwahid	An integrated biorefinery approach for sustainable fuel production via low-pressure flow-through organosolv fractionation and catalytic lignin upgrading
EES - D1 - P029	Allan Niidu	Mechanically aided synthesis and application of catalyst for hydrogen generation
EES - D1 - P030	Amina Ouadah	Insight PET water bottles recycling through reactive extrusion: conditions and processing
EES - D1 - P031	Mohammed Seddik Razali	Experimental Investigation of Antibacterial Properties and Mechanical Performance Enhancement of Sintered Seashell-Reinforced Poly(lactic acid) and Poly(butylene succinate) Biocomposites Planned for 3D Printing
EES - D1 - P032	Mohd Shafiq Nasir	Toward selective detection of polycyclic aromatic hydrocarbons using microfluidics paper analytical devices
EES - D1 - P033	Nuria Martin	Pd-Imidate@SBA-15: A Multifunctional Heterogeneous Catalyst for the Aqueous Room Temperature Hydrogenation of CO <sub>2</sub> to Formic Acid
EES - D1 - P034	Luca Mastroianni	Post-combustion CO <sub>2</sub> capture using washcoated structured sorbents
EES - D1 - P035	Regina Silva	Development of 3D-Printed Composites of PLA Reinforced with Biomass
EES - D1 - P036	Márcia C. Bisinoti	Production of Activated Magnetic Chars from Sugarcane Bagasse for Toxic Metal Removal
EES - D1 - P037	Altair B. Moreira	Binding Properties and Structural Characterization of Humic Extracts from Sewage Sludge Hydrochars
EES - D1 - P038	Hugo Vallet	Combining microwave-induced CO <sub>2</sub> plasma with a carbon bed: optimizing conversion and energy cost
EES - D1 - P039	Sajjad Hussain	First-Principles Insights into CO <sub>2</sub> Reduction and the Competing HER on Transition Metal-Loaded Zr <sub>12</sub> O <sub>12</sub> Nanocages
EES - D1 - P040	Maria-Juliana Chirica	Acid-modified MXenes as catalysts for upcycling PET by hydrolysis
EES - D1 - P041	Marco Prazeres	Additive Removal from Plastics to Enhance Recycling Efficiency
EES - D1 - P042	Sameera Shafi	Ti <sub>3</sub> C MXene-Driven EMSI in Cu-ZnO Catalysts for CO <sub>2</sub> Hydrogenation to Methanol
EES - D1 - P043	Imelda Octa Tampubolon	Rapid mechanosynthesis of carbon-doped nickel sulfides for efficient evolution of hydrogen via water splitting
EES - D1 - P044	Hifsa Khurshid	Optimization of the polycyclic aromatic hydrocarbons (PAHs) removal process in wastewater using MXene-supported activated carbon (MX-AC) material
EES - D1 - P045	Lien Lemmens	Solubility and antisolvent crystallization of lithium hydroxide monohydrate in various organic solvents
EES - D1 - P046	Inês Almeida	Chemical Recycling of Thermoplastic Polyurethane Residues from the Ceramic Sector
EES - D1 - P047	Ottavia Bettucci	Towards Sustainable DSSCs: Optimizing Dye-DES Interactions for Enhanced Efficiency in Indoor and Outdoor Applications
EES - D1 - P048	Lucas Elvira	Silica coating of PEM fuel cell Pt/carbon electrocatalysts to enhance durability upon operation
EES - D1 - P049	Veronica Avila-Jaimes	Degradation of malachite green by solar Fenton-like catalyzed with iron supported on zeolite and CaO <sub>2</sub> obtained from eggshell
EES - D1 - P050	Chanqjoon Park	Improved Chemical Recycling of PET Derivatives: Enhanced Glycolysis via Morphology Control and Catalysis
EES - D1 - P051	Muhammad Zahid	Constructing Defective Sites in MIL-101(Cr)-NH <sub>2</sub> MOFs: Unlocking Pt-Based Synergistic Catalysis for Selective Hydrogenation of Furfural and 4-Nitrophenol
EES - D1 - P052	Tayebah Sharifi	Co-Doped BiVO <sub>4</sub> Isotype Homojunctions for Enhanced Photocatalytic Water Treatment
EES - D1 - P053	Muhammad Aftab	Sustainable Waste-Derived Carbon Nanostructures from Oil Fly Ash for Energy Storage Devices
EES - D1 - P054	Femke Derison	Phase equilibria and thermodynamic properties of the nickel(II) methanesulfonate – methanesulfonic acid – water system
EES - D1 - P055	Soyeb Pathan	Design of Copper-based catalysts from E-waste for catalytic upgradation of bioplatfrom Molecules
EES - D1 - P056	Adriana Vulcu	Slurry Electrolysis for Sustainable Copper Recovery from Electronic Waste
EES - D1 - P057	Ata Ur Rehman	Accelerated LiF/HCl Etching for Rapid MXene Synthesis Beyond Ti <sub>3</sub> AlC <sub>2</sub>
EES - D1 - P058	Angela Kasza	Direct Electrochemical Processing of E-Waste for Sustainable Copper Recovery
EES - D1 - P059	Julia De Oliveira Primo	Antiviral Co-Doped ZnO Pigments: Solution Combustion Synthesis Using Aloe Vera Extract as an Alternative Green Fuel
EES - D1 - P060	Jesús R. Berenguer	Sol-Gel Coordination Chemistry for Sustainable Heterogeneous Photocatalysis
EES - D1 - P061	Robert Pietrzak	Sustainable chitin carbons from Hermetia illucens pupal waste for ethylparaben removal
EES - D1 - P062	Emanuele Bassani	Influence Of The Grinding Conditions On The Particle Size Of Foam Powder
EES - D1 - P063	Robert Pietrzak	Carbon Adsorbents from Fennel and Caraway Seeds via Chemical Activation for Dextetropfen Removal
EES - D1 - P064	Radka Guldanova	Supporting Environmental Remediation through the NanoEnviCZ Infrastructure: Development of Cyclodextrin-Modified Nanofibrous Membranes
EES - D1 - P065	Fileto Rodriguez	Establishing Raman spectral references for Climate- and Energy-Relevant Materials through ab initio dynamics and experimental tools
EES - D1 - P066	Benni Zou	Insights into Electro-oxidative Dehydrogenation of Aldehydes on Copper Foam
EES - D1 - P067	Abdulrahman Musa	Adhesive performance of polyvinyl acetate biocomposites reinforced with polysulfone and luffa fibre.
EES - D1 - P068	Albert Serrà	BiO <sub>2</sub> /SnO <sub>2</sub> nanofibers for robust visible-light/PMS-driven multipollutant mineralization
EES - D1 - P069	Ali Haider	Development of hollow bimetallic catalysts supported on nanostructured carbons for sustainable PEM fuel cell electrodes
EES - D1 - P070	Arleth Gualle	Green synthesis of silver nanoparticles using plant extract for water disinfection
EES - D1 - P071	Bruna Fernandes	Valorization of textile waste through enzymatic processes
EES - D1 - P072	Norbert Janowicz	Lumifilm: Luminescent downshifting films for improving photosynthetic efficiency of photobioreactors
EES - D1 - P073	Wouter Marchal	Assessment of biochar derived from Urena lobata fibers for use in PHA-based films
EES - D1 - P074	Hafiz Adil Qayyum	Ti <sub>4</sub> C <sub>3</sub> and Ti <sub>4</sub> N <sub>3</sub> MXenes for Next-generation sodium ion battery anodes



Tuesday, 12th July 2026  
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Session	Time	Presenter	Title	Topic ID
EES - D2 - 001	10:00-10:15	Mohsen Ghollami	Electrified Carbon Capture by Adsorption: Linking Adsorbent Formulation, Structure, and Regeneration Behavior	CO2 Capture & Utilisation
	10:15-10:30	Gabriela Rodriguez Almaguer	Hierarchical porous silica with tunable porosity for CO2 capture and separation	CO2 Capture & Utilisation
	10:30-10:45	Burak Kurnaz	Environmentally Sustainable CO2 Sequestration via Gas Hydrates in Marine Clay Sediments	CO2 Capture & Utilisation
	10:45-11:00	Adel Ismail	Resin Resin-Derived Carbon Embedded in Mesoporous Magnesia Nanocrystalline Sorbents for Highly Efficient CO2 Capture and Multiple Regeneration Performances	CO2 Capture & Utilisation
	11:00-11:15	Sadeq Majeed	Porphyrin Molecular Mediators Enhancing the Hydrogenation of CO2 at the Liquid-Solid Interface for Gas/Liquid Catalysts	CO2 Capture & Utilisation
	11:15-11:30	Fabrizio Molinari	Engineering orange-based platforms for efficient CO2 capture	CO2 Capture & Utilisation
	11:30-11:45	Deeksha Jaiswal	Zr-doped TiAlCrTiX MXene for enhanced CO2 capture and efficient catalytic conversion to value-added products	CO2 Capture & Utilisation
<b>POSTER FLASH 1145</b>				
EES - D2 - F01		Messayeh Ramon	CO2 Valorization via Ionic Liquids: A Tandem Process for the Synthesis of Cyclic Carbonates and Urethanes	
EES - D2 - F02		Vantomme Christine	Shining Light on Plasma Catalysis: Transparent DBD Reactors for CO-Conversion	
EES - D2 - F03		Marcos Renato	Towards Greener Energy: Bio-Based Alternatives for Sodium-Ion Battery Components	
EES - D2 - F04		Basak Maral	Rapid combusive mechanochemical synthesis of metal chalcogenides for energy conversion applications	
EES - D2 - F05		Basak Hiralak	Enhancing the Valence Band Charge Localization via Zinc Doping into MnWO4 to Promote Selective Ammonia Electrooxidation	
EES - D2 - F06		Da Silva Jacques João Pedro	Pt-Ni based nanomaterials enabling coupled cathodic hydrogen evolution and anodic formaldehyde oxidation in fuel cell systems	
EES - D2 - F07		Nan Lan	Enhancing photosynthetic light utilisation with wavelength-shifting polymer films	
EES - D2 - F08		Yu Yi-Chi	Sustainable Air Filtration Media from Post-Consumer Plastic Waste via High-Temperature Centrifugal Fiber-Drawing	
<b>POSTER FLASH 1146</b>				
EES - D2 - F09		Giri Sudatta	Role of BN Co-doping and Varied Coordination on the Activity of Graphene Supported SACs for CO2 Hydrogenation to CH4	Role of BN Co-doping and Varied
EES - D2 - F10		Kumar Upadhyay Rajash	Comparative study of Washcoated copper foam and traditional catalyst for Methanol Steam Reforming Targeting Membrane Reformer	Comparative study of Washcoated
EES - D2 - F11		Pestole Georgeta	New insights in the tricky reaction of isopropanol dehydration to propylene	New insights in the tricky reaction of
EES - D2 - F12		Templ Johanna	Decoding Mechanochemical Drivers: Experimental Isolation of Single Impact, Cumulative Energy, Aging and Liquid-Assisted Grinding Effects in Organic Mechanochemistry	Decoding Mechanochemical Drivers:
EES - D2 - F13		Hajar Asadi	Design of Functionalized Metal-Organic Frameworks for Efficient CO2 Fixation into Cyclic Carbonates under Mild Conditions	Design of Functionalized Metal-Organic
EES - D2 - F14		Pawar Kanchan	Z-Scheme Charge Transfer in BiVO4/Boron-Doped g-C3N4 Heterostructures for Photoelectrocatalytic Hydrogen Production	Z-Scheme Charge Transfer in
EES - D2 - F15		Gao Shuyan	Synergistic effects of copper-based multi-principal-element alloys on electrocatalytic nitrate reduction to ammonia	Synergistic effects of copper-based
EES - D2 - F16		Xue Xiaopan	Liquid-Solid Phase Separation-Assisted Direct CO2 Capture from Air with a New System	Liquid-Solid Phase Separation-Assisted
<b>Lunch</b>				
<b>TOPIC 1147</b>				
EES - D2 - 008	14:30-14:45	Manuel Alejandro Endriou Eriuez	Biogeochemical Characterization of Contaminated Ecosystems: Insights from PFAS	Environmental Chemistry
EES - D2 - 009	14:45-15:00	Gerhard Lammel	Air-soil exchange of PFAS – observations in rural central Europe and boreal forest	Environmental Chemistry
EES - D2 - 010	15:00-15:15	Oliver Schlangenotto	Comprehensive PFAS characterization in contaminated soils by integrated target, suspect, and non-target analysis combined with dTDP assay	Environmental Chemistry
EES - D2 - 011	15:15-15:30	Michela Yamamoto	From soil adsorption to bioavailability: environmental fate of a plant-derived biostimulant	Environmental Chemistry
EES - D2 - 012	15:30-15:45	Yves Vandecasteele	The influence of Cu and Cd additions on their bioavailability in uncontaminated soils	Environmental Chemistry
EES - D2 - 013	15:45-16:00	Adrian Covaci	Dynamics of emerging PFAS in a contaminated terrestrial ecosystem	Environmental Chemistry
<b>COFFEE BREAK</b>				
EES - D2 - 014	16:30-16:45	Teogaye Adane Birhan	Pollen-based MOF bio-adsorbent for removing dye and lead from water	Air, Water, and Soil Pollution
EES - D2 - 015	16:45-17:00	Bruno Henriques	Kraft lignin for efficient and sustainable mercury removal from aqueous systems	Air, Water, and Soil Pollution
EES - D2 - 016	17:00-17:15	Zuleikha Rashid	Dualist Fouling Fingerprints as a New Framework for Mechanistic Assessment of Microplastics in Drinking Water Premise Plumbing	Air, Water, and Soil Pollution
EES - D2 - 017	17:15-17:30	Alexandra Ana Clavardari	Assessment of red mud slurry pit values remediation by means of aquatic plants	Air, Water, and Soil Pollution
EES - D2 - 018	17:30-17:45	Christine Khoury	Studying the Synergistic Effect between LDH and P25 for Dyes Removal from Water	Air, Water, and Soil Pollution
EES - D2 - 019	17:45-18:00	Sidi Zhu	High-Performance Nanohybrid Polyamide Membrane for Reverse Osmosis Desalination	Air, Water, and Soil Pollution
<b>POSTERS</b>				
EES - D2 - P001		Anthony Sanderaz	From materials development to system integration: photoanode surface activation and validation of a continuous-flow PEC device for efficient solar hydrogen production	
EES - D2 - P002		Abdelkhalim Alimen Kaidi	Comparative study on the inhibitory effectiveness of plant extracts against corrosion of a metal alloy	
EES - D2 - P003		Kalithorou Karini	Electrified Adsorptive Separation of Fermentative Bio-Butyric Acid	
EES - D2 - P004		Nikolai Malya	Heteroatom-assisted defect-modulated Cerium Oxide Catalysts for the Efficient Synthesis of Dimethyl Carbonate from CO2 and Methanol	
EES - D2 - P005		Davoula Ingrachan	Synthesis and Characterization of Sol-Gel-Derived Co/SiO2 Nanocomposites for Electrochromic Applications	
EES - D2 - P006		Sofia Calder	Determination of TPO Recycling Processes used in the Ceramic Industry	
EES - D2 - P007		Yi-Chi Yu	Synthetic Antiviral Activity of Nano Cu-Au/TiO2 Nanocomposites for Sustainable Environmental Virus Inactivation	
EES - D2 - P008		Rahul Mishra	The Role of Electronic and Defect Chemistry in Tuning the Acetone Sensing Performance of Galliumium-Doped Ceria	
EES - D2 - P009		Pavlina Konovalova	Functionalized Cyclodextrin Materials for Advanced PFAS Removal	
EES - D2 - P010		Albert Serra	Pollan-Templated Cu and Ni/Cu (Photo)Catalysts for Sustainable Degradation of Pharmaceutical Pollutants	
EES - D2 - P011		Evilina Colinao	Insights into the mechanochemical synthesis of greener pharmaceuticals	
EES - D2 - P012		Anusha Yalavadi	Design and Synthesis of Pd-Activated CeO2 Membranes with Barriers for Concentration Polarization Control and enhanced Hydrogen Separation	
EES - D2 - P013		Alexandro Isabon	Enhancing Hydrogen Production and CO2 Photoreduction Efficiency Using TiO2 Based Materials	
EES - D2 - P014		Vinay Bhatnagar and Barinder	New Bi (TiO2) and Bi (Pd) Based Electrode Materials for SOFCs	
EES - D2 - P015		Andrea Casagrande	Mechanochemical Hydrogen for Sustainable Agrochemical Synthesis	
EES - D2 - P016		Farah Zahedi Rahimi	Medicinal Product Selectivity in Photochemical CO2 Reduction by Atomic Engineering in Structural COFs	
EES - D2 - P017		Antonio Moncollo	Photoacoustic homocoupling of benzylamines under ambient and green conditions using naturally derived photocatalyst and solvent	
EES - D2 - P018		Raaf Abakar	Microwave-Assisted Pyrolysis of 3D-Printed Poly(lactic acid) Valorization of Bioplastic Waste into Renewable Bio-Oil	
EES - D2 - P019		Abdullahi Taimu	Engineered zeolite synthesis as catalyst for divivine the future refinery feeds	
EES - D2 - P020		Yakubu Wudil	Metallic Cu-Ni nanoinclusions for simultaneous electrical enhancement and thermal suppression in Bi2Te3/Sb2Te3 thermoelectric thin films	
EES - D2 - P021		Rabia Ahmad	Hybrid Capacitors Developed by MXene-Carbon Nanotube Network Derived from Mixed-Metal Frameworks	
EES - D2 - P022		Mzamo Shooli	The Influence of Incorporating alkaline metals on alumina for xylitol hydroxyisotriols over Ni catalysts	
EES - D2 - P023		Zulfikar Ahmad Rehan	Development of a Superhydrophobic Nonwoven Polyester Membrane for Efficient and Scalable Oil-Water Separation: Eco-Friendly Fabrication and Performance Evaluation	
EES - D2 - P024		Milad Mozabbi	Techno-Economic Assessment of Energy-Optimized Grass Biomethane and Bioethanol Production Simulated with Aspen Plus and Pinch Technology	
EES - D2 - P025		Weiwai Shi	Advancing Solar Water Evaporation and Desalination with Bio-Inspired Interfaces	
EES - D2 - P026		Stephan Nyoni	Photoelectrochemical green hydrogen production through electron spin polarization	
EES - D2 - P027		Abdullahi Balfagor	Fabrication of 2D/1D S-scheme Pt-C3N4/Au2VO4 nanocomposite with high interfacial charge separation for Highly Selective Photoconversion of CO2 into Fuels	
EES - D2 - P028		Esha Noor	Benzothiazole-Thiourea Functionalized MgO Nanoparticles for Efficient Cadmium Adsorption: Synthesis, Characterization, and Mechanistic Insights	
EES - D2 - P029		Khaled Ashmamm	Efficient Adsorption and Removal of the Herbicide 2,4-Dichlorophenoxyacetic Acid from Aqueous Solutions Using MIL-101(B)-NH2	
EES - D2 - P030		Dimitrios Giannakoudakis	Bimetallic MOF-Carbon Textile Composites for Multifunctional Air and Water Decontamination via Adsorption-Catalysis Synergy	
EES - D2 - P031		Xinruo Li	Tuning the Interfacial Microenvironment: Hydrophilic/Hydrophobic and Cationic Effects on CO2 Reduction Selectivity	
EES - D2 - P032		Twinkle Twinkle	Water Derived Iron Nanooxides from Iron Oxide Dust for the Removal of various Water Pollutants	
EES - D2 - P033		Rotou Adeniaser Maryam Tavrik	Superior Removal Pb2+ using Green Nanoparticles (GNP) prepared via Nano-Emulsion Liquid Membrane (NEM) based paraffin oil/Na-silicate from aqueous solution	
EES - D2 - P034		Abir Ali	Ni/AMMOX Peroxide Catalyst Promoted by Alkal and Alkaline Earth Metals for Green Hydrogen Generation via N2O Decomposition	
EES - D2 - P035		Kajal Pawar	Tailoring of CoMn2O4 Spinel Catalysts with Cerium for Efficient Thermal and Photochemical Selective Oxidation of Aromatic and Aliphatic Alcohols	
EES - D2 - P036		Huan Young Jung	3D Limited-Channel Photocatalysts for Non-Contact Generation of Greenhouse Gases	
EES - D2 - P037		Oluwatomi Shokunbi	Tracing Microplastics across Southwestern Nigerian Coastal Ecosystems: Insights from Fish, Water, and Sediments Interactions	
EES - D2 - P038		Davin Cooley	Continuous flow electrochemical oxidation of NADH for the in-situ generation and benedict utilization of Br2	
EES - D2 - P039		Penny Gownder	A first principles study of heterostructure Ru/C for potential use as anode in Li-ion batteries	
EES - D2 - P040		Mahmud Ahmad	Improvement in Performance and Durability of Membrane Electrode Assembly by Using Pt/CeO2 Catalytic Layered Scavenger in Proton Exchange Membrane Fuel Cell	
EES - D2 - P041		Christos Chatzigeorgidis	In solar-powered cascade setup featuring the dynamic in-situ alkali promotion over Ru/TiO2 catalyst during CO2 hydrogenation	
EES - D2 - P042		Yasmin Edalat	Alkalinity-Dependent Structural Features and Cr(VI) Adsorption of One-Pot Synthesized Co-Al Layered Double Hydroxides	
EES - D2 - P043		Naza Siddiqui	Upgrading date palm-derived organosol lignin oil into cyclohexanes for sustainable aviation fuel (SAF) via Ni-based bifunctional catalyst	
EES - D2 - P044		Hejran Tan Foye	Renovating a commercial olefins paraffin torch: quenching by turbulence for efficient CO2 capture	
EES - D2 - P045		Muhammad Usman	Electrochemical CO2 Conversion to Formic Acid Using Biuran Nanoparticle Electro Catalysts	
EES - D2 - P046		Tawaneza Bhatia	Ceramic-Based Composite Fiber Cartridges for Fluorinated Ions from Contaminated Water: A Case Study of Gmel and Shikabulo, Zimbabwe	
EES - D2 - P047		Milan Den Hesse	Consequences of Composition on Morphological and Mechanical Properties in Fully Renewable Poly(lactide)-poly(farnesene) Block Copolymers	
EES - D2 - P048		Nahid Ghanemnia	Zincium (IV) layered phosphonate-phosphate as catalysts for the valorization of glycerol	
EES - D2 - P049		Eva Mueller	Strategies for Environmentally Friendly Solvent Media	
EES - D2 - P050		Rishika Chakraborty	PEOD/PSS-PNIPAM Hydrogel-Interdigitated Metal Oxide Electrodes for Aqueous Supercapacitors	
EES - D2 - P051		Rohita Bhatnagar	Plasma-based CO2 conversion: scaling from lab to industry towards continuous CO production	
EES - D2 - P052		Lote Jurado	Highly Dispersed Cu on CeO2-AZO2 via a Novel Synthesis Route for Efficient Selective Hydrogenation of HMF	
EES - D2 - P053		Orkay	Fouling-resistant metal-organic framework monoliths for pharmaceutical water treatment	
EES - D2 - P054		Abir Hussain	An Innovative Liquid-Phase Photoluminescence Platform for Sensitive Metal Detection and Enrichment	
EES - D2 - P055		Tahir Raheed	Polyimide/nanoporous/MXene hybrid nanocomposites as greener and sustainable electrocatalysts for efficient oxygen evolution reaction	
EES - D2 - P056		Muhammad Cole	Conversion of CO2 to value-added products over a Cu and Cu modified UiO-66 catalyst	
EES - D2 - P057		Niaz Ali Khan	Charge-Assisted Monochromatization in Graphene Oxide-COF Hybrid Membranes for High-Flux Molecular Separation	
EES - D2 - P058		Sue-Faye Ng	Carbon nitride allotropes for Photoelectrocatalytic reactions	
EES - D2 - P059		Orkay Calderon	Effect of Ni loading and Fe Promotion in NiFe-Fe-C Catalysts for CO Electrolysis	
EES - D2 - P060		Lutz Burrow	Recyclable plastics from bio-based monomers	
EES - D2 - P061		Abir Hussain	Selective recovery of salbutamol/Pd using porous organic polymers containing 2,4,6-triazoluridine	
EES - D2 - P062		Marco Taddei	A water-based synthetic route to the metal-organic framework UiO-66 starting from PET derived terephthalate esters	
EES - D2 - P063		Daniel Modheri	Electrical characterization of a microbially produced, highly conductive MOF material	
EES - D2 - P064		Levin Okezie	Ni-based catalyst deactivation in the dry reforming of H2P	
EES - D2 - P065		Jim Hyung Lee	Efficient and sustainable production of calcium carbonate from oyster shell waste: A carboxylic acid-mediated green processing approach	
EES - D2 - P066		Kevin Keller	Reactivity of Silicon and Hydroxyl Peroxides with Nanoporous Iron Complexes	
EES - D2 - P067		Audrey Nkomoera	Defluorination Techniques: A comparative review	
EES - D2 - P068		Rocco Calcandrea	Diverse Recycling Pathways of Graphitic Anode Materials for Advancing Sustainable Battery Technology	
EES - D2 - P069		Dianael Betsimihy	Development and Evaluation of Homocyclic Explosive Surrogates for Donor-Charge Associations in Teritary Explosive Systems	
EES - D2 - P070		Katrin Santin	Valorisation of HDPE by pyrolysis and in-line catalytic cracking with metal-modified ZSM5 zeolite	

EES - D2 - P071	Miran Usariza	Thermodynamic assessment of the joint valorization of CO2 and waste elastics by pyrolysis and in line combined reforming for syngas production
EES - D2 - P072	Zara Cherkasova-Zhelinn	Sustainable Protocol for Direct Reuse of Platinum Group Metals from Spent Automotive Catalysts
EES - D2 - P073	Joseph Parkinson	Sustainable mechanochemical synthesis of Molybdenum and Tungsten dichalcogenides for the Hydrogen Evolution Reaction
EES - D2 - P074	David Barker	Preparation of cellulose-based adsorbents for eradication of pollutants in water



Wednesday 15th July 2026  
Congress theme:  
Energy, Environment & Sustainability

Session	Timing	Presenter	Title	Topic ID
EES - D3 - O01	10:00-10:15	Pol Vilariño	Control of Electrocatalytic Levulinic Acid Valorization: Synergistic Tuning of Catalysts, Solvents, and Temperature	Electrocatalysis
EES - D3 - O02	10:15-10:30	Teresa Andreu	Influence of Catalyst Composition and Temperature on Glycerol Electrooxidation in Continuous Flow Electrolysis	Electrocatalysis
EES - D3 - O03	10:30-10:45	Justyna Luczak	Oxygen defected NiCo spinel structures for ammonia electrooxidation reaction: An experimental and theoretical approach	Electrocatalysis
EES - D3 - O04	10:45-11:00	Matthias Vandichel	Modelling Metal Electrocatalysts as Cathodes: The Urgent Need to Look Beneath the Surface	Electrocatalysis
EES - D3 - O05	11:00-11:15	Kavin Teenakul	Enhancing Performance of Electrochemical Reactors through Pulsatile Electrolyte Flow and 3D-Printed Electrodes	Electrocatalysis
EES - D3 - O06	11:15-11:30	Irene Motta	High performance LSCs based on PMMA/oligothiophene thin films: a slot die coating approach	Electrochemistry
EES - D3 - O07	11:30-11:45	Soichi Kikkawa	Non-equilibrium electrochemical synthesis of metastable Cu-In intermetallic compounds for CO2 electroreduction	Electrocatalysis

Poster Flash	Timing	Presenter	Title	Topic ID
EES - D3 - F01	11:45	Sharma Virender	High-Valent Iron Species (FeVI, FeV, and FeIV) in Water Sustainability	
EES - D3 - F02		Chambara Lorraine	Microwave-Assisted Calcination of Spodumene Ore: A Pathway to Reduced Carbon Emissions in Lithium Extraction	
EES - D3 - F03		Lee Jaewon	Electrophilic Additive-Mediated Chemical Recycling of Trithiocarbonate-Terminated PMMA at High Polymer Concentrations	
EES - D3 - F04		Baytekin Bilge	Chemical insights into triboelectric charging of polymers and organic powders	
EES - D3 - F05		Peeters Ward	Assessment of CO2 Quality Across Capture, Liquefaction, and Storage in a Cement CCS Pilot Plant	
EES - D3 - F06		Xu Yifan	MOF-based composites as Li solid-like ionic conductors	
EES - D3 - F07		Brandi Francesco	Catalytic depolymerization of commercial grade polyurethane sponge using Ru-supported heterogeneous catalysts	
EES - D3 - F08		Itri Giulia Maria	Waste Meets Waste: Upcycling Spent Li-Ion Battery-Derived Materials into Pd-Based Catalysts for Biomass Valorization	

Poster Flash	Timing	Presenter	Title	Topic ID
EES - D3 - F09	11:45	Leon Garcia Jesús	Synergistic Thermal and Stability Effects of Al <sub>2</sub> O <sub>3</sub> -ZnO Hybrid Nanofluids in Solar Thermal Collectors	
EES - D3 - F10		Tayyebi Ahmad	Photoelectrochemical Solar Ammonia Production	
EES - D3 - F11		Said Muhammad	Tailored Organic Electrodes for Next-Generation Aqueous Zinc-Organic Batteries	
EES - D3 - F12		Salierno Giuseppe	Lignin acidolysis via a $\beta$ O4 model compound: an improvement based on heterogeneous superacid catalysis	
EES - D3 - F13		Van Leuven Hendrik	Hydrothermal pretreatment improving in-situ catalytic pyrolysis of plastic waste feedstocks	
EES - D3 - F14		Barbaoglio Claudia	Innovative heterobimetallic precursors for multifunctional fluoride materials	
EES - D3 - F15		Casadevall Serrano Carla	Novel molecular and polymersome-based systems for photocatalytic CO2 reduction, towards compartmentalized artificial photosynthesis	
EES - D3 - F16		Zhang Weizhe	Single-Layer Graphene as an Atomically Thin, Proton-Conductive Membrane for Energy and Chemical Conversion	

#### Lunch

Session	Timing	Presenter	Title	Topic ID
EES - D3 - I01	14:00-14:30	Audrey Moores	Green and sustainable nanomaterials chemistry	Nanomaterials for Sustainability
EES - D3 - O08	14:30-14:45	Ruey-An Doong	MoS <sub>2</sub> -supported nickel single-atom catalysts for the enhanced photoelectrocatalytic hydrogen production from water splitting	Nanomaterials for Sustainability
EES - D3 - O09	14:45-15:00	Simone Galliano	Maltodextrin-based electrolytes at work in safe aqueous dye-sensitized solar cells for ambient light harvesting	Nanomaterials for Sustainability
EES - D3 - O10	15:00-15:15	Christian Mark Pelicano	Boosting the Quantum Efficiency of Ionic Carbon Nitrides for Solar-Driven Fuel Synthesis	Nanomaterials for Sustainability
EES - D3 - O11	15:15-15:30	Lorenza Romagnoli	Substituting selenium for sulfur for efficient tuning of properties in BaZrS <sub>3</sub> perovskite for photovoltaic applications	Nanomaterials for Sustainability
EES - D3 - O12	15:30-15:45	Abraham Solomon Kasa	Precursor-Driven Reconfiguration of Bulk and Interface Enhances the Solar-Driven Water-Splitting Performance of Carbon Nitride Photoanode	Nanomaterials for Sustainability
EES - D3 - O13	15:45-16:00	Giulia Forghieri	An operando AP-NEXAFS study on CO <sub>2</sub> photoreduction with Cu-NPs supported by photoactive materials	Nanomaterials for Sustainability

#### Coffee break

Session	Timing	Presenter	Title	Topic ID
EES - D3 - O14	16:30-16:45	Thainara Viana Ferreira	A Green Chemistry Strategy for Rare Earth Element Recovery from Acid Mine Drainage Using Living Biomass	Green Chemistry & Circularity
EES - D3 - O15	16:45-17:00	Giorgio Grillo	Integrated Subcritical Water Extraction and Membrane/Resin Fractionation for Circular Valorization: Chestnut Wood Residues into Tannin-Based Biopolymers	Green Chemistry & Circularity
EES - D3 - O16	17:00-17:15	Lisa Royer	From Industrial Waste to Smart Windows: Circular Recovery and Upcycling of Vanadium for Advanced Thermochromic Coatings	Green Chemistry & Circularity
EES - D3 - O17	17:15-17:30	Mustapha Idris	Sustainable graphene anodes from palm kernel shell waste for waste-to-energy microbial fuel cells	Green Chemistry & Circularity
EES - D3 - O18	17:30-17:45	Attila Kovacs	Statistical entropy analysis for the evaluation of polymer complexity and circularity	Green Chemistry & Circularity
EES - D3 - O19	17:45-18:00	Roy Maas	Impact of Mixed Polymer Streams and Contaminants on Radical-Initiated Polymer Degradation	Green Chemistry & Circularity

#### Additional parallel sessions in another meeting room

Session	Timing	Presenter	Title	Topic ID
EES - D3 - O20	16:30-16:45	Debora Fabbri	Cross-regional LC-HRMS suspect and non-target screening of contaminants in rivers and aquaculture waters	Environmental Chemistry
EES - D3 - O21	16:45-17:00	Damjan Rajaković	Exploring the use of ceramic passive samplers for urban wastewater monitoring	Environmental Chemistry
EES - D3 - O22	17:00-17:15	Amila Hajdarević	Simultaneous Determination of Thirteen Antidiabetic Drugs in Wastewater Using a Novel LC-MS/MS Method	Environmental Chemistry
EES - D3 - O23	17:15-17:30	Alessandro Bollella	Integrated Analytical Strategies Supporting Risk Assessment of Emerging Contaminants in Marine Ecosystems	Environmental Chemistry
EES - D3 - O24	17:30-17:45	Roland Kallenborn	Application and integration of modern trace analytical methods for remediation and pollution emission control in sewage and drinking water treatment	Environmental Chemistry

**Posters**

EES - D3- P001	Daniela Andrei	Greener Synthetic Approaches to the Synthesis of Quinoxaline Derivatives
EES - D3- P002	Phindile Khoza	Photophysical and photocatalytic properties of BiOI nanoparticles
EES - D3- P003	Kyungsu Na	CO <sub>2</sub> Upcycling to Liquefied Petroleum Gas and Jet Fuel via an Oxide-Zeolite Catalyst Strategy
EES - D3- P004	Ajay Sharma	Controlled Autoxidation of Heavy Petroleum Residues as a Low-Cost Route to Synthesize Carbon Nanotubes
EES - D3- P005	Siwoo Park	Low-Concentration CO <sub>2</sub> Capture Using Microporous Metal-organic Frameworks
EES - D3- P006	Thiago Silva	Sustainable recovery of technology-critical elements using algae microspheers
EES - D3- P007	Nikozfar Kamyar Khaledi	Understanding the effects of cryomilling for some common thermoplastics
EES - D3- P008	Ozai Iqra Shafi	Selective Recovery of Magnesium and Calcium from RO Brine Reject
EES - D3- P009	Ola Bajouk	Unraveling the electrocatalytic performances and structural stability of Ag nanowire gas diffusion electrodes for CO <sub>2</sub> reduction
EES - D3- P010	Ward Peeters	Pilot-Scale Online Monitoring of CESAR1 Solvent Condition in a Cement CO <sub>2</sub> Capture Plant
EES - D3- P011	Paola Calza	Sustainable integrated approach for CECs removal in aquaculture: bench-scale validation of a hybrid membrane-AOP system
EES - D3- P012	Klaudia Jakubowska	Composition and efficacy of essential oils in suppressing potato sprouting
EES - D3- P013	Julia Kamińska	Comparison of the yield and chemical composition of essential oils from the seeds, leaves and straw of Apiaceae plants
EES - D3- P014	Fatima Merhi	Ni-functionalized GaAs photoelectrodes for solar-driven water splitting
EES - D3- P015	Bilge Baytekin	Contact Electrification of Some Organic Powders With Fused Aromatic Ring Structures
EES - D3- P016	Yuqiu Chen	Toward a Circular Plastic Future: Advanced Pathways for Sustainable production of PEF and rPEF
EES - D3- P017	Muzammil Hussain	Directional Charge Transport in Donor-Acceptor Covalent Organic Frameworks for enhanced Photocatalytic H <sub>2</sub> O <sub>2</sub> Production
EES - D3- P018	Pawel Gulski	Inhibition of seed germination by selected essential oils: relationship with chemical composition
EES - D3- P019	Lukka Thuyavan Yogarathinam	Predictive Chemometric Modeling of Molecular Transport in Functional Organic Solvent Nanofiltration Membranes
EES - D3- P020	Hilal Ahmad	Tailoring MXene Properties for Membrane Distillation: Experimental Validation and Theoretical Analysis
EES - D3- P021	Harapriya Behera	Multisite-CEPT Driven Electro-oxidative C(sp <sup>3</sup> )-H/O-H Cross-Coupling of 1,3-Dicarbonyls with Alcohols
EES - D3- P022	Shivani Ahlawat	Hydrogen bonding enabled C-H polarization for multi-site concerted proton electron transfer in electrochemical dimerization of β-ketoesters
EES - D3- P023	Mohammad Shah Nawaz Khan	Structure-Directed Interfacial Engineering of UiO-66-NH <sub>2</sub> Nanofillers in Thin-Film Nanocomposite Membranes for Salt and Boron Selectivity
EES - D3- P024	Muhammad Saad Khan	Hydrate Formation Kinetics and Desalination Performance of Ethylene in Saline Systems
EES - D3- P025	Romy Van Geijn	Sunlight-powered reverse water gas shift reaction catalysed by plasmonic Au/CeO <sub>2</sub> -x: the impact of size, metal loading and oxygen vacancies on the catalytic performance
EES - D3- P026	Carla Rizzo	Safe and sustainable materials as adsorbents for emerging pollutants
EES - D3- P027	Alyssa Mancini	Understanding structural and electrochemical degradation in Li-rich cathodes
EES - D3- P028	Tauqir Ahmad	Controlled Incorporation of Monoboc-Protected Amines in Polyamide Thin-Film Composite Membranes
EES - D3- P029	Wajahat Waheed Kazmi	Optimizing solvent roles in catalytic lignin liquefaction: Efficient pathways to phenolic monomers and bio-oil
EES - D3- P030	Myriam Dalu	Recovery and Regeneration of Cathode Materials via Direct Recycling
EES - D3- P031	Maria Eduarda Pereira	Advanced sorption-based recovery of rare-earth elements from secondary aqueous streams: a contribution to EU strategic autonomy and circular critical raw materials
EES - D3- P032	Gabriela Kuzma	Chemical compositions, stability and insecticidal activities of some essential oil emulsions
EES - D3- P033	Muhammad Waqas	Solvent-Free upcycling of Plastic Waste to Aromatics with Multi-Shelled Hollow Sphere
EES - D3- P034	Oussama Djorf	Gold "Self-Leaching" in Chloride-Rich Media
EES - D3- P035	Jose Javier Delgado-Marin	High-Temperature Operation of Vacuum Tube Solar Collectors Using Ionic Liquids
EES - D3- P036	Arcangelo Celeste	Synthesis-Route Effects on Competing Phase Formation in Na <sub>0.67</sub> Mn <sub>0.75</sub> Ni <sub>0.25</sub> O <sub>2</sub>
EES - D3- P037	Hocine Sifaoui	Removal of nitrogenous heteroaromatic compounds from gasoline using the deep eutectic solvent diethanolamine: glycerol.
EES - D3- P038	Manuel Alejandro Andino Enrique	Matrix Dependent Photochemical Transformation of Sulfamethoxazole in Natural and Managed Waters
EES - D3- P039	Cristiana Margarita	Deep Eutectic Solvents-enabled Closed and Open-loop Wastes Battery Recycling
EES - D3- P040	Kanchan Pawar	Scalable Fabrication of BiVO <sub>4</sub> /Bi <sub>2</sub> S <sub>3</sub> Heterostructures with Improved Photocurrent Performance for PEC Hydrogen Generation
EES - D3- P041	Marcelo Cámaras	Commercial Anion Exchange Membranes for Alkaline Water Electrolysis: Linking Performance, Stability, and Physicochemical Properties
EES - D3- P042	Vladimir Nikiforov	Is atmospheric half-life time of carbon tetrafluoride the same as it was 33 or 47 years ago?
EES - D3- P043	Ching-Shiun Chen	Ultra-Small Ru and Ni Clusters for Enhanced CO <sub>2</sub> Methanation at Ultra-Low Metal Loadings
EES - D3- P044	Nicole Ferreira	Shrimp Shell Waste as a Green Resource for Rare Earth Element Recovery
EES - D3- P045	Sharjeel Waqas	Optimization of Operating Parameters in Single-Stage Membrane Rotating Biological Contactor for Wastewater Treatment
EES - D3- P046	Clinton Watualero	Sustainable Composite Material of Layered Double Hydroxides Based on NiCo in the α-phase And Carbon Material Derived from Agricultural Waste for High-Performance Asymmetric Supercapacitors
EES - D3- P047	Nicolò Desogus	Efficient Removal of Emerging Water Contaminants using a Hybrid Hydrodynamic Cavitation and Cold Plasma Process
EES - D3- P048	Ananda Sholeh Rifky Hakim	Utilization of Coal-Derived Carbon Materials as Conductive Additives in Zinc-Ion Batteries
EES - D3- P049	Oliver Salangad	Matrix-specific partitioning of legacy and emerging PFAS in great tit (Parus major) plasma, feathers, and faeces near a fluorochemical hotspot
EES - D3- P050	Hugo Valdes	Electrochemical Dechlorination of PVC for Sustainable Materials Recovery and the Synthesis of Chlorinated Compounds
EES - D3- P051	Petra De Jongh	Using Carbon Model Supports to Understand Particle Size and Promotor Effects in CO <sub>2</sub> and CH <sub>4</sub> Conversion
EES - D3- P052	Sharmin Akther Rupa	Rational Design of Amide-Extended Tetrahedral Linkers for the Construction of Porous MOFs Targeting CO <sub>2</sub> Capture
EES - D3- P053	Yasir Abbas	Functionalized Graphene Oxide Membranes for High Flux Nanofiltration
EES - D3- P054	Zayleen Gallegos	Effect of Enzymatic Treatment on the Fock Reactivity of an Eucalyptus globulus Pulp
EES - D3- P055	Fernanda Roman	Oxidative denitrogenation using sustainable carbon nanotubes: reactive oxygen species
EES - D3- P056	Fernanda Roman	Removal of bisphenol-A by catalytic wet peroxide oxidation using sustainable carbon nanotubes
EES - D3- P057	Tatiana Kella	Toward Sustainable Aromatics Production: Zeolite-Catalyzed Conversion of Biomass- and CO <sub>2</sub> -Derived Alcohols
EES - D3- P058	Muhammad Abu Bakar Siddique	Graphene based electroconductive membranes for sustainable energy storage and water treatment applications
EES - D3- P059	Avihay Ben Shitrit	Operando Optical Imaging of Phase Transition During Charging/Discharging of Nickel (Oxy)hydroxide Electrodes
EES - D3- P060	Samantha Ndlovu	Enhancing dye-sensitized solar cell performance by introducing Fe/Co into the B-site of Sr <sub>0.7</sub> Sm <sub>0.3</sub> B <sub>0.2</sub> 89 perovskite photoanodes
EES - D3- P061	Syed Muhammad Shakib Kazmi	Electrochemical approach towards the Total Synthesis of (-)-Colchicine
EES - D3- P062	Ghulam Asghar	Synthesis and Catalytic Evaluation of NiO-Al <sub>2</sub> O <sub>3</sub> Catalyst for Steam Methane Reforming
EES - D3- P063	Dahiru Lawal	Air-Assisted Air Gap Membrane Distillation Using In-Loop and External Vapor Recovery for Enhanced Flux and Scaling and Fouling Mitigation
EES - D3- P064	Bienvenu Kwizera	Nano calcium driven degradation of dichlorodiphenyltrichloroethane in soil: Efficiency assessment and underlying mechanisms
EES - D3- P065	Dáša Drenčáková	Non-stoichiometric CuAgSe doped with Zn or Fe: mechanochemical synthesis and thermoelectric properties
EES - D3- P066	Anej Blazic	Magnetic heating-assisted methanol synthesis from CO <sub>2</sub> and H <sub>2</sub> for Power-to-X applications
EES - D3- P067	Ngunjoh Emmanuel Chi	Biochar-Amended Soil for Persistent Organic Pollutant Mitigation in Food Crops: Evaluating Bioavailability and Nutritional Impact
EES - D3- P068	Aleksandra Zamljen	Water-Induced Structural Deactivation of Zeolite-Supported Magnesium Chloride and Its Effect on Ammonia Sorption Stability
EES - D3- P069	Hyeseon Park	Redox Electrolyte-Assisted Hybrid Energy Storage with Optimized Cathode/Anode Ratio of Cobalt Hexacyanoferrate and Activated Carbon
EES - D3- P070	Changkai Shan	Sustainable Amino-Acid-Derived DASAs for Green Molecular Electronics
EES - D3- P071	Darsi Rambabu	An Electrically Conducting Alkali-Ion Metal-Organic Framework Cathodes
EES - D3- P072	Aqeel Ahmad	Synthesis and Evaluation of Porous Organic Polymers for CO <sub>2</sub> Capture
EES - D3- P073	Stefano Contena	Self-assembling photoacidic systems featuring merocyanine/spiropryan amphiphiles
EES - D3- P074	Akinyinka Akinnusotu	Assessment of some Organochlorine Pesticides and Toxic heavy metals in the road dust from A metropolitan City in Nigeria: A case Study



Antwerp, Belgium

# 10th EuChemS Chemistry Congress

euchems2026.eu

12 - 16 July 2026



Thursday 16th July 2026  
Congress theme:  
Energy, Environment & Sustainability

Session	Timing	Presenter	Title	Topic ID
EES - D4 - O01	10:00-10:15	Bing Bai	Enhancing Low-Temperature CO2 Methanation via Nickel Electronic Structure Engineering	CO2 Capture & Utilisation
EES - D4 - O02	10:15-10:30	Francesc Sastre	Solar-driven CO2 to methanol production	CO2 Capture & Utilisation
EES - D4 - O03	10:30-10:45	Jose Javier Delgado-Marin	Engineering Biopolymeric Adsorbents with Ionic Liquids for Efficient CO <sub>2</sub> Capture	CO2 Capture & Utilisation
EES - D4 - O04	10:45-11:00	Sung-Fu Hung	Model Thiophene-Decorated Nickel Porphyrins for Tandem CO2 Reduction	CO2 Capture & Utilisation
EES - D4 - O05	11:00-11:15	Jiaqi Feng	Research on Electrocatalyst Design and Electrolyzer Scaling for Efficient CO <sub>2</sub> Electroreduction	CO2 Capture & Utilisation
EES - D4 - O06	11:15-11:30	Natalia Maria Mazur	Benchmarking Commercial Anion Exchange Membranes for CO2 Electroreduction to Ethylene	CO2 Capture & Utilisation
EES - D4 - O07	11:30-11:45	Thijs Van Thillo	Microcrack-engineered gas diffusion layers to mitigate flooding in Zero-Gap CO2 electrolyzers for CO production	CO2 Capture & Utilisation
<b>POSTER FLASH 11:45</b>				
EES - D4 - F01		Markowski Robert	Amorphous Coordination Polymers for Versatile Mg <sup>2+</sup> , Ca <sup>2+</sup> , Sr <sup>2+</sup> , Ba <sup>2+</sup> , and Zn <sup>2+</sup> Cation Storage	
EES - D4 - F02		Kulagova Alice	Ammonia photoxidation using Ru catalyst anchored on C3N4 nanoparticles	
EES - D4 - F03		Monir Mohammad	A Systematic Computational Screening for Discovery of Low-Cost, Sustainable Thermochemical Heat Storage Materials	
EES - D4 - F04		Vasudevarao Bakuru	A hexaanionic carboxyphenolate framework for high energy alkali cation storage	
EES - D4 - F05		Bonitz Lena	Polyhalite Stability in Salt Solutions at 25 °C : A Long-Term Investigation	
EES - D4 - F06		Faria Joaquim	Light-matter interactions in carbon nitride-based photocatalysis	
EES - D4 - F07		Ghosh Chandrika	Transformation of PET-derived 1,4-benzenedimethanol to make useful alcohols	
EES - D4 - F08		Andueza Félix	Heavy metals in soils of the Chilean scientific station Julio Escudero in Antarctica	
<b>POSTER FLASH 11:45</b>				
In another meeting room				
EES - D4 - F09		Wankar Shashwati	Dual Ion-Imprinted Chitosan-PVA-Methyl Cellulose Hydrogel microbeads for selective capture of Cr (VI) and Hg (II) from aqueous matrices	
EES - D4 - F10		Ramackers Augustin	Bimetallic Anionic Organic Frameworks with Solid-State Cation Conduction for Charge Storage Applications	
EES - D4 - F11		Buchinger Richard	Enhancing Faradaic Efficiency in Electrochemical CO2 reduction via Fermentation-derived Acid Intermediates	
EES - D4 - F12		Aqegnehu Seqenet Dagmawi	Green and Wearable Energy Storage: Fully Sustainable Solid-State Supercapacitors Using Pectin Derived Laser Oxidized Graphene and Pectin Electrolyte Systems	
EES - D4 - F13		Kumar Sihag Anil	Scalable Electrodeposited Bismuth Gas Diffusion Electrodes for Selective CO <sub>2</sub> -to-Formate Electrolysis in Flow Cell	
EES - D4 - F14		Gaur Ashish	Acid Corrosion Induced Lattice Strain in the Multimetallic LDH Structure for the Electrocatalytic Water Splitting	
EES - D4 - F15		Al Shbib Ravane	Sustainable CeO <sub>2</sub> /CoFe <sub>2</sub> O <sub>4</sub> Catalysts for the Total Oxidation of Mixed VOC-CO Emissions: From Activity to Mechanism	
EES - D4 - F16		Azizi Jafar	Atomic-scale mechanisms of alkali-metal adsorption and clustering on graphitic surfaces	
<b>Lunch</b>				
<b>EES - D4 - I01 14:00-14:30</b>				
Catalysis and sustainability for atom to planet				
EES - D4 - O08	14:30-14:45	Michael Reid	Electrochemical Hydrogenation Using Dispersed Catalytic Particles	Green Chemistry & Circularity
EES - D4 - O09	14:45-15:00	Haoliang Yan	Development of Catalyst Systems for Polyethylene Recycling by Hydrogenolysis	Green Chemistry & Circularity
EES - D4 - O10	15:00-15:15	Zhenlei Zhang	Strategic Catalytic Approaches for the Selective Depolymerization and Targeted Defunctionalization of Lignin	Green Chemistry & Circularity
EES - D4 - O11	15:15-15:30	Devanshu Sajwan	Establishing Structure-Acidity-Performance Relationships in Zeolite Catalyzed Lignin Pyrolysis of Aromatics Production	Green Chemistry & Circularity
<b>Posters</b>				
EES - D4- P001	Dora Balen	High-temperature structural and microstructural evolution of Ni- and Mn-doped LaCoO <sub>3</sub> perovskites		
EES - D4- P002	Emilia Kazek	Treatment of poly(vinyl chloride) and study of its pyrolysis outcomes		
EES - D4- P003	Eirini Kanellou	Sonochemical synthesis of Ag-decorated TiO <sub>2</sub> and PANI/TiO <sub>2</sub> composites for enhanced photocatalytic activity		
EES - D4- P004	Naveen Kosar	Atomistic Insights into Second-Row Transition Metal-Modified Anionic Boron Nanomaterials as Advanced Catalysts for Water Splitting and Green Energy Generation		
EES - D4- P005	Markus Grosse-Ophoff	Pathways to a Sustainable Transformation of the Chemical Industry		
EES - D4- P006	Safvan Akram Khan	High Performance Steam Methane Reforming via Tuned Metal Support Interactions in NiMg-Yb <sub>2</sub> O <sub>7</sub> sesquioxide: Activity, Stability, and Coke Resistance		
EES - D4- P007	Hagen Fiebig	Phase Stability and Thermodynamic Properties of Magnesium Carbonates in Salt Solutions		
EES - D4- P008	Himanshu Chauhan	Development and Characterization of Covalent Organic Frameworks and Metal Organic Frameworks for Efficient CO <sub>2</sub> Capture		
EES - D4- P009	Shahid Ali	MXene-Promoted Ni-Based Bimetallic Catalysts on CeO <sub>2</sub> -ZrO <sub>2</sub> for Efficient Hydrogen Production via Steam Methane Reforming		
EES - D4- P010	M.S.V. Naga Jyothi	Rapid Uranium Sequestration by Biomass-derived Porous Carbon and insights into Electrochemical Valorization of Uranium-Loaded Spent Carbon		
EES - D4- P011	Smmain Carmilia Nafissa	Removal of metallic fragments from waste generated during photovoltaic cell manufacturing		
EES - D4- P012	Tia Ansell	Identifying complexing agents for the selective binding of Pb <sup>2+</sup> released during perovskite solar cell degradation		
EES - D4- P013	Timothy Vadas	Comparison of hydrogel coated on selective solid-state electrodes for nitrate measurements in soil		
EES - D4- P014	Abdul Zeeshan Khan	Revealing Interfacial Kinetics of Defect-Mediated Hole Transport Lanthanum Oxide Layer at Hematite Photoanode for Oxygen Evolution Reaction		
EES - D4- P015	Daouia Inorachen	Natural Algerian Diatomite as a Low-Cost Adsorbent for Bezacryl Yellow Dye Removal		
EES - D4- P016	Maria Cristina Arena	Design and Operation of Fluorinated Gas Recovery Systems at the CERN Large Hadron Collider		
EES - D4- P017	Lucia Viccaino-Anaya	Enhancing Selectivity of Urea Oxidation Reaction by Engineered Carbon Support Materials for Hydrogen Production		
EES - D4- P018	Paula Barbosa	Silk Fibroin Solid Electrolyte Membranes for Sustainable Sodium-Ion Batteries		
EES - D4- P019	Sharad Kumar Sachan	Monoatomic copper-anchored UiO-66-NH <sub>2</sub> as a mechanistically defined Lewis acid catalyst for CO <sub>2</sub> cycloaddition and enantioselective Strecker synthesis		

EES - D4- P020	Bezayet Tesfaye	Scale-up, shaping, and catalytic performance of MIL-100(Fe) in propane oxidation
EES - D4- P021	Cláudia Lopes	Clay-based platforms for REE recovery: selective adsorption, regeneration and magnetic separation
EES - D4- P022	Jose Luis Diaz De Tuesta	Activated carbon production from exhaustive olive pomace: simulation process and autothermal pyrolysis
EES - D4- P023	Arda Altan	Synthesis and Characterization of Lithium Metal Phosphates in Various Solvents
EES - D4- P024	Arindam Mal	Polyimide-linked Hexaazatriphenylene-based Porous Organic Polymer with Multiple Redox-Active Sites as a High-Capacity Organic Cathode for Lithium-Ion Batteries
EES - D4- P025	Anamika Res. Scholar, Chemical Engg. & Tech., IIT(BHU)	Integrated zeolite membrane and Cu-ZnO-Al <sub>2</sub> O <sub>3</sub> catalyst for intensified CO <sub>2</sub> -to-methanol conversion
EES - D4- P026	Abhishek Anand	Performance enhancement of nickel based al <sub>2</sub> O <sub>3</sub> catalyst for efficient hydrogen production through methane steam reforming
EES - D4- P027	Simone Pellegrino	New Frontiers in Fenton Chemistry: Integrating Disinfection and Decontamination Through Oxidation by Performic Acid
EES - D4- P028	William De Rezende Locatel	Kinetic Analysis and Multiscale Hydrolysis of Reinforced PET and PBT Plastics: Innovative Process Configurations for Enhanced Monomer Recovery
EES - D4- P029	Astha Linda	Solvent-free synthesis of hydroxyl imidoyl chloride under mechanochemical conditions.
EES - D4- P030	Kyuna-Duk Zoh	Assessing PFAS Fingerprints and Precursor Burden in AFFF-Impacted Waters and Sediments
EES - D4- P031	Daniela Barrueta	Surface Urban Heat Island and Land Use Drivers in 2024: Monthly Landsat 8 Evidence for Sustainable Urban Mitigation in Toluca Metropolitan Area, Mexico
EES - D4- P032	Binash Imteyaz	Investigation of a humidification dehumidification cycle powered by integrated carbon capture and ammonia synthesis cycles
EES - D4- P033	Muhammad Faizan	Renewable Electrolysis of Biomass and CO <sub>2</sub> Valorization into Value-Added Products
EES - D4- P034	Naimat Ullah	Electroreduction of CO <sub>2</sub> to C1 and C2 products on Dual Active Sites
EES - D4- P035	Arshad Hussain	Electrospun Polybenzimidazole Separator with Superior Performance for Zinc Ion Battery
EES - D4- P036	Naq Abhiit	Efficient Dissolution and Selective Recovery of Gold from Electronic Waste Using a Recyclable Ionic Medium
EES - D4- P037	Jayasekara Neranjan	Comparative Assessment of Microplastic Accumulation in Upper Catena Fisheries of the Kothmale Reservoir, Sri Lanka
EES - D4- P038	Essalhi Mohamed	Post-Synthesis Modification of Covalent Organic Framework for Enhanced Direct Air Capture of CO <sub>2</sub>
EES - D4- P039	Fathi Ahmed	Development of Fluorene-based Benzoxazine-linked Porous Organic Polymers as Efficient Electrodes for Energy Storage
EES - D4- P040	Chun Sangeun	Tailored-Shell Hollow TiO <sub>2</sub> Spheres with Reduced Tortuosity for Fast-Charging Anode
EES - D4- P041	Tayyab Muhammad	Regulating redox sites for photocatalytic phenylcarbinol conversion and H <sub>2</sub> production on lattice-matched Schottky junction
EES - D4- P042	Jillani Shehzada Muhammad Saïid	Optimizing Membrane Supports to Enhance Water Purification Performance
EES - D4- P043	Elsayed Mohamed	Enhanced Photocatalytic Hydrogen Evolution via Broad Visible-Light Harvesting in g-C <sub>3</sub> N <sub>4</sub> /Polymer Heterostructures
EES - D4- P044	Ansari Faiz	Cultivation of microalgae Chlorella kessleri for enhancing biomass, protein production, and CO <sub>2</sub> sequestration
EES - D4- P045	Manzoor Sumaira	Designing of Molybdenum sulfide decorated on Biomass-derived Carbon Dots as a Robust Electrocatalyst for Water Oxidation
EES - D4- P046	Holthuijsen Matthijs	Revealing battery interface chemistry with spectroscopy
EES - D4- P047	Musa Ahmed Fouad	Simultaneous Top-Bottom Surface Passivation by 2D Metal Triflate Ionic COFs for High-Performance Perovskite Solar Cells
EES - D4- P048	Bayazit Şahika Sena	Investigation of MOF Derived NASICONs for Capacitive Deionization Application
EES - D4- P049	Nikiforov Vladimir	Proposal for restriction on difluoromethylene substances aka "universal PFAS restriction": chemical analysis
EES - D4- P050	Kim Do Hwan	Electronic Structure Engineering via Atomic W Doping in NiO/Cr <sub>2</sub> S <sub>3</sub> Nanotube Heterostructures for Enhanced Overall Water Splitting
EES - D4- P051	Kerkez Kuyumcu Özge	Ti/Fe-Based MOF Photocatalysts for Efficient Solar-Driven Dye Removal
EES - D4- P052	Mihet Maria	Fine-tuning the Supercapacitor's performance with EPR spectroscopy
EES - D4- P053	Aydin Yasar Andelib	Valorisation of waste tea leaves and egg shells in carbon nanodot synthesis
EES - D4- P054	Khatun Rubina	Enhanced Dry Reforming over Ni <sub>2</sub> La <sub>2</sub> -XCe <sub>2</sub> O <sub>7</sub> Catalysts: Insights into the Promotional Effect of Ca, Sr and Ba promoter
EES - D4- P055	Nenaroo Sarvar Hussain	Optimal Operation of Grid-Connected PV Using Multi-Energy Storage Systems
EES - D4- P056	Piqot Corentin	Bioinspired catalysts for photoelectrochemical solar energy conversion
EES - D4- P057	Ferraz Gabriel	Atmospheric microplastics in a Brazilian elementary school and true-to-life PET-associated internalization and mitochondrial dysfunction in lung-relevant models
EES - D4- P058	Hakami Rabab	Comparative Analysis and Kinetic Modeling of Marbofloxacin Degradation via Electro-Fenton and Biodegradation Optimization
EES - D4- P059	Wang Shanjiang	Electrospun Self-Floating Fibrous Membranes for Sustainable Interfacial Photothermal Catalysis in Environmental Applications
EES - D4- P060	Rawat Ashutosh	The role of promoters in enhancing hydrogen production during catalytic decomposition of methane
EES - D4- P061	Napier Rachel	Optimising reaction efficiency with surfactants
EES - D4- P062	Singh Vishal	Ultrasound-Initiated Solvent-Free Synthesis of Thioamides via In Situ Amine Generation and C-S Bond Formation Using Lawesson's Reagent
EES - D4- P063	Ahmed Shakeel	Toward Sustainable Energy Systems: Ni-Doped SnS Anchored on MXene for Efficient Water Splitting Electrocatalysis*
EES - D4- P064	Gilleece Grainne	Graphene Quantum Dot-Based Nanostructured Electrodes For Advanced Sodium Ion Batteries
EES - D4- P065	Ahmed Sheraz	Harnessing Na-induced electronic-structural coupling for durable CO <sub>2</sub> hydrogenation
EES - D4- P066	Aldhafeeri Thamer	Characterization of Saudi zeolite clinoptilolite-chitosan biopolymer composites for heavy metals adsorption from aqueous systems
EES - D4- P067	Chen Qi	Revealing the Extraction and Coordination Behavior of Novel Cyclohexyl o-oxylamides ligand toward Pu(IV)
EES - D4- P068	Alsultan Abdullah	Energy-Efficient and Sustainable Water Desalination Using Flow Electrode Deionization with Enhanced Charge and Ion Transfer
EES - D4- P069	Moreira Daniela	New composites materials of corn cob residues and a biobased adhesive
EES - D4- P070	Yan Taihong	Selective Extraction of Plutonium(IV) by Novel Diphenylpyridine Diamide Extractants
EES - D4- P071	Wang Wentao	A Green and Efficient Aqueous LLPS Platform for Metal Ion Separation
EES - D4- P072	Wong Ping Keung	Green Extractive Desalination with Designer Green Solvents for Freshwater Production