

Department of Chemical Engineering
Imperial

| Poster | Presenter | Poster title |
|--------|---------------------------|---|
| 1 | Abdullah Bahamdan | Sketch2Simulation: Automating Flowsheet Generation via Multi Agent Large Language Models |
| 2 | Maria Victoria Bussoletti | Membranes matter in cell-free: lipids and microsomes to broaden the CFPS toolbox |
| 3 | Zain Ahmad | Microfluidic Platform for Sustainable Cleaning |
| 4 | Lu Ai | Hydrogen-Brine Interfacial Tension: Effects of Pressure, Temperature, and Brine Composition |
| 5 | Cariny Polesca | Lignocellulosic biomass valorisation and high-purity cellulose production using a cost-effective protic ionic liquid |
| 6 | Rui Wu | Engineering genetic switches for conditional humanized glycosylation in <i>Pichia pastoris</i> |
| 7 | Riley Latcham | A New Spin On Hydrogen: Speed of Sound & Raman Spectroscopy |
| 8 | Elisa Solvay | Metal Nitrogen-doped Carbon Catalysts for the Sustainable Electroreduction of Carbon Dioxide into Value-added chemicals |
| 9 | Qiao Yan Soh | Supply-Chain Optimisation of Sludge-Derived Biocoal and Hydrogen for DRI-EAF Steel Production: A Case Study |
| 10 | Aubin Ramon | AbMODIF: multi-objective optimisation of antibodies with diffusion-based inverse folding |
| 11 | Sharwari Dixit | Distributional Impacts of UK Energy Transition Policies on Household Consumers: an Agent-based Whole Systems Modelling Approach |
| 12 | Robert Hunter | Structure-property relationships in lignin-derived carbon nanofibers for freestanding supercapacitor electrodes |
| 13 | Ari Luna | AI-Driven Automated Plantwide Control Design and Tuning: Towards Modular Reconfigurable Manufacturing |
| 14 | Tammo Dukker | Generative Molecular Design for Next-Generation Data Centre Coolants |
| 15 | Alice Grob | Cultivated meat: expanding the toolbox for host aware engineering |
| 16 | Eleni Chalasti | The Hidden Cost of Weather Averaging: Temporal Aggregation Bias in Material-Specific S-TVSA DAC Across UK Industrial Clusters |
| 17 | Sifeng Lucy Chen | Synthetic cells with density,Å-dependent sensing and collective gene activation |

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| 18 | Alex Glover | Cycle Synthesis and Optimisation of Pressure-Vacuum Swing Adsorption Process for Post Combustion CO ₂ Capture |
| 19 | Siyu Guo | A Roadmap for Hydrogen Recovery from Ammonia: Integrated System and Reactor Design for Transportation Application. |
| 20 | Xuemin Chen | Ultrasound-Triggered Artificial Organelles for Remote Activation of Synthetic Cells and Communication with Living Cells |
| 21 | Beatriz Felices Rando | Innovation priorities for economic and sustainable cultivated meat production at scale |
| 22 | Lifeng Zhang | Embedding Group-Contribution Machine Learning Surrogates for Phase Stability in Crystallisation Process Optimisation |
| 23 | Ines Perez Tabarnero | MEA-ningful carbon capture and conversion |
| 24 | Adela Jiaxu Li | Predicting Peptide Solubility Using Immobilised Bilayer Chromatography |
| 25 | Michael Leahy | Quantum chemical calculations for application-relevant physical properties in acid corrosion inhibitors |
| 26 | Jianing Li | Crystallisation of Therapeutic Peptides Using Templating Strategies |
| 27 | Gaurav Seth | Assessing the Impact of Solvent Recycling in Cooling Crystallization using Computer-Aided Molecular and Process Design |