

OVERVIEW PROGRAMME

Tuesday 2 September 2025

10:00	Registration		
12:30	Lunch		
13:30	Welcome & introductions Alex Cowan <i>University of Liverpool, UK</i> Jenny Zhang <i>University of Cambridge, UK</i> Session chair: Alex Cowan		
13:45	PL01 - The Secret Life of Electrocatalysts unveiled by Operando Spectroscopy and Microscopy Beatriz Roldan Cuenya <i>Fritz-Haber-Institut der Max-Planck-Gesellschaft, Germany</i>		
14:30	PL02 - Artificial Z-Scheme for Photocatalytic CO₂ Reduction Using Molecular Photocatalysts as Key Players Osamu Ishitani <i>Hiroshima University, Japan</i>		
15:15	Refreshments		
	Inorganic	Biological	Electrocatalysis
	Session chair: TBC	Session chair: TBC	Session chair: TBC
15:45	K01 Scalable and Efficient Artificial Photosynthetic Processes for Solar Fuel Production Qian Wang <i>Nagoya, Japan</i>	K02 Title TBC Peter Lindblad <i>Uppsala University, Sweden</i>	K03 Hybrid Photoelectrodes for Light-driven CO₂ reduction Jillian Dempsey <i>University of North Carolina, USA</i>
16:15	I01 Advanced photoelectrodes to enable solar fuel production under variable and diurnal conditions Emily Warren <i>National Renewable Energy Laboratory, US</i>	B01 Light-driven electron transfer and CO₂-reduction at and across artificial lipid bilayers Andrea Pannwitz <i>Friedrich Schiller University Jena, Germany</i>	E01 CO₂/CO-to-C₃+ products electrochemical conversion for dinuclear cuprous molecular catalysts Naonari Sakamoto <i>Toyota Central R&D Labs Inc., Japan</i>
16:35	I02 Connecting the Dots for How Highly Nonuniform Nanoreactors + Discrete Photon Absorption Events + Stochastic Charge Separation = Near-Perfect Water Splitting Shane Ardo <i>UC Irvine, USA</i>	B02 A Versatile Bioconjugation Strategy for Photosystem II Engineering in Cyanobacterial Biohybrids Hyeonyong Lee <i>University of Cambridge, UK</i>	E02 Tetracationic Cobalt 3,4-pyridinoporphyrazine for Direct CO₂ to Methanol Conversion Escaping the CO Intermediate Pathway Chanjuan Zhang <i>VITO, Belgium</i>
16:55	I03 Semiconductor/metal-organic frameworks assemblies for photoelectrochemical hydrogen production Uppsala University, Sweden	B03 Semi-artificial leaf interfacing organic semiconductors and enzymes for solar fuel synthesis Celine Wing See Yeung <i>University of Cambridge, UK</i>	E03 Electrografting of organic layer on Cu-based electrode surface for improving C-C coupling during CO₂ electroreduction Duy Thai Nguyen <i>College de France, France</i>
17:15	Welcome reception		
19:00	Close		

Wednesday 3 September 2025

09:00	Session chair: Julea Butt PL03 - 2024 Tilden Prize for Chemistry Solar Chemistry: Translating Concepts into Technologies Erwin Reisner <i>University of Cambridge, UK</i>		
09:45	PL04 - Living bio-nano systems for solar hydrogen production Kara Bren <i>University of Rochester, USA</i>		
10:30	Refreshments		
	Inorganic	Organic	Advanced methods
	Session chair: TBC	Session chair: TBC	Session chair: Sebastian Sprick
11:00	K04 Title TBC Marcella Bonchio <i>University of Padova, Italy</i>	K05 Title TBC Haining Tian <i>Uppsala University, Sweden</i>	K06 Charge carrier dynamics in organic semiconductor photocatalysts James Durrant <i>Imperial College London, UK</i>
11:30	I04 Light-driven catalysis of the CO₂ reduction reaction using heptacoordinated cobalt and iron complexes Mirco Natali <i>University of Ferrara, Italy</i>	O01 Rational design of organic conjugated polymers for efficient photocatalysis Xiong Chen <i>Fuzhou University, China</i>	A01 Catalyzing Change: The Role of Multifunctional Materials in Solar-chemistry technologies Víctor A. de la Peña O'Shea <i>IMDEA Energy Institute, Spain</i>
11:50	I05 Integrated Experimental and Theoretical Investigation of Photocatalytic CO₂ Conversion to Hydrocarbons: Unraveling Mechanisms and Reaction Pathways SU IL In <i>Daegu Gyeongbuk Institute of Science and Technology, South Korea</i>	O02 Metal- and solvent-dependent recombination pathways in organic photocatalyst systems Sam Hillman <i>Imperial College London, UK</i>	A02 Full ThOTrLE tr-IR: Time resolved IR Spectroelectrochemistry with Controlled Sample Throughput for the Investigation of (Catalytic) Redox Intermediates Kerstin Oppelt <i>University of Zurich, Switzerland</i>
12:10	I06 Realization of a Photoelectrochemical Cascade for the Generation of Methanol Grace Rome <i>Colorado School of Mines/National Energy Laboratory, US</i>	O03 Floatable composites for solar chemistry at the liquid-liquid interface Andrea Rogolino <i>University of Cambridge, UK</i>	A03 Tracking interfacial redox dynamics of photoanodes by operando X-ray Absorption Spectroscopy Raffaello Mazzaro <i>University of Bologna, Italy</i>
12:30	Lunch		
	13:15 Publishing with Impact (RSC)		
	Inorganic	Organic	Advanced methods
	Session chair: TBC	Session chair: TBC	Session chair: Libby Gibson
14:00	I07 Developing photoelectrochemical water splitting devices - from understanding charge carrier behaviour to testing prototypes in the field Brian Tam <i>Imperial College London, UK</i>	O04 Photocatalytic hydrogen production coupled to glucose oxidation using a conjugated polyelectrolyte photocatalyst. Rhys Bourhill <i>University of Strathclyde, UK</i>	A04 High throughput experimentation for solar fuels materials and methods—12 years of deployment and discovery Joel Haber <i>California Institute of Technology, USA</i>
14:20	I08 Exchange of CO₂ with CO as Reactant Switches Selectivity in Photoreduction on Co- and Fe-ZrO₂ from C1-3 Paraffin to Ethylene and Propylene Yasuo Izumi <i>Chiba University, Japan</i>	O05 Electric bias-free solar-to-hydrogen peroxide conversion in a photoelectrochemical cell using an organic polymer photocathode Masayuki Yagi <i>Niigata University, Japan</i>	A05 Visualizing Spin Selective Electron Dynamics in Yttrium Iron Garnet Photoanodes Using Ultrafast, Circularly Polarized XUV Light Robert Baker <i>Ohio State University, USA</i>
14:40	I09 Biomimetic photocatalytic N₂ fixation based on MOFs Ling Wu <i>Fuzhou University, China</i>	O06 Boosting Solar Fuel and Chemical Production with Organic Heterojunctions and Hybrids Salvador Eslava <i>Imperial College London, UK</i>	A06 Microkinetic modelling of photocatalytic oxidation processes for sustainable hydrogen production Sergio Vernuccio <i>University of Southampton, UK</i>
15:00	I10 Photocatalytic CO₂ Reduction with Oxygen-Tolerance Hua Sheng <i>Institute of Chemistry, Chinese Academy of Sciences, China</i>	O07 Decoupled Solar Energy Conversion and Storage in a Two-Dimensional Covalent Organic Framework Photoanode Bibhuti Bhushan Rath <i>Max Planck Institute for Solid State Research, Germany</i>	A07 Unravelling Charge Carrier Dynamics in Nanostructured Photoelectrodes for Water Splitting Via Intensity-Modulated Photocurrent Spectroscopy. Juan Carlos Exposito Galvez <i>Universidad Pablo de Olavide, Spain</i>
15:20	I11 Nanoscale Strategies for Directing the Enhancement in Plasmon Enhanced Electrocatalysis: Insights and Challenges Andrew Bagnall <i>Uppsala University, Sweden</i>	O08 Probing and tuning of ion-mediated excitonic effects organic photocatalysts Filip Podjaski <i>Imperial College London, UK</i>	A08 Photothermal catalysis for solar fuels production Hongqi Sun <i>The University of Western Australia, Australia</i>
15:40	Refreshments		
	Inorganic	Organic	Electrocatalysis
	Session chair: TBC	Session chair: TBC	Session chair: TBC
16:10	I12 Title TBC Roland Marschall <i>Bayreuth, Germany</i>	O09 Neglected Role of Surfactant Tail on Modulating Metallic Pt Content in Y6 Nanoparticles for Photocatalytic Hydrogen Evolution Zeinab Hamid <i>University of Oxford, UK</i>	E04 Pivotal proton-coupling of electron transfer in the oxygen evolution reaction – from biology (photosystem II) to inorganic oxyhydroxides Holger Dau <i>Freie Universität Berlin, Germany</i>
16:30	I13 Rational design of Zn:Sn overlayers to enhance the water splitting kinetics of hematite photoanodes Alejandro Galán-González <i>Instituto de Carboquímica, Spain</i>	O10 Controlling formation, performance, and degradation in bulk heterojunction organic nanoparticle photocatalysts Arnau Bertran <i>EPFL, Switzerland</i>	E05 Unraveling the Role of Crystal Structure and Polarization in Bi-Fe-O for Oxygen Evolution Reaction Shaswati Jyoti <i>Institute of Nano Science and Technology, India</i>

		Light storage in transition metal oxides Yang Wang <i>Max Planck Institute for Solid State Research, Germany</i>		Insights into Charge Dynamics in Y6-Based Heterojunction Organic Nanoparticles for Hydrogen Evolution Keren Ai <i>Imperial College London, UK</i>		Hierarchical (Ni, Co)_{2-x}Se Sheets as Efficient Electrocatalysts for Oxygen Evolution Reaction: Synergizing Fabrication Control with Mechanistic Insights Muhammad Sohail Riaz <i>University of Galway, Ireland</i>
16:50	I14		O11		E06	
17:10	I15	Unassisted solar syngas production by a molecular dye-cobalt catalyst assembly in a tandem photoelectrochemical cell Murielle Chavarot-Kerlidou LCBM, Grenoble, France	O12	Towards stable solar hydrogen generation by tandem organic bulk heterojunction photoanodes Matyas Daboczi <i>Centre for Energy Research, Institute of Technical Physics and Materials Science, Hungary</i>	E07	Impact of cobalt intercalation on the electrochemical properties of layered birnessite under water oxidation potentials Sid Halder <i>Imperial College London, UK</i>
17:30	Flash poster presentations		Flash poster presentations			Flash poster presentations
17:50	Poster session 1					
19:20	Close					

Thursday 4 September 2025

	Session chair: Martijn Zwijnenburg					
09:00	PL05 - Title TBC Andy Cooper University of Liverpool, UK					
09:45	PL06 - Title TBC Xinchen Wang Fuzhou University, China					
10:30	Refreshments					
	Devices		Organic		Electrocatalysis	
	Session chair: Seb Sprick		Session chair: Bill Tumas		Session chair: TBC	
11:00	K07	Coupling hydrogen production and upgrading of chemicals in oxide-based photoelectrochemical device Fatwa Abidi City University of Hong Kong, Hong Kong	K08	Realising solar fuel technologies: the role of international co-operation Junwang Tang Tsinghua University, China	K09	Colloidal nanocrystals to define design rules for selective and stable catalysts in CO2 and CO electroreduction Raffaella Buonsanti EPFL, Switzerland
11:30	D01	Design and optimization of a 30 cm2 membraneless photoelectrochemical flow device Sven Schneider Helmholtz-Zentrum Berlin, Germany	O13	A Light(er) Approach towards Sustainable Solar Fuel Production: Curious Case of Heptazines Kamalakkannan Kalliasam INST, India	E08	The dual role of redox mediators in electrochemical CO2 capture and conversion Sonja Pullen University of Amsterdam, Netherlands
11:50	D02	Perovskite-BiVO4 Tandem Devices for Scalable Solar Fuel Production Virgil Andrei University of Cambridge, UK	O14	Vapor-phase synthesis of potassium-ion-doped polymeric carbon nitride panels for efficient photocatalytic oxygen reduction Devesh Garg Ben-Gurion University of the Negev, Israel	E09	Iodide-mediated CO2 electroreduction for efficient and selective electrosynthesis of C2+ chemicals over CuI microcrystals Chia-Yu Lin National Cheng Kung University, Chinese Taipei
12:10	D03	Development and on sun field testing of photoelectrochemical reactors for scaling-up solar hydrogen production George Creasey Imperial College London, UK	O15	Coalescing solar-to-chemical and carbon circular economy: Mediated by metal-free triazine and porphyrin-based porous organic polymer under natural sunlight Neha Saini Lunch	E10	Towards scalable CO2 reduction by molecular electrocatalysts in bipolar membrane electrolyzers Bhavin Sirtanaratkul University of Liverpool, UK
12:30	13:15 Making science greener: sustainable laboratories (RSC)					
	Devices		Biological		Electrocatalysis	
	Session chair: Libby Gibson		Session chair: TBC		Session chair: TBC	
14:00	D04	Triplet-Triplet Annihilation Upconversion for Overall Photocatalytic Water Splitting Gregory F Metha University of Adelaide, Australia	B04	Microbial Photohybrids for Semi-artificial Photosynthetic CO2-to-Chemical Conversion Cathal Burns Northumbria University, UK	E11	Indoor Renewable Energy: Harnessing Artificial Leaves for Hydrogen Generation Ji-Hyun Jang UNIST, Korea
14:20	D05	Pilot scale deployment electrolyzer of CO2 direct air capture Tanushree Ghosh University of Toronto, Canada	B05	Solvent engineering for oxygen-tolerant solar fuel generation Moritz Kuhnelt University of Hohenheim, Germany	E12	Exploring Reversible Electrocatalytic Hydrogen Production/Oxidation with a DuBois Complex Immobilized on an Edge-Plane Graphite Electrode Sriram Katipamula LCBM, Grenoble, France
14:40	D06	demonstrating solar ethylene production, reactor integration in multi-step conversion from H2O and CO2 Pau Farràs Costa University of Galway, Ireland	B06	Semi-artificial photosynthesis for solar fuel production Yongpeng Liu University of Cambridge, UK	E13	Degradation studies on multi-metallic electrocatalysts for low grade water electrolysis Suraj Gupta Jozef Stefan Institute, Slovenia
15:00	D07	Diurnal Considerations of a Three-Terminal Tandem Photoelectrodes for Solar Fuel Production Darci Collins National Renewable Energy Lab/ Colorado School of Mines, USA	B07	Novel semi-artificial enzyme- and bacteria-inorganic hybrids for light-driven valorisation of CO2 and H2O to fuels and chemicals Santiago Rodriguez Jimenez University of Cambridge, UK	E14	Role of the Oxide Species in Ni-based Catalysts for Alkaline Water Electrolysis Yifeng Wang Imperial College London, UK
15:20	Refreshments					
	15:40 Policy/funding panel session					
	Inorganic		Biological		Electrocatalysis	
	Session chair: TBC		Session chair: TBC		Session chair: TBC	
16:20	I16	Charge carrier collection at buried Cu(In,Ga)S2 interfaces with opaque front contact for photoelectrochemical hydrogen generation Valentina Corsetti University of Bristol, UK	B08	Autotrophic growth of Escherichia coli biomass through semi-artificial photosynthesis Lin Su Queen Mary University of London, UK	E15	Ammonia production via electrochemical dinitrogen reduction: addressing parameters control in the metal-mediated systems Anna Mangini Politecnico di Torino, Italy
16:40	I17	Driving Photoelectrochemical Reactions on Bare Cu(In,Ga)S2 Surface: Addressing the Stability and Selectivity Challenge in Photocathode Materials Sudhanshu Shukla IMEC, Belgium	B09	Enhancing Acetate Production in Synechocystis PCC 6803: A Farmer Strain for Photosynthetic Butanol Production Stamatina Roussou Uppsala University, Sweden	E16	Laser-Driven Solid-State Route to Ultrasmall Nanocatalysts Huize Wang Helmholtz-Institut Erlangen-Nürnberg für Erneuerbare Energien (HIERN), Germany
17:00	I18	Tuning the intrinsic catalytic activity of W and V doped MoSx for hydrogen evolution reaction Ching Thian Moi French Alternative Energies and Atomic Energy Commission (CEA), Grenoble, France	B10	A robust, versatile biohybrid assembly for solar chemical generation Motair Rahaman University of Liege, Belgium	E17	Theory Guided Design of MoO3/NiMoO4 Heterostructures Hybridized Active Pt co-catalyst for Efficient Water Splitting Nikhil Komalla The Pennsylvania State University, USA
17:20	Flash poster presentations		Flash poster presentations		Flash poster presentations	
17:40	Poster session 2					
19:10	Close and walk to conference banquet					
19:30	Conference banquet					

Friday 5 September 2025

Session chair: Libby Gibson						
09:00	PL07 - Title TBC Sophia Haussener <i>École Polytechnique Fédérale de Lausanne (EPFL), Switzerland</i>					
09:45	PL08 - Liquid Sunlight®, Made from CO₂ Peidong Yang <i>University of California, Berkeley, USA</i>					
10:30	Refreshments					
Inorganic		Biological		Electrocatalysis		
Session chair: TBC		Session Chair: TBC		Session chair: TBC		
11:00	I19	2024 Beilby Medal and Prize Developing stable inorganic light harvesters for PECs – defect tolerance and electron-phonon coupling Robert Hoyer <i>University of Oxford, UK</i>	K10	11:00 Title TBC Yannis Ieropoulos <i>University of Southampton, UK</i>	E18	11:00 Mechanistic Understanding of Homogeneous and Heterogeneous Electrocatalysts for Energy Conversion Reactions Vincent Wang <i>National Sun Yat-Sen University, Chinese Taipei</i>
11:20	I20	Quantitative Analyses of Photovoltages and Electron Transfer Kinetics at Illuminated p-Si Hybrid Photoelectrodes Renato Sampaio, UNC Chapel Hill, USA	B12	11:30 Harnessing natural oxygenic photosystem for sustainable hydrogen production via biophotovoltaics Bin Lai <i>Helmholtz Center for Environmental Research - UFZ, Germany</i>	E19	11:20 A Geometric Interpretation of Kinetic Zone Diagrams for Mechanistic Understanding of Electrocatalytic Systems Ben Johnson <i>Technical University of Munich (TUM), Germany</i>
11:40	I21	Investigating photovoltage in Fe₂O₃ photoanodes Louise Oldham <i>Imperial College London, UK</i>	B13	11:50 Guided Re-design of 3D Porous Electrodes for Biophotoelectrochemical Systems Linying Shang <i>University of Cambridge, UK</i>	E20	11:40 Ligand-based oxidative and reductive catalysis Javier Concepcion <i>Brookhaven National Lab, USA</i>

12:00	I22	Simulation of Photoinduced Processes in Photoelectrochemical Cells for Solar Fuel production Jan Paul Menzel Yale University, USA	B14	12:10	Microbial photohybrids for solar fuel and chemical production from carbon dioxide Shafer Kaidith Northumbria University, UK	E21	12:00	
12:20		ECR best talk		12:30	ECR best talk		12:20	ECR best talk
12:40		Closing remarks						
		Lunch and close of conference						