



European Materials Research Society

# 2026 Spring Meeting

May 25 - 29  
Strasbourg Convention Centre

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## SYMPOSIUM F

Engineered nanomaterials for energy and environment: from synthesis  
to applications

Oral sessions : [SCHWEITZER - GROUND FLOOR](#)

Poster sessions : [ETOILE - FIRST FLOOR](#)

*Symposium Organizers:*

[Alberto VOMIERO](#) (Main organizer), Luleå University of Technology, Sweden

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Monday May 25  
F01 Session 1

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08:30	1000	Synthesis of Nano Materials using Liquid Metals in Energy and Environmental Engineering <b>KALANTAR-ZADEH Kourosh (Invited)</b>
08:50	2121	Low dimensional Metal Oxide Compounds for Hydrogen Production <b>CHUA Daniel (Invited)</b>
09:10	667	Active Sites Formation in the Co-Phthalocyanine Functionalized Carbons for Hydrogen Evolution Reaction and Oxygen Reduction Reaction: influence of pyrolysis conditions <b>SANTORO Carlo (Invited)</b>
09:30	390	Design of nanostructured materials based on non-critical elements as new electrocatalyst for hydrogen production via water splitting <b>PICHON Benoit</b>
09:45	2238	Plasma-Functionalized Carbon Electrodes for Vanadium Redox Flow Batteries: A study on the surface chemistry and electrode fouling <b>ALEM Ahmad</b>

Monday May 25  
F02 Session 2

[View session abstracts](#)

10:30	1976	Addressing raw materials criticality by navigating the experimental parameters space: the paradigmatic case of spinel high entropy oxides <b>GROSS Silvia (Invited)</b>
10:50	1996	Plasmonic Copper nanoparticles coupled to ZnO and ZnO/Cu <sub>2</sub> O junctions for photodetection based on injection of hot carriers <b>HORWAT David (Invited)</b>
11:10	347	347 Low-cost and efficient asymmetric non-fullerene electron acceptors (NFAs) for solar cells <b>HARVEY Pierre D. (Invited)</b>
11:30	1028	Microstructure-driven electron modulation of MXene supported MoS <sub>2</sub> for boosting efficient polysulfide redox conversion in lithium sulfur battery <b>HUANG Qilin</b>
11:45	469	Machine Learning-Guided Discovery of Bi <sub>2</sub> OClBr Photocatalysts for Pollutant Degradation <b>FLORES-RAMIREZ Daniel</b>

Monday May 25  
F03 Session 3

[View session abstracts](#)

14:30	3386	Sensing with Low-Dimensional Nanostructures: Supramolecular Chemistry as a Game-Changer <b>SAMORI Paolo (Invited)</b>
14:50	3219	Nanostructured and Printed Thermoelectric Materials for Flexible Sensing and Wireless Energy Harvesting <b>PEREIRA André (Invited)</b>
15:10	543	Gasochromic Tungsten Oxide Sensor for Hydrogen Detection in Natural Gas <b>Martucci Alessandro (Invited)</b>
15:30	608	Single Cu Atom Sites on Co <sub>3</sub> O <sub>4</sub> Activate Interfacial Oxygen for Enhanced Reactivity and Selective Gas Sensing at Low Temperature <b>SHIN Hamin</b>
15:45	373	Plasma-Electrified Synthesis of Amino Acid-Derived Graphene Quantum Dots as Environmental Pollutants Nanosensors <b>WU Shannon</b>

Monday May 25  
F04 Joint Session F/X

[View session abstracts](#)

16:30	1000	New challenges for cultural heritage preservation facing the climate crisis <b>PALLOT FROSSARD Isabelle(Invited)</b>
17:00	3422	Energy challenges from a materials perspective <b>ROSEI Federico (Invited)</b>

Monday May 25  
FP01 Poster session 1

[View session abstracts](#)

16:30	02_1053	Entropy-Engineered Multi-Metallic MOFs Unlock High-Performance Ammonium-Ion Storage <b>PALANI Barathi</b>
16:30	03_1055	A New Lattice-Engineering Strategy for CO <sub>2</sub> -valorization: The Thermal Stimulated Polarization Treatment <b>SANS Jordi</b>
16:30	04_1063	Structure-Dependent Carbonation Pathways of Bi-Based Oxides under Ambient Conditions: From Topochemical Exchange to Surface-Mediated Conversion <b>ZHE-HAO Lin</b>

16:30 05\_1069 Superb storage and energy saving separation of hydrocarbon gases in boron nitride nanosheets via a mechanochemical process  
**MATETI Srikanth**

16:30 06\_1071 boron nitride nanosheets (BNNS) and their applications  
**MATETI Srikanth**

16:30 07\_1072 Mechanochemistry-Enabled Gas Storage and Separation: Extending Solid-State Design Principles to Hydrogen Storage  
**MATETI Srikanth**

16:30 08\_1087 Nanoengineered LaNiO<sub>3</sub> Perovskite for Enhanced Solar Hydrogen Production  
**PAMU Sri Himaja**

16:30 10\_1107 High Performance Room-Temperature Ethanol Gas Sensing Using MoS<sub>2</sub>/WO<sub>3</sub> Heterostructured Nanocomposites  
**ZIMBA Vishakha**

16:30 11\_1117 Overcoming cathodic salt precipitation with ammonia treated phosphides for sustainable seawater electrolysis  
**NETTEM Vasundhara**

16:30 12\_1196 Metal and alloy catalysts for CH<sub>4</sub> pyrolysis: first-principle modelling and simulation  
**MATAS Martin**

16:30 13\_1202 Engineering of CeO<sub>2</sub>-WO<sub>3</sub> interfaces composites for H<sub>2</sub> production through solar photoreforming  
**ARMELI IAPICHINO Maria Teresa**

16:30 14\_1209 Microfabricated Silicon Sensors Functionalized with Graphene-based Nanozymes for Sensitive Food Quality Monitoring  
**DINU Livia Alexandra**

16:30 15\_1240 Hierarchically ordered multicomponent porous materials for efficient HER electrocatalysis and CO<sub>2</sub> capture  
**XIA Chonghan**

16:30 16\_1246 Glycerol Conversion to Lactate over Pt/Ce-ZrO<sub>2</sub> Catalysts: Influence of Support Doping on Selectivity and Stability  
**CHANDGUDE Macchindra Gulab**

16:30 17\_1292 Flexible Na-ion Battery for Bioresorbable Devices  
**HAMMOUD Hussien**

16:30 18\_1312 Natural Fruit Extract as a Selective Optical Sensor for Iron Ions in Water  
**ROBERT Berly**

16:30 19\_1350 Dye-sensitized photoanode for visible light driven photoelectrochemical water splitting  
**WATANABE Motonori**

16:30 20\_1356 Electronic and Chemical Sensitization Induced by Surface Functionalization of SnO Nanobelt Sensors  
**ORLANDI Marcelo**

16:30 21\_1385 Rational Design of Lewis Acid-Base Dual-Doped Graphene via Sonocavitation Strategy: Electronic Modulation for Ambient C-N Coupling  
**Kim Sungtae**

16:30 22\_1397 Understanding ORR Durability in Pt-Based Alloy Nanoparticles through AI-Assisted Multiscale Modeling  
**SEO Min Ho**

16:30 23\_1398 Unveiling the Transition of MoC Nanocluster to Mo Single-Atom Catalysts Derived from Craft Lignin for Enhanced Oxygen Reduction Reaction  
**PARK Junbeom**

16:30 24\_1399 Atomic-level structural control for high-performance hydrogen evolution electrocatalysts in anion exchange membrane water electrolysis  
**JIN Song**

16:30 25\_14 Pseudocapacitive Mechanism Insights in Molybdenum Oxynitride Nanostructures Reactively Sputtered over Stainless-Steel Mesh Towards All-Solid-State Flexible Supercapacitor Application  
**RANJAN Bhanu**

16:30 26\_141 Eco-Friendly Hybrid Materials for Sustainable Wastewater Treatment: Combining Advanced Processes for Efficient Removal of Contaminants  
**BAALOUJ Oussama**

16:30 27\_1413 Electroreduction of HKUST-1 for electrochemical CO<sub>2</sub> reduction  
**LIN Huangang**

16:30 28\_1434 Rapid and Stable Removal of Pb<sup>2+</sup> Using a Novel AC-CTS-EDTA Composite Adsorbent  
**GE Jingrong**

16:30 29\_1482 Solvent Engineered Bismuth-based Halide Perovskites for Photocatalytic CO<sub>2</sub> Reduction  
**HUANG Suchen**

16:30 30\_1550 Upcycled PET Nanofibres Decorated with In-Situ Ag Nanodots as Breathable, Antibacterial, and Self-Charging Air Filters  
**THAKUR Bhavesh**

16:30 31\_1583 Influence of High Energy Ball Milling on hydrogen absorption of Mg Alloy Catalyzed with Titanium and Carbon Nanotubes for hydrogen storage applications  
**HUSSEIN Mohamed**

16:30 32\_1587 Immobilizing molecular redox mediators for the oxygen evolution reaction using self-assembled monolayers  
**GHARBI Samar**

16:30 33\_1627 Medium-Controlled Pulsed Laser Ablation Formation of High-Entropy Alloy Nanoparticles for Enhanced Bi-functional Water-Splitting Performance  
**MAHDAVI Hossein**

16:30 34\_1629 Fast Proton Transport via Interlayer Nanochannels in HNb<sub>3</sub>O<sub>8</sub> Nanosheets  
**YUJI Asahi**

16:30 35\_1630 Synthesis of Nanocrystalline Tungsten Carbide and Influence of Stacking Faults in Electrocatalysis  
**HILEY Craig**

16:30 36\_1647 Synthesis and Characterization of a New Material Based on PET Aminolysis Product and MXenes  
**MOCANU Alexandra**

16:30 37\_1649 Covalently Locked Donor-Acceptor Polymer Nanoparticles Enable Efficient, Stable and Reproducible Photocatalytic Hydrogen Evolution  
**HOLMES Alexandre**

16:30 38\_1690 Predicting hydrogen production capacity of SrTi<sub>0.5</sub>Mn<sub>0.5</sub>O<sub>3-d</sub> thermo-chemical water splitter starting from first principles  
**BEDAIWY Maha**

16:30 40\_1738 From Crystal Growth to Leaf Uptake: Hydroxyapatite Nanoparticles for Foliar Phosphorus Delivery  
**COSKUN Elif**

16:30 41\_1777 Crystal facet engineering of anatase TiO<sub>2</sub> nanocrystals: Correlating structural evolution with photocatalytic efficiency towards malachite green and bisphenol-A  
**DAS Piyali**

16:30 42\_1785 Development of sensor for Hydrogen (H<sub>2</sub>) monitoring: the case of Graphene/Metal nanoparticle-based nanocomposites for sensitivity enhancement  
**NDIAYE Amadou**

16:30 43\_1797 Microporous Water as Electrolyte for Improved Gas Evolution during Water Electrolysis for Hydrogen Production  
**BILDAN Denise Margarete**

16:30 44\_1809 Bandgap Engineering via Temporal Control of Supramolecular Order for Enhanced Photocatalytic Activity in Semiconducting Polymer Nanoparticles  
**NOGALES RUIZ Aurora**

16:30 45\_1828 Controlled Low-Temperature Fabrication of Vanadium Oxides Thin Films  
**BASSO Maria**

16:30 46\_1853 P-modified g-C<sub>3</sub>N<sub>4</sub> for solar-driven photocatalytic H<sub>2</sub>O<sub>2</sub> synthesis  
**STEPHEN Treesa**

16:30 47\_1860 Selective covalent organic frameworks for transition metal ions capturing under external electrical force in capacitive deionization  
**SIEKIERKA Anna**

16:30 48\_189 Characterization of Vertically Coupled InAs Quantum Dots with GaAs and GaAsSb Spacer Layers  
**ZEKRI Atef**

16:30 49\_1895 Nano/meso porous-CN<sub>x</sub> coating deposited by magnetron plasma enhanced CVD: towards practical implementation as a supporter of Pt nanoparticles for cathode catalyst in electrolyzers  
**NAZAROV Oleksiy**

16:30 50\_1897 Tuning the optical properties of plasmon-enhanced TiO<sub>2</sub>-based catalysts for photocatalytic hydrogen evolution  
**GOETZ Selina**

16:30 52\_1914 Au nanoparticle-decorated TiO<sub>2</sub> nanowires for environmental remediation  
**ZIMBONE Massimo**

16:30 53\_1936 Insights into the relationship between crystal structure and gas-sensing performance of tungsten trioxide at room temperature  
**PALMA João Victor**

16:30 54\_1940 Hybrid mesoporous materials for environment: from the synthesis of functional hydrophilic block copolymers to applications in pollution control  
**JELEFF Maya**

16:30 55\_204 Facile Electrodeposition of Mesoporous Metal Tellurides MTe<sub>2</sub> (M = Co, Ag, Au, Pd) for Sustainable Energy Applications  
**SHARMA Ankit**

16:30 56\_242 Structure-Performance Relationships in Ni-Mo Catalysts for Dry Reforming of Methane  
**KARLUK Azimet**

16:30 57\_248 Cation Substituted Entropy Driven Cu-Mn-Zn-Cr-O Metal Oxide for Efficient Seawater Splitting and Hybrid Supercapacitors  
**SIVAGURU Gokul**

16:30 58\_287 Pollutant Removal With Adsorption Performance of Dwarf Palm (*Chamaerops humilis*) Leaves: Effect of Chemical Modification  
**BALÇIK Cigdem**

16:30 59\_319 Optimization of the Specific Absorption Rate of Mn-Zn Ferrite Nanoparticles for Spinheat Technology  
**WANG Jiaojiao**

16:30 60\_326 Exploring binary-alloyed RuO<sub>2</sub> for enhanced activity and stability under acidic OER  
**SO Soonsung**

16:30 61\_376 Principles for the Rational Design of Microwave Catalysts toward Carbon Neutrality  
**KISHIMOTO Fuminao**

16:30 62\_381 Design a synthetic polymer interphase via initiated chemical vapor deposition (iCVD) for advanced rechargeable batteries  
**LEE Jinhong**

16:30 63\_383 MoS<sub>2</sub>/PANI composite-based photoluminescence sensor for selective sensing of dimethoate pesticide  
**PANDA Dhananjaya**

16:30 64\_418 Inter-Sublattice Random Pt(Co,Ni) Alloy Catalysts: Decoupling Structural Order from Chemical Complexity for Oxygen Reduction  
**PARK Yeji**

16:30 65\_438 Quantum-Driven Charge Enhancement in Polymer-Based Borophene/Graphene Composite Triboelectric Nanogenerator for Sensitive Detection Applications  
**KUMAR Shailendra**

16:30 66\_442 Defect-Engineered Ceria-Supported Ru Catalysts for Enhanced Ammonia to Hydrogen Conversion  
**Saini Pallavi**

16:30 67\_456 Template-Driven Nanocomposite Electrolytes for Enhanced Ionic Conductivity in Solid Oxide Fuel Cells  
**BORODIANSKIY Konstantin**

16:30 68\_467 Processing-Induced Defects as a Route to High-Efficiency TiO<sub>2</sub> Photocatalysts  
**RAJ Anupam**

16:30 69\_476 Self-supported polypyrrole capped CuFe-LDH/NF for over 1000 h corrosion-resistant seawater electrolysis  
**BIBI Nafeesa**

16:30 70\_477 Stabilizing Fluorine incorporated NiFe-LDH for Real Seawater Electrolysis via Surface Passivation and Structural Modification  
**KHAN Ibrahim**

16:30 71\_532 Nanoparticle Size and Concentration: Impact on Growth and Transpiration in Plants  
**GARCIA Sheena Anne Henson**

16:30 72\_585 Aluminum Cocatalyst Modified Porous Oxygen-Functionalized g-C<sub>3</sub>N<sub>4</sub> for Noble-Metal-Free Photocatalytic Hydrogen Evolution  
**ALSHARAEH Edreese Housni**

16:30 73\_650 Vacuum-free liquid-metal-printed two-dimensional semiconducting oxides: the effect of annealing  
**SYED Nitu**

16:30	74_67	Influence of Deposition Technique on the Charge Transport in TQ1 Polymer-Based OFET <b>SINGH Pritika</b>
16:30	75_746	Nanostructured Catalytic Filter-Integrated Sensor with Porous Nanotube Arrays for Selective NO <sub>2</sub> Detection <b>ZHANG Weiqi</b>
16:30	76_80	Tuning the Electronic Structure of Cobalt Single-Atom Catalysts via In-Plane and Axial Coordination to Enhance H <sub>2</sub> O <sub>2</sub> Production <b>ZHANG Wenjun</b>
16:30	77_845	Probing the Intrinsic Reactivity of Platinum Single Atoms for Hydrogen Evolution <b>KIM Sohui</b>
16:30	78_857	Design, Fabrication, and Characterization of Tungsten Oxide-Based SAW Gas Sensor for Room Temperature Detection of Ammonia <b>KILIÇ Alp</b>
16:30	79_881	Enzyme-Directed Structural Adaptation in ZIF-L: Functional Entrapment of Carbonic Anhydrase for CO <sub>2</sub> capture <b>JINSCHEK Joerg</b>
16:30	80_920	Sepiolite-based photothermo catalysts for air purification <b>DATIVO Giusy</b>
16:30	81_952	Single-Source Precursor Strategy for Synthesis of Porous Cobalt Phosphates for Electrocatalytic Water Splitting <b>ARYA Harsha Jivanchandra</b>
16:30	82_968	Unconventional Polarity Transition in Gas-Sensing Response of 2D MoS <sub>2</sub> /MoO <sub>3</sub> Heterostructure <b>SHEN Yuxiang</b>

**Tuesday May 26**  
**F05 Session 5**

[View session abstracts](#)

08:30	2162	Selective and reproducible formation of earth-abundant oxide thin films as efficient electrocatalyst for water splitting <b>MALANDRINO Graziella</b>
08:50	3404	Toward Efficient Water Splitting: Strategies for Performance Enhancement <b>SHIFA Tofik Ahmed</b>
09:10	672	The surface chemistry of RENi <sub>5</sub> (RE: La, Ce) intermetallics: stability and H <sub>2</sub> adsorption <b>FRECCERO Riccardo</b>
09:30	223	Optimized SnO <sub>2</sub> Thin Films: Correlating Solution Chemistry and Deposition Conditions with Optoelectronic Properties <b>RAMZAN Iqra</b>
09:45	2406	Engineering of the Optoelectronic Properties Of Benzothiadiazole-Based Conjugated Polymers by oCVD: Oxidant Effect <b>LOTITO Sara</b>

**Tuesday May 26**  
**F06 Session 6**

[View session abstracts](#)

10:30	3411	Green Functionalized Carbon-Based Nanocomposites for the Efficient Removal of Emerging Organic Contaminants from Water <b>PÉREZ VILLAREJO Luis</b>
11:10	2796	Sustainable routes for potabilization of water: iron tailored coffee derived biochar as antibacterial agent for water treatment <b>TAGLIAFERRO Alberto</b>
11:30	892	From UiO-66 Gels to Electrospun MOF-Polymer Membranes: Electron Microscopy Guided PFAS Removal with Scalable Platforms <b>JINSCHEK Joerg</b>
11:45	582	Dual-Active NaNbO <sub>3</sub> /MoS <sub>2</sub> Heterojunctions for Enhanced Piezocatalytic Degradation of Organic Pollutants and Cr(VI) Reduction <b>TRIPATHI Chandra Shekhar Pati</b>

**Tuesday May 26**  
**F07 Session 7**

[View session abstracts](#)

13:45	3397	Design and Synthesis of Vinylene-Linked Covalent Organic Frameworks for Photocatalytic Hydrogen Production <b>ZHANG Tao</b>
14:05	792	Charge transfer kinetics of nanogranular ternary metal oxide photoelectrodes grown by supersonic cluster beam deposition <b>VERGARI Michele</b>
14:25	433	Investigation of Photocatalytic Properties of Porous Silicon Carbide (p-SiC) <b>FRAGALA Maria Elena</b>
14:40	545	Growth of epitaxial BaTaO <sub>2</sub> N thin films for solar water splitting <b>DING Yi</b>
14:55	1315	Photoelectrodeposition of Noble-Metal Catalysts on III-V Photocathodes <b>SCHMITT Erica Anne</b>
15:10	1584	Design of nanostructured photoelectrodes for green hydrogen production by water splitting <b>LAPTIN Petr</b>
15:25	702	Electrospun TiO <sub>2</sub> /BiO <sub>1</sub> Nanofibers Networks as Photocatalyst: A Durable Platform for Solar-Driven Removal of Complex Water Contaminants <b>HUIDOBRO RODRÍGUEZ Laura</b>
15:40	495	Z-Scheme g-C <sub>3</sub> N <sub>4</sub> /TiO <sub>2</sub> Nanotube Array for Enhanced Photoelectrocatalytic Degradation of Trichloroethylene <b>PENG Yen-Ping</b>

**Tuesday May 26**  
**FPO2 Poster session 2**

[View session abstracts](#)

- 16:30 01\_1720 Rational design of photosensitizer for photoelectrochemical oxidation of glycerol of formic acid  
**LEE Jeong Kyeong**
- 16:30 02\_1942 Emission control catalysis with powder model catalysts: The influence of noble metal size, composition and ceria morphology  
**DA ROIT Nicola**
- 16:30 03\_1951 Organometallic synthesis of alloyed nickel-copper nanoparticles for the electrocatalytic hydrogen evolution reaction  
**PHILIPPOT Karine**
- 16:30 04\_1953 Efficiency at Scale: Functional Nanoporous Alloys with Low to No Chemical Burden  
**ATWATER Mark**
- 16:30 05\_1959 Shaping the electronic structure of  $\text{Sr}_{2-x}\text{La}_x\text{FeO}_{4-d}$  through positive defects  
**MASTRIKOV Yuri A.**
- 16:30 06\_2021 Boosted Electrochemical  $\text{CO}_2$ RR performance for Ethanol production via Cu-N-O & Cu-N mixed coordination  
**CHOI Sung Yeol**
- 16:30 07\_2035 Rapid Colorimetric Detection of Perfluorooctanoic Acid (PFOA) in Water using Nanozyme Composite,  $\text{Fe}_3\text{O}_4$ @MWCNTs  
**Chit Pyone Pyone**
- 16:30 09\_2056 Exploring binary-alloyed  $\text{RuO}_2$  for enhanced activity and stability under acidic OER  
**SO Soonsung**
- 16:30 10\_2067 Flow Electrode Deionization utilizing Redox Active Electrode and Functionalized Ion Exchange Membrane for Selective Ion Separation and Recovery  
**TRAN Minh Khoi**
- 16:30 11\_2069 Engineering Transition Metal Compound-Based Electrodes for Improved Desalination Performance in Capacitive Deionization  
**TRAN Nguyen Anh Thu**
- 16:30 12\_2070 Neodymium-Induced Valence Electronic Perturbation in CoFe-Based Electrocatalysts for Enhanced and Ultra-Stable Oxygen Evolution Reaction  
**NGUYEN Huu Thang**
- 16:30 13\_2090  $\text{CO}_2$  reduction to light olefins with K-promoted  $\text{LaFeO}_3$   
**ZOURIDI Leila**
- 16:30 14\_2100 Chemical activation as a pathway to enhance monoclinic sulfur loading on carbon fiber matrices for Li-S battery cathodes  
**NISHANTH Joseph**
- 16:30 15\_2118 Tailoring Colloidal Silver nanowires (Ag NWs) Dimensions for Optimization of Transparent Heaters  
**KADIRVEL Lashminarayanan**

- 16:30 16\_2124 Bio-Based Floating Photocatalytic Materials for Sustainable Removal of Emerging Pollutants from Water  
**DUTTA Soumi**
- 16:30 17\_2133  $\text{BiO}_x\text{F}_y$  / Bi nanostructured heterojunctions for the  $\text{CO}_2$  photoconversion  
**BOUSQUET Angélique**
- 16:30 18\_2160 Ammonium-anchored Mn-based Prussian blue analogues via hydrogen bonding for robust sodium-ion battery cathodes  
**CONG Fufei**
- 16:30 19\_2172 Development of lead-free antiferroelectrics from metal oxyanion clusters  
**RAMBARAN Mark. A**
- 16:30 20\_2194 Energetic Metal Organic Frameworks as Reactive Micro-Additives for Controlling Aluminium Oxide Particle Formation in Solid Propellant Exhaust Plumes  
**RATHI Robin**
- 16:30 22\_2266 Quantum Chemical Characterization of Selectivity Control in Sustainable Transformations  
**DERELI Busra**
- 16:30 23\_2270 Sonication- Induced Scission for Precise Geometric Control during  $\text{MoS}_2$  Exfoliation.  
**DORAN Jack**
- 16:30 24\_2280 Tailoring Lignin-Derived Carbon's Morphology for Superior Sodium-Ion Battery Performance  
**SHIKHAR Jyoti**
- 16:30 25\_2283 Engineering of Molybdenum Sulfide Nanomaterials from Molecular Clusters for efficient electrochemical and photochemical hydrogen evolution  
**SORRIBES Iván**
- 16:30 26\_2292 Atmospheric-Pressure Spatial Atomic Layer Deposition of  $\text{Cu}_2\text{O}$  on Ag Nanowire Networks: Scalable Electrocatalysts for Efficient Water Splitting  
**MUÑOZ-ROJAS David**
- 16:30 27\_2299 Liquid Metal-Derived BiSn Particle-Integrated Solar Absorbers for Probing Interfacial Water in Solar Evaporation  
**INCE Duygu**
- 16:30 28\_2306 Grain-boundary electronic effects in NiFeMo electrocatalysts for alkaline water electrolysis  
**NICOARA Nicoleta**
- 16:30 29\_2316 Engineering Cu-ZnO interfaces via Atomic Layer Deposition for sustainable methanol production  
**MAGAGNIN Cippora**
- 16:30 31\_2326 Nanostructured catalysts for efficient  $\text{CO}_2$  reduction: Combined experimental and multiscale modeling insights  
**MOSBAHI Hana**
- 16:30 32\_2337 Interfacial Charge-Transfer Engineering in Sugarcane derived  $\text{MnCO}_3$  Sphere Compositing with multi-walled CNT for Symmetric Coin-Cell Supercapacitor and ultra-toxic Organophosphate Photodegradation  
**JOSEPH Joel Skaria**
- 16:30 33\_2353 Electrospun NiCoFeWx High-Entropy Oxide-Integrated Carbon Nanofibers for Alkaline Oxygen Evolution  
**NOROOZI Alireza**

16:30 36\_2412 Superior performance and stability of anion exchange membrane water electrolysis: non-precious catalyst, MEA, and stack  
**CHOI Sung Mook**

16:30 37\_2519 Synthesis of Zirconium Carbide-Nickel cemented carbides from Nickel nano-dot coated powders  
**SAHU Tushar Kanta**

16:30 38\_2526 When the light kills the photocurrent  
**STANESCU Dana**

16:30 39\_2574 Optical and Electrical Performance of LIPSS-Textured Si for Industrial-Scale PERC Solar Cells  
**AKHTARYARAZAR Darya**

16:30 40\_2585 Controlling the Atomic Layer Deposition of TiO<sub>2</sub> on Mesoporous Al<sub>2</sub>O<sub>3</sub> for Fischer-Tropsch Synthesis application  
**CARIÑO Ann Charise**

16:30 41\_2622 Engineering the Charge Transfer Quenching Gate in CaMo<sub>1-x</sub>W<sub>x</sub>O<sub>4</sub>: Er<sup>3+</sup>/Eu<sup>3+</sup> for Dual Mode (UC/DC) Wide Range Thermometry  
**TYAGI Astha**

16:30 42\_2664 Synergic adsorption/photocatalysis using nanoparticles-modified adsorbents for sustainable water treatment  
**CURRI Maria Lucia**

16:30 43\_2671 Structural Engineering in MOF-Based Catalysts for Sustainable Biomass Valorization and Hydrogen Production  
**WANNAPAIBOON Suttipong**

16:30 44\_2673 Engineering Porous Materials for Sustainable Pollutant Adsorption  
**CASTALDO Rachele**

16:30 45\_2674 PFAS electrosorption using 2D materials: electrode fabrication, electrode characterization and electrosorption tests  
**ALIASGHARI Samira**

16:30 46\_2686 Near unity red emitting Carbon dots for fiber amplifier  
**DAS Palash Kusum**

16:30 47\_2697 Oxide-Stabilized Metallic Nanowire Networks as Sustainable Transparent Electrodes for Next-Generation Energy devices  
**Bellet Daniel**

16:30 48\_2699 Efficient removal of nano- and microplastics from water by designed iron oxide nanostructures  
**VAZ-RAMOS Joana**

16:30 49\_2712 Green design of bio-based hyper-crosslinked polymers for the removal of aromatic pollutants from water  
**CERBONE Antonia**

16:30 51\_2768 The study on Nitronic50 and Nitronic50H as structural materials for future fusion applications  
**ABBASI Zahra**

16:30 52\_2773 Key role of transducing mode on the sensing performances of metallophthalocyanines-based gas microsensors dedicated to atmospheric pollutants monitoring  
**NDIAYE Amadou**

16:30 53\_2806 Ultrafast laser sintered non-stoichiometric titanium niobates: from efficient synthesis to applications.  
**GOMEZ-MUNOZ Gonzalo**

16:30 54\_2810 Elucidating crystal-facet behaviors of Cerium dioxide for Pd/CeO<sub>2-x</sub> catalyst on selective hydrogenation of alkynols  
**HE Jiabin**

16:30 56\_2835 Solvent-Governed Relithiation Kinetics and Thermodynamics for Direct Rejuvenation of Spent Cathodes  
**KIM Jiwon**

16:30 57\_2840 Ultrafast photothermal effect-derived metal-graphene hybrid electrocatalysts for water splitting  
**JO Seung Geun**

16:30 58\_2875 Microenvironment Engineering Turns a Single POM Cluster into Two Acid Electrocatalysts  
**Giménez López Maria Del Carmen**

16:30 59\_2888 Morphology Engineered Moss-like Cerium Molybdate for High-performance Symmetric Supercapacitor  
**JOSEPH Joel Skaria**

16:30 60\_2901 2D Metal Phosphorous Trichalcogenides (MPCh<sub>3</sub>) for Photothermal Conversion and Solar Desalination  
**WANG Honglei**

16:30 61\_2948 Confined Growth of 2D Covalent Organic Framework Nanosheets with Controlled Thickness for Osmotic Energy Conversion  
**MAO Linjie**

16:30 62\_2954 High Throughput Continuous Degradation of Imidacloprid using an immobilised Titanium dioxide platform  
**MAITRA Abhijnan**

16:30 63\_2962 Morphology-Engineered Pt/CeO<sub>2</sub> Nanocatalysts for Sustainable Hydrogen Production via Aqueous Phase Reforming  
**TRIVEDI Suverna**

16:30 64\_3030 WO<sub>3</sub>/SnO<sub>2</sub> Heterostructures: Processing, Characterization and Light-assisted Gas Sensing Performance  
**DA SILVA Luís Fernando**

16:30 65\_3053 Facile synthesis of CuO nanoparticles-PEDOT:PSS-based inks for low-cost, flexible thermoelectric energy harvesting  
**KUMAR Ajay**

16:30 66\_3057 Zeolite-Based Photocatalysts Derived from Iron-Rich Industrial Residues for Emerging Pollutant Removal  
**ANDRONIC Luminita**

16:30 67\_3069 Enhancing Synergistic Effects in Electrochemical Refinery Processes via Electron-Bridge Engineering  
**HAN Xiuxiu**

16:30 68\_3098 Interface Engineering of CoPi/PANI@NiCoP Composite for Efficient Alkaline Hydrogen Evolution  
**VARGESE Anuj A**

16:30 69\_3146 Porosity Engineered High Entropy Spinel Oxide Electrocatalysts as an Ultra-stable Cathode for Zinc-air Batteries  
**ERDIL Tuncay**

16:30	70_3155	Tuning Work Function and Metal–Oxygen Bond Strength in High Entropy Oxides via Co–Fe Synergy for Zinc–Air Batteries <b>GEYIKÇI Uygur</b>
16:30	71_3162	Tailoring Electronic Structures of High–Entropy Perovskite Oxides via A–Site Engineering for Durable Zinc–Air Batteries <b>TOPARLI Cigdem</b>
16:30	72_3163	Tuning Acetone Selectivity via Controlled Oxygen Vacancies and Fermi–Level Modulation in Gadolinium–Doped Ceria <b>MISTRY Rutvi</b>
16:30	73_3165	Enhancing Hydrogen Storage Kinetics in Magnesium Hydride (MgH <sub>2</sub> ) via Advanced Computational Simulations <b>HOLEC David</b>
16:30	74_3188	S–Scheme Charge Transfer in 2D MoS <sub>2</sub> @TiO <sub>2</sub> Heterostructures for Efficient Photocatalytic H <sub>2</sub> Generation <b>SASMAL Abhishek</b>
16:30	75_3217	A Comparative Study of CoFe <sub>2</sub> O <sub>4</sub> and Co <sub>1.5</sub> Fe <sub>1.5</sub> O <sub>4</sub> Nanostructures for Methyl Orange Removal: Impact of Operational Parameters on Adsorption Performance <b>SAINT-POL Angèle</b>
16:30	76_3221	Visible light active Cobalt Ferrites Co <sub>x</sub> Fe <sub>3–x</sub> O <sub>4</sub> (x= 1 and x= 1.5) Photocatalysts: An Experimental Study with Predictive RSM Approach <b>SAINT-POL Angèle</b>
16:30	77_3235	Interfacial Engineering of Hydrophobic Porous–PMMA/CQD/Ti <sub>3</sub> C <sub>2</sub> T <sub>2</sub> Scaffolds for Trace Formaldehyde Detection <b>WANG Shih–Han</b>
16:30	78_3245	Defect–induced ferromagnetism of ZnO nanoparticles and its application in LSPR–based sensor systems <b>REDKO Roman</b>
16:30	79_3250	Transition Metals for Sustainable Green Hydrogen: Atomic Layer Deposition of Ni–Co Thin Layers to Study the Synergistic Effect between Transition Metals on Hydrogen Evolution Reaction in Anion Exchange Membrane Electrolysis <b>SHARIFIRAD Alireza</b>
16:30	80_3264	Design–Synthesis–Performance Framework for Advanced Nanomaterials using Continuous Flow <b>KELLICI Suela</b>
16:30	81_3265	Native Oxide MoSe <sub>2</sub> – MoO <sub>2</sub> Heterostructure–based photoinduced Self–powered Gas Sensor for Selective NO <sub>2</sub> and H <sub>2</sub> detection <b>MONDAL Dipanjana</b>
16:30	82_3279	From Concrete to Catalyst: Atomic Alchemy in C–S–H for In–Situ Nanoparticle Engineering <b>BAYRAM Sevgi Ekin</b>
16:30	83_3296	Black Bismuth Vanadate Thin Films <b>Urbano Alexandre</b>
16:30	84_3306	Design of 3D Metal Oxides/2D Hybrid Materials Decorated with Plasmonic Nanoparticles for Ultrasensitive SERS Detection <b>TITE Teddy</b>

16:30	85_3362	Optimizing the Oxygen Evolution Reaction on NiFe–LDH: A Response Surface Methodology Study on the Interactive Effects of Electrolyte Cation, Concentration, and Temperature. <b>ELAADSSI Yassine</b>
16:30	86_3398	Bioinspired Polymer Brush Reinforced Solid Slippery Coatings for Marine Photovoltaic Protection <b>YIN Ling</b>
16:30	87_3399	Two–Dimensional Covalent Organic Frameworks as Robust n–Type Organic Mixed Ionic–Electronic Conductors for Real–Time Detection of Radionuclides <b>ZHAO Wenkai</b>
16:30	88_500	Oxidation–Resistant Iridium Supported Catalysts for Durable Water Electrolysis <b>PAEK Sae Yane</b>
16:30	89_783	Annealing Atmosphere Engineering of ZnO Nanoparticles for Enhanced Light Activated Ozone Sensing at Room Temperature <b>CASTRO Mayron</b>

## Wednesday May 27

## F09 Session 9

[View session abstracts](#)

08:30	52	Sustainable Carbon nano and Micromaterials for Environmental Sensing, Monitoring and Decontamination <b>NACCACHE Rafik</b>
08:50	2827	From Silk Fibres to Multifunctional Biodegradable Materials <b>BILOTTI Emiliano</b>
09:10	1880	Visible–light–driven carbon–based materials: from synthesis to their application <b>NATILE Marta Maria</b>
09:30	299	CuO Nanowires as Selective Electrocatalyst for Lignin <b>Fernández–Catalá Javier</b>
09:45	147	The Rational Design and Characterization of a Novel Nanotriangle Metal–Insulator–Metal Metasurface in the SERS sensing of Agrichemicals <b>KHALID–SALAKO Fahd</b>

## Wednesday May 27

## F10 Session 10

[View session abstracts](#)

10:30	527	Spectral Selectivity Enhancement in Solar Absorber Multilayers through Ti(O)N–Titanium Oxynitride Thin Film Modulation <b>LI BASSI Andrea</b>
10:50	1893	Inorganic thin film solar cells: past, present and future <b>ROMEO Alessandro</b>
11:10	55	Beyond conventional lithography <b>COLOMBARA Diego</b>

- 11:30 942 Electroactive PCPs : chirality induction and galvanostatic synthesis  
**Zigon Nicolas**
- 11:45 1345 Bridging Porous Framework Materials and Microelectronics via Aerosol Jet Printing  
**CHAKRABORTY Argha**

**Wednesday May 27**  
**FPO3 Poster session 3**

[View session abstracts](#)

- 13:45 01\_1014 Dual-Functional Photoelectrochemical Platforms for Solar Hydrogen Generation and Organic Waste Conversion  
**BAE Ho-Sub**
- 13:45 02\_1044 The impact of nanohybrid in improving the structural, optical, dielectric, and conductivity properties of polymer nanocomposites for flexible electronic devices applications  
**Alqarni Maha**
- 13:45 03\_1056 DFT and DFTB calculations for considering correlation between dipole moment of nanosized CdS crystals and trap states formation  
**ALDONGAROV Anuar**
- 13:45 04\_1062 Light-Assisted Gas-Sensing Properties of SnO<sub>2</sub> Nanoparticles: Processing and Characterization  
**DA SILVA Luís Fernando**
- 13:45 05\_1143 Electrostatically Tuned Graphene Oxide-Covalent Organic Framework Membranes for High-Flux Rejection of Low Molecular Weight Organic Compounds  
**KHAN Niaz Ali**
- 13:45 06\_1188 Rational Design of Graphitic Carbon Nitride/Zinc Oxide Composite for Photodegradation of Toxic Dye  
**ALSADAH Hashim**
- 13:45 07\_120 Biomass- Derived Hard Carbon as Anode Material for Sodium-Ion Batteries  
**NEHRA Pooja**
- 13:45 08\_1219 Efficient Methylene Blue Photodegradation on TiO<sub>2</sub> Thin Films Fabricated by Pulsed Laser Deposition  
**BROASCA Elisa-Gabriela**
- 13:45 09\_1250 Ammonia detection with WO<sub>3</sub> and TiO<sub>2</sub> nanoparticles incorporated silicon nanowire arrays  
**POWROZNIK Paulina**
- 13:45 10\_1253 Single-Source Precursor Strategy for Synthesis of Porous Cobalt Phosphates for Electrocatalytic Water Splitting  
**ARYA Harsha Jivanchandra**
- 13:45 11\_130 Development of 3D Reversible Smart Energy-Saving Devices for Adaptive Energy Management  
**KIM Bong Hoon**
- 13:45 12\_1305 Schiff base fluorescent probe for Cu<sup>2+</sup> detection in water  
**ROBERT Berly**
- 13:45 13\_133 Silver-decorated WO<sub>3</sub> structures for Efficient Dye Degradation and Antimicrobial Applications  
**KANAFIN Yerkanat**

- 13:45 14\_1337 Tailored Solvent Chemistry for Enhanced Li-CO<sub>2</sub> Mars Battery Performance  
**BABU Surya.S.**
- 13:45 15\_1372 Facile Room-Temperature CoO-CoxB Interfacial Engineering of Manganese-Based Cathodes for Enhanced Aqueous Zn-Ion Battery Performance  
**KIM Seongkwan**
- 13:45 16\_1376 Atomic-scale Inter-Sublattice Randomization in Ordered Pt(Co,Ni) Intermetallics for Durable Oxygen Reduction Catalysis  
**PARK Yeji**
- 13:45 17\_1396 Morphological Engineering of GaN-Decorated SnO<sub>2</sub> Nanopolygons for Highly Sensitive and Selective NO<sub>2</sub> Gas Detection  
**KIM Jae-Hun**
- 13:45 18\_1409 Berry Curvature-Driven Valley Nernst Effect in Monolayer WSe<sub>2</sub> Induced by Magnetic Proximity  
**LEE Won-Yong**
- 13:45 19\_1436 Utilization of Non-oxidized graphene as support and additive in electrocatalysts for PEMFCs and AEMWEs  
**WOO Juwan**
- 13:45 20\_1447 High-Performance Hard Carbon Anodes from Biomass Briquettes for Sodium-Ion Batteries  
**MYRZAKHAN Shynar**
- 13:45 21\_146 Ultrafast Plasma Engineering of ZnNi-LDHs for Asymmetric Supercapacitors  
**BABY Anjana**
- 13:45 22\_1491 Temperature-Optimized Fe-N<sub>4</sub> Electrocatalyst Derived from Edge-Abundant Carbon Nanoribbons for Oxygen Reduction Reaction  
**JEONG Min Gyeong**
- 13:45 23\_1494 Enhancement of oxide-ion conductivity by intercalation  
**NAKAMURA Syotaro**
- 13:45 24\_1514 Fluorine-Doped GNR@CNT as a Cathode Additive for Improved Carbon Corrosion Resistance in PEMFC  
**KIM Daehun**
- 13:45 25\_1537 Unravelling the Reaction Mechanism of Copper Sulfide Nanoplatelets by In situ Synchrotron X-ray Scattering and Pair Distribution Function Analysis  
**BELGARDT Lian Jori**
- 13:45 26\_1545 Plasma-engineered graphitic carbon nitride: XPS and DFT insights into surface chemistry and enhanced visible-light photocatalysis  
**HOMOLA Tomas**
- 13:45 27\_1546 Sustainable Passive Daytime Radiative Cooling Based on Upcycled Chip Bags and Bio-Based Composites  
**SONG Qimeng**
- 13:45 28\_1547 Engineering Ru<sub>2</sub>P/Ir<sub>2</sub>P Heterostructures for Efficient Alkaline Hydrogen Evolution Reaction via Hydrogen Spillover  
**JEONG Sangyeon**
- 13:45 29\_2321 Innovative fluoride functional materials as sensor for nitro-compounds  
**BARBAGALLO Claudia**

13:45 30\_1716 Nanosecond pulsed laser annealing of sol-gel vanadium oxide films for dual-mode selective hydrogen sensing  
**BASSO Maria**

13:45 33\_1803 Interface-Engineered IrRuO<sub>2</sub>/PdPb Multi-Frame Catalysts for Efficient Oxygen Evolution in Acidic Media  
**KIM Doyeop**

13:45 34\_1862 Two-Dimensional Quaternary Alloys of (RuMoVNb)Se<sub>2</sub> for Superior Hydrogen Evolution Reaction Catalysis  
**KANG Hongseok**

13:45 35\_1874 Synergistic Role of Uranyl ions in Se(VI) Sorption during Fe(II)-mediated Transformation of Ferrihydrite Nanoparticles  
**Srabanee Snigdha**

13:45 36\_1896 Room-Temperature Tuning of Electrical Conductivity in Single MoS<sub>2</sub> Flakes via Nanoscale Amorphization by Focused Ion Beam  
**DAS NEVES Matheus F. F.**

13:45 37\_1997 From Binary to Quaternary TMD Alloys: Phase Transition and Defect Engineering for Hydrogen Evolution Catalysis  
**KIM Juyeon**

13:45 39\_2019 Fabrication of porous molybdenum with a controlled pore structure via the freeze-drying process  
**Oh Sung-Tag**

13:45 40\_2029 Carbon – nano onions- based matrix nanocomposite for chemiresistive detection of isopropyl alcohol  
**CRISTINA Pachi**

13:45 41\_2075 Coal Tar-Coated Artificial Graphite Anode Derived from Polyethylene for Lithium-Ion Batteries  
**HEEWON Jin**

13:45 42\_2077 Catalyst Driven Synthesis of Inversely Vulcanized Polymers with Oligoethylene Unit Bearing Comonomer for Lithium-Sulfur Battery Application  
**ALEX Aby**

13:45 43\_2092 Engineering a Bi<sub>2</sub>MoO<sub>6</sub>/ CaFe<sub>2</sub>O<sub>4</sub> Heterointerface for Suppressed Recombination and Enhanced Photoelectrochemical Activity  
**KAR Archita**

13:45 44\_2094 Highly durable and ultra high efficient electrochromic devices for smart windows  
**BEHERA Anupama**

13:45 45\_2095 Rational design of FeP nanoparticles and Fe single atoms on N, P co-doped carbon materials for boosting redox kinetics in Li-S batteries  
**Dae Kyom Kim**

13:45 46\_2127 Phase-Engineered Au@Cu<sub>2</sub>O/CuO Core-Shell Nanoparticles for Dual-Selective Detection of Ethanol and Ammonia Gases  
**SEO Hye-Rim**

13:45 47\_2135 Reduction of 4-Nitrophenol to 4-Aminophenol by Reusable CuFe<sub>5</sub>O<sub>8</sub>-Based Catalysts Synthesized by Co-Precipitation Method  
**Yaemphutchong Sila**

13:45 48\_2185 Methods and devices for solar energy conversion with photovoltaic applications  
**CHILIBON Irinela**

13:45 49\_2233 Novel electrocatalysts for oxygen evolution reaction based on functionalised carbon materials  
**POSADZY Marta**

13:45 50\_230 N-Acetyl-L-Cysteine capped CdS core and CdS/ZnS core-shell Quantum Dots for Hg<sup>2+</sup> ion sensing, visible light photocatalysts and phosphor converted LED applications  
**KALITA Mitul**

13:45 51\_2303 Eco-Friendly Development of ZnO-Based Biopolymer-Carbon Nanocomposites for enhanced photocatalytic and antibacterial activity as a tri-nanocomposite  
**SINGH Rajat**

13:45 52\_2304 Magnetically recyclable phytogetic MBC-ZnO nanocomposite for sustainable environmental cleanup with a forensic edge  
**PAL SINGH Yogendra**

13:45 53\_2408 Enhanced Thermal Stability in InAs Colloidal Quantum Dots Films with AlBr<sub>3</sub> Ligands  
**WEN Xin**

13:45 54\_2567 Carbon Dots-TiO<sub>2</sub> Heterostructures as Efficient Photocatalysts  
**GALANI Anna**

13:45 55\_2639 PCN-h-BN 2D nanocomposites as bifunctional catalysts for biomass valorisation  
**CSEH Viktória**

13:45 57\_2689 Design, Synthesis and Characterization of Three-component Zn/Cd-MOFs for the Synthesis of 1,4-DHPs  
**KAUR Rupinder**

13:45 58\_2740 Au@ZIF-8 Plasmonic Architectures for Portable Gas Phase SERS Sensing  
**KANIKE Chiranjeevi**

13:45 59\_2769 Engineered Photocatalytic and Self-Healing Smart Coatings for Environmental Surface Upgrade and Indoor Air Quality Applications  
**ZOGRAFAKI Maria**

13:45 60\_294 Investigation on the Ferroelectric and Photocatalytic Properties of Lead-free High Entropy Oxide Pellets  
**VARGHESE ALEX Kevin**

13:45 61\_322 Synergistic Radiative Cooling and Heat Dissipation of h-BN/Al<sub>2</sub>O<sub>3</sub> Hybrid Composites  
**OH Yubeen**

13:45 62\_3402 Regenerable Magnetic UiO-66-NH<sub>2</sub>/Fe<sub>3</sub>O<sub>4</sub> Nanocomposite for Selective Ag(I) Recovery from Industrial Wastewater  
**PÉREZ VILLAREJO Luis**

13:45 63\_356 From Single to Multi-Oxide Systems: Structure-Property-Activity Relationships of CuO-Based Composites in Different Test Media  
**VIHODCEVA Svetlana**

13:45 64\_369 Air stability of Mn-rich precursors governs the performance of Li- and Mn-rich layered oxides  
**JIN Wooyoung**

13:45 65\_391 Cobalt ferrite nanoparticles as an efficient room-temperature chemoresistive carbon dioxide sensor  
**ZITO Cecilia**

13:45	66_490	High-Performance Hard Carbon Anodes Derived from Charcoal Briquettes for Sodium-Ion Batteries. <b>MYRZAKHAN Shynar</b>
13:45	67_539	Synergistic BiOI/SnO <sub>2</sub> Nanofibers for Visible-Light-Assisted PMS Mineralization in Multipollutant Water <b>SERRÀ RAMOS Albert</b>
13:45	68_540	From Pollen to Catalysts: Cu and Ni@Cu (Photo)Catalysts for Degrading Pollutants <b>SERRÀ RAMOS Albert</b>
13:45	69_600	High-Performance Hard Carbon Anodes Derived from Briquettes for Sodium-Ion Batteries. <b>MYRZAKHAN Shynar</b>
13:45	70_617	Functional ionic covalent organic frameworks as selective sorbents for the recycling of Li-ion batteries <b>POSADZY Marta</b>
13:45	71_623	Enhancing the Stability and Product Selectivity of g-C <sub>3</sub> N <sub>4</sub> /TiO <sub>2</sub> Photocatalysts in the Photocatalytic Coupling of Methane <b>CARMINATI Saulo</b>
13:45	72_627	Ensemble Nuclearity ets the Optimum in Chemoresistive Hydrogen Sensing <b>SHIN Hamin</b>
13:45	73_666	Facile Laser-Assisted Synthesis of MXene/Graphene Nanocomposites for Supercapacitors <b>GAUTAM Nitin Kumar</b>
13:45	74_669	Anti-corrosive carbon materials for PEMFCs: a size effect of F-doped Graphene Nanoribbons derived from carbon nanotube <b>KIM Ye-Rim</b>
13:45	75_69	Deep insights into the conduction mechanisms in lead free perovskites Ba <sub>0.75</sub> Sr <sub>0.25</sub> Ti <sub>1-x</sub> Sn <sub>x</sub> O <sub>3</sub> (0 = x = 0.10) ceramics <b>KUMAR Anil</b>
13:45	76_694	Carbon dioxide fixation into nanocarbon materials <b>KIM Jungpil</b>
13:45	77_696	Unveiling the Degradation Mechanism and Regeneration Pathways of Spent Carbon Materials for Rechargeable Batteries <b>YANG Junghon</b>
13:45	78_704	Template-Engineered BiOI-based Electrodeposited Nanowires for Visible-Light Water Treatment <b>HUIDOBRO RODRÍGUEZ Laura</b>
13:45	79_754	Electrocatalysis of Ni-MOFs using tannic acid for enhanced oxygen evolution reaction efficiency <b>YUN Kyusik</b>
13:45	80_758	High-Performance Nickel Oxide-Montmorillonite Modified PVDF Nanocomposite Membranes for Efficient Oil-Water Microemulsion Separation <b>MONDAL Rohan</b>
13:45	81_760	Active Learning-Driven Simulation of PtNi Nanoparticle Structural Ordering <b>Bae Sojin</b>
13:45	82_818	Growth of Ga/Ni-based oxide nanostructures by Joule heating under ambient conditions <b>MEDINA Carlos</b>
13:45	83_856	Enhancement of Lithium-Ion Battery Performance through Synthesis of Water-Soluble Polyimide for Silicon Anodes <b>Kim Jaewon</b>
13:45	84_861	Self-Assembled 2D Peptide Crystals and Thin Films <b>KOPYL Svitlana</b>

13:45	85_870	Recovery of metal ions with CDI containing covalent organic frameworks electrode <b>RATAJCZAK Pawel</b>
13:45	86_970	Highly sensitive and simultaneous detection of theophylline and caffeine in the presence of dopamine using Ce <sub>2</sub> (MoO <sub>4</sub> ) <sub>3</sub> @rGO nanocomposite modified electrode <b>SINGH Gajendar</b>
13:45	87_976	Photoanode-assisted membrane-free decoupled acid water electrolysis <b>ŠUTKA Andris</b>

Thursday May 28

F12 Session 12

[View session abstracts](#)

08:30	2363	Earth-abundant light-emitting materials for optoelectronics <b>MAURO Matteo</b>
08:50	3377	Organic Systems Emitting in Water <b>RIZZO Fabio</b>
09:10	688	A morphotropic phase boundary in MA <sub>1-x</sub> FA <sub>x</sub> PbI <sub>3</sub> : linking structure, dynamics, and electronic properties <b>HAINER Tobias</b>
09:25	1424	Three-Dimensional Continuous Nanoporous Cu <sub>2</sub> O-TiO <sub>2</sub> Photocatalysts with Deep-UV-Enabled Regeneration <b>SETIYANTO Hendri</b>
09:40	1057	Synthesis and Engineering of Functional Nanomaterials via Liquid Metals <b>GHASEMIAN Mohammad Bagher</b>
09:55	1138	Self-Assembly-Mediated CuWO <sub>4</sub> Heterostructures Enable Efficient Photocatalytic Glycerol Oxidation <b>LAMBERTI Francesco</b>

Thursday May 28

F13 Session 13

[View session abstracts](#)

10:30	878	Evaluation of local temperature using optical probes <b>SPEGHINI Adolfo</b>
10:50	1993	Micro- and Nanostructures from Photosynthetic Microorganisms as Living Materials for Solar Energy Conversion <b>FARINOLA Gianluca Maria</b>
11:10	1968	Triboelectric cellulose materials: from fundamental to engineering <b>RENYUN Zhang</b>
11:30	2972	Surface-Activated Interfacial Nanoreactor for Reactive H <sub>2</sub> S Sequestration under Ambient Conditions via Activate-React-Lock Strategy <b>NG Li Shiuan</b>
11:45	787	Year-Round Thermal Management Based on Highly Scattering Nanofibers and Upcycled Chip Bags <b>SONG Qimeng</b>

Thursday May 28  
F14 Session 14

[View session abstracts](#)

13:45	1485	Deciphering the Cu-Perovskite Interface for Enhanced Environmental Catalysis <b>CARLOTTO Silvia</b>
14:05	12	Cocktail Effect-Induced High-Entropy Layered Double Hydroxides for Multifunctional Electrocatalysis <b>IBRAHIM Kassa Belay</b>
14:25	3350	Green MOF-Derived Mixed Oxide Nanomaterials for Durable Polymer Electrolyte Water Electrolysis <b>PETITDEMANGE Eliot</b>
14:40	1173	Reversible rhenium exsolution in Re-doped SrFeO <sub>3</sub> for symmetric SOFC and SOEC electrodes <b>SÁNCHEZ CABALLERO Abraham</b>
14:55	893	Breaking the Durability–Power Trade-Off: Boron-Directed Faceted O <sub>3</sub> Cathodes for High-Rate Sodium-Ion Batteries <b>SONG Tengfei</b>
15:10	1353	Exploring Crystalline (Ni <sub>2</sub> Fe <sub>2</sub> O <sub>4</sub> ) for Efficient Oxygen Evolution Reaction in AEM Water Electrolysis <b>MUHAMMAD Atta</b>
15:25	1511	Life Cycle Assessment of AlTiN Coatings for Hydrogen Barrier Applications <b>BATTISTON Simone</b>
15:40	1484	Tuning Redox Environment of Rh Single Atoms via Surface Defect Modulation in Fe-Ce Oxide <b>KIM Gunjoo</b>

Thursday May 28  
F15 Session 15

[View session abstracts](#)

16:30	3140	Turning CO <sub>2</sub> into value: design strategies for highly efficient catalysts <b>MOSTONI Silvia</b>
16:50	2864	GIMENEZ López Maria Del Carmen
17:10	3428	Rare Earth Doped Nanoparticles and the Versatility of their Luminescence Properties <b>VENTRONE* Fiorenzo</b>
17:30	628	Nanocomposite Cathode Design for Improved Thermal Stability and Electrochemical Activity in Solid Oxide Fuel Cells <b>ZAMUDIO-GARCÍA Javier</b>
17:45	385	3D-Printed KVPO <sub>4</sub> F/rGO Aerogel Electrodes as High-Performance 5V-Class Cathode for Advanced Potassium-Ion Battery <b>ZHANG Xiaolin</b>
18:00	185	(Photo)Thermocatalytic Conversion to $\gamma$ -Valerolactone over Nickel-Based Catalysts <b>RIGUAL-MIRET Jordi</b>
18:15	15	Selective and Stable NO <sub>2</sub> Gas Sensors based on Hybrid Transition Metal Dichalcogenides Nanostructures for Environmental Safety and Monitoring. <b>KODAN Sonika</b>

Friday May 29  
F16 Session 16

[View session abstracts](#)

08:30	1974	Uncovering Active Surfaces in 2D MP53 for Electrochemical Synthesis <b>SENDEKU Marshet Getaye</b>
08:50	3339	New Insights into the photocatalytic mechanism of sodium hexatitanates via in situ EPR and ex situ methodologies <b>GARCIA DOS SANTOS Ieda</b>
09:10	1135	Mechanochemical synthesis of MOFs for environmental applications <b>COSTA Cecilia Daniela</b>
09:25	374	Concept of Microwave Catalysis via Atomic-Scale Energy Concentration in Solid-State Materials <b>KISHIMOTO Fuminao</b>
09:40	329	Exploiting metal mobility in liquid metals for ammonia production <b>ZURAIQI Karma</b>

Friday May 29  
F17 Session 17

[View session abstracts](#)

10:30	788	One DNA Scaffold, Two Silver Nanoclusters: focus on Composition, Structure, and Photophysics <b>LICCARDO Letizia</b>
10:50	2604	Materials-by-Design Electrospun Nanofibrous Composites for Biomedical, Energy, and Environmental Applications <b>MONTALBANO Giorgia</b>
11:10	2581	Microwave-Assisted Morphology Engineering of Co-Bi <sub>2</sub> S <sub>3</sub> on Waste PET-Derived Carbon Foam for Enhanced Interfacial Solar Desalination <b>HUSSAIN Muzammil</b>
11:25	1470	Freeze-casted ceramic with vertically-aligned pores decorated with photothermal absorbers for solar-driven interfacial evaporation <b>PATTARO Sara</b>