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International Association for Carbon Capture 2025 conference (IACC2025)

18-19 September, 2025
Birmingham

Organisation

International Association for Carbon Capture (IACC)

Host Organisation

University of Birmingham, UK

Co Organisation

Queen's University Belfast, UK

State Grid GEIRI EUROPE

Chair

Professor Chenggong Sun, University of Birmingham, UK

Co-Chairs

Professor Yongliang Li, University of Birmingham, UK

Professor Chunfei Wu, Queen's University Belfast, UK

Dr Geng Qiao, State Grid GEIRI Europe



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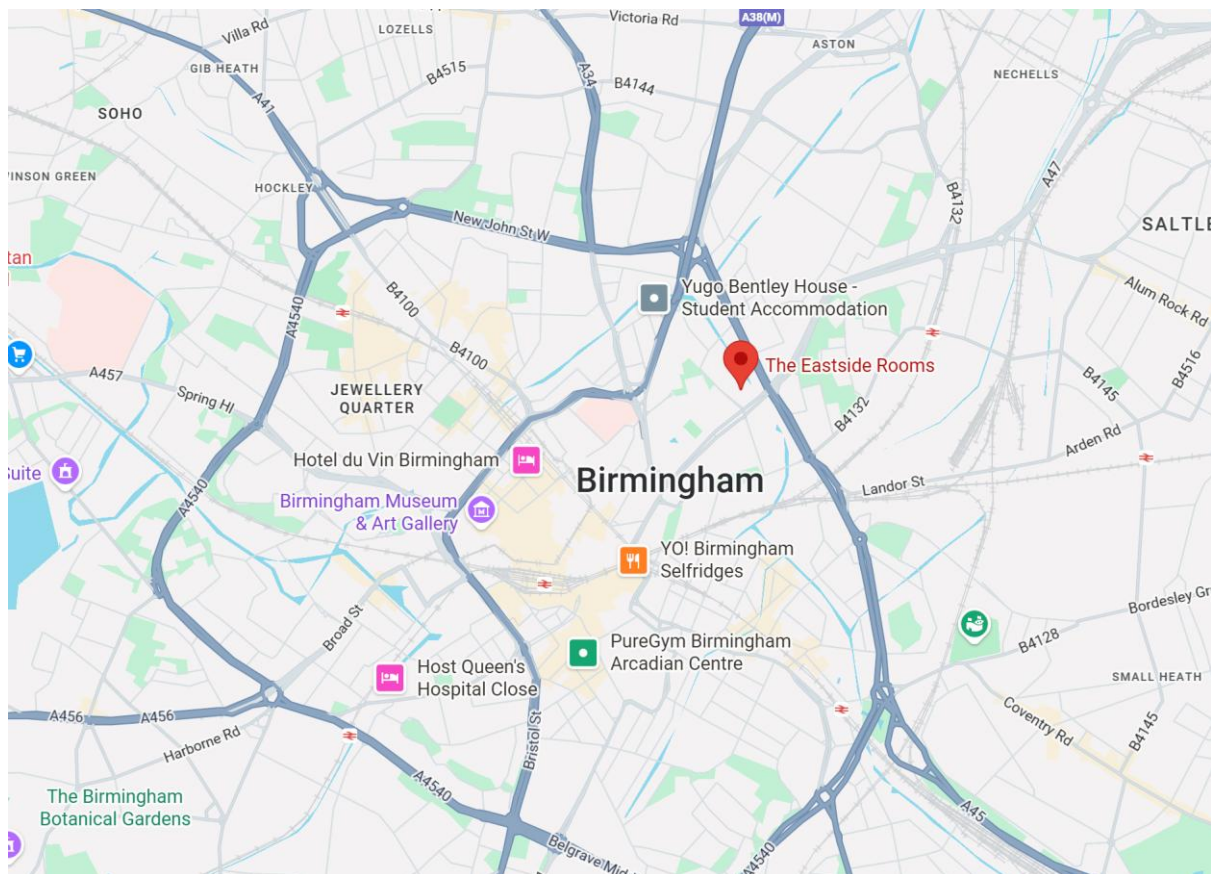
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Conference location:

The Eastside Rooms, 2 Woodcock Street,
Birmingham,
B7 4BL,
18-19 September 2025

<https://eastsiderooms.com/directions/>



International Association for Carbon Capture (IACC)

Webpage: <https://www.iaccr.org/>



Programme:

UK time (18 September 2025)			
09:00	Registration	The Eastside Rooms, 2 Woodcock Street, Birmingham, B7 4BL	
10:00	Opening & IACC-SMS awards		
10:20	Plenary 1 (Chair: Professor Chunfei Wu)	Anna Korre, Imperial College London	Human health risk assessment around amine based post-combustion carbon capture plants
11:10	Tea break		
Session chair: Dr Yeshui Zhang			
11:30	Keynote 1	Dr Paul Iacomi, Surface Measurement Systems	A holistic lab-scale evaluation of solid sorbents for carbon capture
12:00	Oral 1	Yaolin Wang, University of Liverpool	Plasma catalysis, CO ₂ hydrogenation, methanol synthesis, bimetallic catalyst
12:10	Oral 2	Jia Hu, Queen’s University Belfast	NiO/Na ₂ CO ₃ /Al ₂ O ₃ DFM development for medium temperature ICCU-methanation
12:20	Oral 3	Kofoworola Awodun, Brunel University of London	Surface porosity enhancement of bottom-ash-derived carbon using waste eggshell for carbon capture applications
12:30	Oral 4	Yaoyao Zheng, University of Nottingham	How do CaO/CuO materials evolve in integrated calcium and chemical looping cycles?
12:40	Lunch		
13:40	Annual General Meeting of IACC		
Session chair: Professor Yongliang Li			
14:10	Keynote 2	Lei Xing, University of Surrey	AI-enabled modelling of electrochemical CO ₂ reduction (eCO ₂ R): from process to system
14:40	Oral 5	Mengbin Li, University of Birmingham	Towards global net-zero: advanced material and process design for DAC and industrial CCS with CO ₂ utilisation
14:50	Oral 6	Michael Adedotun Oke, Michael Adedotun Oke Foundation	Optimizing charcoal marketing systems for enhanced efficiency in Gwagwalada, Abuja, Nigeria
15:00	Tea break		
Session chair: Dr Lei Xing			



15:20	Keynote 3 (online)	Hui Zhou, Tsinghua University	Impurities-induced challenges in CO ₂ hydrogenation
15:50	Oral 7 (online)	Omar Mohammad, Aston University	Utilising CO₂ to convert biomass phenolics into high-value hydroxybenzoic acids
16:00	Oral 8 (online)	Husain Bahzad, Public Authority of Applied Education and Training	Techno-economic analyses of a novel hydrogen production process via chemical looping water splitting, integrated with sorption enhanced water gas shift
16:10	Oral 9	Yi Cheng, University of Birmingham	Towards distributed renewable energy utilization: an intelligent thermal storage–pyrolysis coupled system
16:20	Tea break		
Session chair: Dr Yuanting Qiao			
16:40	Keynote 4	Siming You, University of Glasgow	Environmental impact assessment of waste management and applications of machine learning methods
17:10	Oral 10	Haolin Ju, University of Birmingham	Amine-impregnated resins for direct air capture: effects of resin structure, PEI loading and PEG on CO ₂ Adsorption Performance
17:20	Oral 11	Zongkun Chen, Global Energy Interconnection Research Institute Europe GmbH	The effect of oxygen-containing functional groups on oxygen reduction reaction activity in carbon-based catalysts
17:30	Oral 12	Andrew Wright, University of Manchester	Sour PSA for Lower Cost Hydrogen Production from Gasifiers
18:30	Dinner	Ming Moon Chinese Buffet Restaurant, 16 Hurst St, Birmingham B5 4BN	

UK time (19 September 2025)			
		The Eastside Rooms, 2 Woodcock Street, Birmingham, B7 4BL	
9:00	Plenary 2 (Chair: Professor Chenggong Sun)	Colin Snape, University of Nottingham	Overcoming the hurdles to develop cost-effective adsorbents for CO ₂ capture
9:50	Tea break		
Session chair: Professor Jude Onwudili			



10:10	Keynote 5	Cher Hon (Sam) Lau, The University of Edinburgh	Polymer membranes and framework materials for zero-waste, zero-carbon carbon capture, nanofiltration and water treatment
10:40	Oral 13	Yuanqing Qiao, Swansea University	H ₂ role in the techno-economic analysis of decarbonisation in steel industry
10:50	Oral 14	Xiaoqiang Zhang, Global energy interconnection research institution GmbH	Optimized nanowire surface growth for PTL protection
11:00	Oral 15	Hassan Chamas, Brunel University of London	Ash removal from tyre Char: a critical step towards high-performance activated carbon for CO ₂ capture
11:10	Tea break		
Session chair: Professor Cher Hon (Sam) Lau			
11:30	Keynote 6	Jude Onwudili, Aston University	Focusing on CO ₂ conversion into organic chemicals for large-scale global impact
12:00	Oral 16	Dacheng Li, University of Birmingham	Optimisation study on solid–gas sorption based thermal energy storage using artificial intelligence approaches
12:10	Oral 17	Agata Mlonka- Medrala, AGH University of Krakow	From ocean plastics to carbon materials via pyrolysis according to circular economy
12:20	Oral 18	Haiqing Sui, Hubei University of Technology	Experimental and numerical investigation on the gasification performance of bio-slurry derived from bio-oil and biochar
12:30	Lunch		
CUPOLA Session; Session chair: Professor Aneta Magdziarz			
 Funded by the European Union 			
13:30	Keynote 7	Aneta Magdziarz, AGH University of Krakow	CUPOLA Project: Key achievements, current progress, and strategic directions for second period
14:00	Oral 19	Marcin Sajdak, Silesian University of Technology	Marine plastic waste to resource: chemical recycling as a key to a low- carbon future
14:10	Oral 20	Jiawei Wang, Swansea University	High-value recycling of organic solid waste: A sustainable pathway to aromatic hydrocarbons
14:20	Oral 21 (online)	Yan Ma, Xi'an Jiaotong University	Separator catalytic reforming for H₂-rich syngas production using Li(NiCoMn)_{1/3}O₂ pre-catalysts derived from spent lithium- ion batteries



14:30	Oral 22 (online)	Guocheng Wang, Huazhong University of Science and Technology	Exploring the potential of hydrothermal waxes derived from polyethylene: Product characterization and insights from solvent effects
14:40	Oral 23 (online)	Zheng Wang, University of Nottingham Ningbo	Mechanical recycling and upcycling of marine macro- and micro- plastics: technologies, challenges, and future directions
14:50	Oral 24 (online)	Gillian Collins, Cork College University	Heterogeneous catalysts for depolymerisation
15:00	Awards and closing	Yeshui Zhang	



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