

UKPorMat 2024 Programme

Day 1 – Tuesday 4th June 2024

9:30 - 10:20	Registration <i>Central Teaching Hub, University of Liverpool, L69 7BX</i>
10:20 – 10:30	Alexandros Katsoulidis, University of Liverpool Opening remarks
Session 1	Chair: Alexandros Katsoulidis, <i>University of Liverpool</i>
10:30 – 11:10	Omar Farha, Northwestern University Myths versus Reality: Smart and Programmable Crystalline Sponges from Basic Science to Implementation and Commercialization <i>Sponsored by Verder Scientific</i>
11:10 – 11:30	Russell Morris, University of St Andrews MOF-polymer composites in extruded cardiovascular catheters to overcome complications in heart procedures
11:30 – 11:50	Darina Francesca Pichi, Imdea Energy Smart drug nanocarriers: harnessing the synergy of inorganic nanoparticles and metal-organic frameworks in nanocomposites
11:50 – 12:10	Ikeda Trashi, University of Texas at Dallas Whole-cell therapeutic and prophylactic vaccines against UTI using Metal-Organic Framework
12:10 – 12:20	Mark Benson, Rigaku The XtaLAB Family: Single Crystal Diffractometers for all porous materials and crystal sizes
12:20 – 13:30	<i>Lunch break</i>
Session 2	Chair: Robert Dawson, <i>University of Sheffield</i>
13:30 – 13:50	Emma Wolpert, Imperial College London Interplay of shape and interactions for porous molecular cage crystals
13:50 – 14:10	Arun Gopalan, University of Manchester Advanced Characterization and Featurization of MOF Pores for Adsorption
14:10 – 14:30	Corraine McCreedy, University of Strathclyde Are Generic Force Fields Adequate for Modelling Gas Adsorption in MOFs?
14:30 – 14:50	Krunoslav Uzarevic, Ruder Boskovic Institute Green and rational synthesis of porous MOFs and their non-conventional forms via mechanochemistry
14:50 – 15:20	<i>Break</i>
Session 3	Chair: Lauren McHugh, <i>University of Liverpool</i>
15:20 – 15:40	Qiang Zhu, University of Liverpool Soft Hydrogen-Bonded Organic Framework Constructed Using a Flexible Organic Cage Hinge
15:40 – 16:00	Abbie Scholes, University of Liverpool Solid State Behaviour of Substituted Isotrianglimines
16:00 – 16:20	James Bour, Wayne State University Relationships between defectivity and porosity in microporous organic polymers
16:20 – 17:00	Magda Titirici, Imperial College London Porous carbon materials as Na ion battery anodes and electrocatalysts for the oxygen reduction reaction in fuel cells <i>Sponsored by Materials Advances</i>
17:00 – 18:30	Poster session <i>Sponsored by Leverhulme Research Centre for Functional Material Design</i>
18:30	Depart for conference dinner
19:00	Conference dinner, <i>Museum of Liverpool, L3 1DG</i>

Day 2 – Wednesday 5th June 2024

Session 4	Chair: Anna Slater, <i>University of Liverpool</i>
9:00 – 9:40	Peter Budd , <i>University of Manchester</i> Polymers of Intrinsic Microporosity (PIMs) and their Membrane Applications <i>Sponsored by Surface Measurements Systems</i>
9:40 – 10:00	Sara Rojas , <i>University of Granada</i> Metal-Organic Frameworks for Sustainable Agriculture
10:00 – 10:20	Yu Wang , <i>University of Oxford</i> Orientation-dependent gas sensing behaviour of Cu-HHTP MOF films
10:20 – 10:40	Sanjit Nayak , <i>University of Bristol</i> Metal-organic frameworks and their biodegradable polymer composites for controlled and sustainable delivery of herbicides
10:40 – 11:10	<i>Break</i>
Session 5	Chair: Tim Easun, <i>University of Birmingham</i>
11:10 – 11:30	Yujie Ma , <i>University of Manchester</i> Capture and Catalytic Conversion of Environmental Pollutants in Defective MOF Materials
11:30 – 11:50	Till Schertenleib , <i>EPFL</i> Defect Induced Anisotropic Node Distortion in Amorphous MOFs: Low-Valent Zr Sites as Catalytic Hotspots
11:50 – 12:10	Francesca Nerli , <i>Pisa University</i> Tuning of the CO ₂ adsorption mechanism in flexible F4_MIL-140A by ligand engineering
12:10 – 12:30	Mollie Trueman , <i>University of Manchester</i> Mechanistic understanding of MIL-53 microstructure evolution during breathing transformations revealed by in-situ atomic force microscopy
12:30 – 13:40	<i>Lunch break</i>
Session 6	Chair: Andrea Laybourn, <i>University of Nottingham</i>
13:40 – 14:20	Robert Mokaya , <i>University of Nottingham</i> Rational routes to porous carbons for sustainable energy applications
14:20 – 14:40	Lisa Sun , <i>Surface Measurements Systems</i> Influence of humidity on the sorption of CO ₂ in prototypical porous materials: insight and challenges
14:40 – 15:00	Jeroen Van den Reijen , <i>Avantium</i> Accelerated R&D for carbon capture and utilization – high throughput experimentation applied effectively to real world challenges
15:00 – 15:30	<i>Break</i>
Session 7	Chair: Ross Forgan, <i>University of Glasgow</i>
15:30 – 15:50	Poster prizes
15:50 – 16:10	Iryna Protsak , <i>University of Vienna</i> Selective extraction of critical elements by silica-based materials
16:10 – 16:30	Ruomeng Huang , <i>University of Southampton</i> Mesoporous silica diffusive memristors for neuromorphic computing
16:30 - 17:10	Wendy Queen , <i>EPFL</i> The design of highly porous materials for globally relevant gas and liquid separations <i>Sponsored by Avantium</i>
17:10	Ross Forgan , <i>University of Glasgow</i> Closing remarks