

2025 International solar fuels early-career researcher conference

Draft programme

1 September 2025

12:30	Registration & icebreaker Lunch
13:50	Day 1 welcome Chen Han <i>University of Cambridge, UK</i>
	SESSION 1 (Session chair: Ewan McQueen)
14:00	Interface engineering of cerium dioxide enables CO₂ photoreduction to green methanol Subhajit Chakraborty, Sebastian C. Peter <i>Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India</i>
14:15	Light-Driven CO₂ Reduction with a Heptacoordinated Iron(II) Polypyridine Complex Federico Droghetti <i>University of Ferrara, Italy</i>
14:30	Photocatalyst sheet performance under elevated UV intensities and temperatures Talib Rahman; Gregory Metha <i>University of Adelaide, Australia</i>
14:45	Photoelectrochemical biomass valorisation using an integrated PV-PEC approach Irene Carrai, Raffaello Mazzaro <i>Alma Mater Studiorum University of Bologna, Italy</i>
15:00	Size effect of Au NPs growth on a perylene-functionalised COF for light driven CO₂ to Syngas conversion Roberto Gonzalez Gomez <i>University of Galway, Ireland</i>
15:15	Ferroelectric–photocatalyst nanocomposites for enhanced solar fuel generation Max Court <i>Queen Mary University of London, United Kingdom</i>
15:30	Refreshments
	SESSION 2 (Session chair: Nathaniel Hill)
16:00	Enhancing Water Splitting Photoanodes with Plasmonic Metal Nanoparticles Brian Tam, Andreas Kafizas <i>Imperial College London, United Kingdom</i>
16:15	A Ni based OER photoanode for CO₂RR photoelectrochemical stacks Aureliano Macili <i>Autonomous University of Barcelona, Spain</i>
16:30	Engineering Charge Transfer Pathway in Z-scheme FeOOH/PCN towards Photocatalytic CO₂ Reduction Shangcong Sun; Bing Liu <i>SINOPEC Research Institute of Petroleum Processing, China</i>
16:45	Selective Photoelectrochemical reforming of Biomass Intermediates Catalyzed by In-Situ Fabricated C₃N₃ Electrode on Cu Foil Muhammad Ashraf <i>University of British Columbia, Canada</i>
17:00	Photoaccumulation of Long-Lived Reactive Electrons in Metal-Organic Frameworks: Unveiling Structure-Activity Relationships for Dark Photocatalysis Shilin Yao <i>Imperial College London, United Kingdom</i>
17:15	Probing in situ conductivity changes under the acidic water oxidation conditions using the interdigitated electrodes Guangmeimei Yang <i>Imperial College London, United Kingdom</i>
17:30	Poster session (odd numbers 17:30-18:30, even numbers 18:30-19:30) Refreshments
19:30	Close of formal sessions
	Evening social events

2 September 2025

08:55	Day 2 welcome
	SESSION 3 (Session chair: Cathal Burns)
09:00	Engineering Microbe-Material Interface to produce Solar Chemicals and Fuels from CO₂ Muhammed Rishan <i>Northumbria University Newcastle, United Kingdom</i>
09:15	Expanding solar spectrum utilisation of thylakoid membranes with organic dyes Lan Nan <i>University of Cambridge, United Kingdom</i>
09:30	O₂-Tolerant Electro- and Photocatalytic CO₂-to-CO Conversion by carbon monoxide dehydrogenases operating in Deep Eutectic solvents Leonard Olivotto <i>DCM/Université Grenoble Alpes, France</i>
09:45	Electrochemical wiring of cyanobacteria to anodes using polymers towards biohybrid devices for solar-chemical production Rachel Egan <i>University of Cambridge, United Kingdom</i>
10:00	Hybrid artificial and natural light-driven pilot plant for photocatalytic water-splitting Ahmed Abbas, Konstantinos Kakosimos <i>Texas A&M University at Qatar, Qatar</i>
10:15	Scalable solar-driven reforming of alcohol feedstock to H₂ using Ni/Zn₃In₂S₆ photocatalyst Denny Gunawan <i>University of New South Wales, Australia</i>
10:30	Refreshments
	SESSION 4 (Session chair: Chen Han)
11:00	TBA Vincent Artero <i>Université Grenoble Alpes, France</i>
11:20	TBA Elizabeth Gibson <i>University of Newcastle, UK</i>
	SESSION 5 (Session chair: Robert Bowles)
11:40	Career panel discussion Chair: Robert Bowles, <i>Royal Society of Chemistry</i> Panellists: Vincent Artero, <i>Université Grenoble Alpes, France</i> ; Emma Eley, <i>Royal Society of Chemistry, UK</i> ; Elizabeth Gibson, <i>University of Newcastle, UK</i>
12:30	Close Lunch