

Tuesday 2 September 2025						
10:00	Registration					
12:30	Lunch					
13:30	<b>Welcome &amp; introductions</b> Alex Cowan <i>University of Liverpool, UK</i> Jenny Zhang <i>University of Cambridge, UK</i> Session chair: Alex Cowan					
13:45	<b>PL01 - The Secret Life of Electrocatalysts unveiled by Operando Spectroscopy and Microscopy</b> Beatriz Roldan Cuenya <i>Fritz-Haber-Institut der Max-Planck-Gesellschaft, Germany</i>					
14:30	<b>PL02 - Artificial Z-Scheme for Photocatalytic CO2 Reduction Using Molecular Photocatalysts as Key Players</b> 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	Microbial photohybrids for solar fuel and chemical production from carbon dioxide Shafeer Kalathil <i>Northumbria University, UK</i>	E01	CO2/CO-to-C3+ products electrochemical conversion for dinuclear cuprous molecular catalysts Naonari Sakamoto <i>Toyota Central R&amp;D Labs Inc., Japan</i>
16:35	I02	Developing photoelectrochemical water splitting devices - from understanding charge carrier behaviour to testing prototypes in the field Andreas Kafizas <i>Imperial College London, UK</i>	B02	Light-driven electron transfer and CO2-reduction at and across artificial lipid bilayers Andrea Pannwitz <i>Friedrich Schiller University Jena, Germany</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 Sascha Ott <i>Uppsala University, Sweden</i>	B03	A Versatile Bioconjugation Strategy for Photosystem II Engineering in Cyanobacterial Biohybrids Hyeryeong Lee <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

		Session chair: Julea Butt PL03 - 2024 Tilden Prize for Chemistry Solar Chemistry: Translating Concepts into Technologies Erwin Reisner University of Cambridge, UK		
09:00				
		PL04 - Living bio-nano systems for solar hydrogen production Kara Bren University of Rochester, USA		
09:45				
10:30		Refreshments		
		Inorganic	Organic	
		Session chair: TBC	Session chair: TBC	
			Advanced methods	
			Session chair: TBC	
11:00	K04	Title TBC Marcella Bonchio University of Padova, Italy	K05 Title TBC Haining Tian Uppsala University, Sweden	K06 Charge carrier dynamics in organic semiconductor photocatalysts James Durrant Imperial College London, UK
11:30	I04	Light-driven catalysis of the CO2 reduction reaction using heptacoordinated cobalt and iron complexes Mirco Natali University of Ferrara , Italy	O01 Rational design of organic conjugated polymers for efficient photocatalysis Xiong Cheng Fuzhou University, China	A01 Catalyzing Change: The Role of Multifunctional Materials in Solar-chemistry technologies Victor A. de la Peña O'Shea IMDEA Energy Institute, Spain
11:50	I05	Integrated Experimental and Theoretical Investigation of Photocatalytic CO2 Conversion to Hydrocarbons: Unraveling Mechanisms and Reaction Pathways SU IL In Daegu Gyeongbuk Institute of Science and Technology, South Korea	O02 Metal- and solvent-dependent recombination pathways in organic photocatalyst systems Sam Hillman Imperial College London, UK	A02 Full ThrOTTLE tr-IR: Time resolved IR Spectroelectrochemistry with Controlled Sample Throughput for the Investigation of (Catalytic) Redox Intermediates Kerstin Oppelt University of Zurich, Switzerland
12:10	I06	Realization of a Photoelectrochemical Cascade for the Generation of Methanol Grace Rome Colorado School of Mines/National Energy Laboratory, US	O03 Floatable composites for solar chemistry at the liquid-liquid interface Andrea Rogolino University of Cambridge, UK	A03 Tracking interfacial redox dynamics of photoanodes by operando X-ray Absorption Spectroscopy Raffaello Mazzaro University of Bologna, Italy
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	Connecting the Dots for How Highly Nonuniform Nanoreactors + Discrete Photon Absorption Events + Stochastic Charge Separation = Near-Perfect Water Splitting Shane Ardo UC Irvine, USA	O04 Photocatalytic hydrogen production coupled to glucose oxidation using a conjugated polyelectrolyte photocatalyst. Rhys Bourhill University of Strathclyde, UK	A04 High throughput experimentation for solar fuels materials and methods—12 years of deployment and discovery Joel Haber California Institute of Technology, USA
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 Chiba University, Japan	O05 Ielectric bias-free solar-to-hydrogen peroxide conversion in a photoelectrochemical cell using an organic polymer photocathode Masayuki Yagi Niigata University, Japan	A05 Visualizing Spin Selective Electron Dynamics in Yttrium Iron Garnet Photoanodes Using Ultrafast, Circularly Polarized XUV Light Robert Baker Ohio State University, USA
14:40	I09	Biomimetic photocatalytic N2 fixation based on MOFs Ling Wu Fuzhou University, China	O06 Boosting Solar Fuel and Chemical Production with Organic Heterojunctions and Hybrids Salvador Eslava Imperial College London, UK	A06 Microkinetic modelling of photocatalytic oxidation processes for sustainable hydrogen production Sergio Vernuccio University of Southampton, UK
15:00	I10	Photocatalytic CO2 Reduction with Oxygen-Tolerance Hua Sheng Institute of Chemistry, Chinese Academy of Sciences, China	O07 Decoupled Solar Energy Conversion and Storage in a Two-Dimensional Covalent Organic Framework Photoanode Bibhuti Bhusan Rath Maz Planck Institute for Solid State Research, Germany	A07 Unravelling Charge Carrier Dynamics in Nanostructured Photoelectrodes for Water Splitting Via Intensity-Modulated Photocurrent Spectroscopy. Juan Carlos Exposito Galvez Universidad Pablo de Olavide, Spain
15:20	I11	Nanoscale Strategies for Directing the Enhancement in Plasmon Enhanced Electrocatalysis: Insights and Challenges Andrew Bagnall Uppsala University, Sweden	O08 Probing and tuning of ion-mediated excitonic effects organic photocatalysts Filip Podjaski Imperial College London, UK	A08
15:40		Refreshments		
		Inorganic	Organic	Electrocatalysis
		Session chair: TBC	Session chair: TBC	Session chair: TBC
16:10	I12	Title TBC Roland Marschall Bayreuth, Germany	O09 Neglected Role of Surfactant Tail on Modulating Metallic Pt Content in Y6 Nanoparticles for Photocatalytic Hydrogen Evolution Zeinab Hamid University of Oxford, UK	E04 Pivotal proton-coupling of electron transfer in the oxygen evolution reaction – from biology (photosystem II) to inorganic oxyhydroxides Holger Dau Freie Universitat Berlin, Germany
16:30	I13	Rational design of Zn:Sn overlayers to enhance the water splitting kinetics of hematite photoanodes Alejandro Galán-González Instituto de Carboquímica, Spain	O10 Controlling formation, performance, and degradation in bulk heterojunction organic nanoparticle photocatalysts Arnaud Bertran EPFL, Switzerland	E05 Unraveling the Role of Crystal Structure and Polarization in Bi-Fe-O for Oxygen Evolution Reaction Shawswati Jyoti Institute of Nano Science and Technology, India
16:50	I14	Decoupling of Light and Dark Reactions in a 2D Niobium Tungstate for Light-Induced Charge Storage and On-Demand Hydrogen Evolution Yang Wang Max Planck Institute for Solid State Research, Germany	O11 Insights into Charge Dynamics in Y6-Based Heterojunction Organic Nanoparticles for Hydrogen Evolution Keren Ai Imperial College London, UK	E06 Hierarchical (Ni, Co)0.4Se Sheets as Efficient Electrocatalysts for Oxygen Evolution Reaction: Synergizing Fabrication Control with Mechanistic Insights Muhammad Sohail Riaz University of Galway, Ireland
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 Centre for Energy Research, Institute of Technical Physics and Materials Science, Hungary	E07 Impact of cobalt intercalation on the electrochemical properties of layered birnessite under water oxidation potentials Sid Halder Imperial College London, UK
17:30		Flash poster presentations	Flash poster presentations	Flash poster presentations
17:50			Poster session 1	
19:20			Close	

	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: TBC		Session chair: TBC	
11:00	K07	Coupling hydrogen production and upgrading of chemicals in oxide based photoelectrochemical device Fatwa Abdi City University of Hong Kong, Hong Kong	K08	Title TBC 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 Kamalakanan Kailasam 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 Creassey 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 Institute of Nano Science and Technology, India	E10	Towards scalable CO2 reduction by molecular electrocatalysts in bipolar membrane electrolyzers Bhavin Siritanaratkul University of Liverpool, UK
12:30	Lunch					
	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 Farrás 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	B08	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	B09	Autotrophic growth of Escherichia coli biomass through semi-artificial photosynthesis Lin Su Queen Mary University of London, UK	E12	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	B10	Enhancing Acetate Production in Synechocystis PCC 6803: A Farmer Strain for Photosynthetic Butanol Production Stamatina Roussou Uppsala University, Sweden	E13	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	B11	A robust, versatile biohybrid assembly for solar chemical generation Motair Rahman University of Liege, Belgium	E14	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					

	Session chair: Libby Gibson											
09:00	PL07 - Title TBC Sophia Haussener École Polytechnique Fédérale de Lausanne (EPFL), Switzerland											
09:45	PL08 - Liquid Sunlight®, Made from CO2 Peidong Yang University of California, Berkeley, USA											
10:30	Refreshments											
11:00	Inorganic Session chair: TBC				Biological Session Chair: TBC				Electrocatalysis 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 Hoye University of Oxford, UK			K10	11:00	Title TBC Yannis Ieropoulos University of Southampton, UK			E15	11:00	Mechanistic Understanding of Homogeneous and Heterogeneous Electrocatalysts for Energy Conversion Reactions Vincent Wang National Sun Yat-Sen University, Chinese Taipei
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 Helmholtz Center for Environmental Research - UFZ , Germany			E16	11:20	A Geometric Interpretation of Kinetic Zone Diagrams for Mechanistic Understanding of Electrocatalytic Systems Ben Johnson Technical University of Munich (TUM), Germany
11:40	I21	Investigating photovoltage in Fe2O3 photoanodes Louise Oldham Imperial College London, UK			B13	11:50	Guided Re-design of 3D Porous Electrodes for Biophotoelectrochemical Systems Linying Shang University of Cambridge, UK			E17	11:40	Ligand-based oxidative and reductive catalysis Javier Concepcion Brookhaven National Lab, USA
12:00	I22	Simulation of Photoinduced Processes in Photoelectrochemical Cells for Solar Fuel production Jan Paul Menzel Yale University, USA			B14	12:10	Semi-artificial leaf interfacing organic semiconductors and enzymes for solar fuel synthesis Celine Wing See Yeung University of Cambridge, UK			E18	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											