

# What could sustainable synthesis and catalysis make possible?

CHEMICAL SCIENCE SYMPOSIUM 2022

Fundamental questions  
Elemental answers

10-11 November  
2022

## Day 1 – 10<sup>th</sup> November

Time (UK time)		
09:30	Registration and refreshments	
10:30	Welcome and introduction Andrew Cooper, Editor-in-Chief <i>Chemical Science</i>	
10:35	Introduction to the Symposium May Copsey	
<b>Session 1</b> <b>Chair: Paolo Melchiorre</b>		
10:50	David MacMillan, Princeton University, USA <i>"New Chemical Reactions using New Activation Modes"</i>	Keynote (Inv 1) <b>In person</b>
12:00	Lunch and posters	
<b>Session 2</b> <b>Chair: Tim Noel</b>		
13:30	Matt Gaunt, University of Cambridge, UK <i>"New reactions to modify complex molecules"</i>	Inv.2 <b>In person</b>
14:05	Daniele Leonori, RWTH Aachen University, Germany <i>"New methods in Halogen-Atom Transfer (XAT)"</i>	Inv.3 <b>In person</b>
14:40	Danielle Schultz, Merck, USA <i>"Taming the unnatural – innovative non-canonical amino acid synthesis for drug discovery and beyond"</i>	Inv. 4 <b>In person</b>
15:15	Refreshments	
<b>Session 3</b> <b>Chair: Andrei Yudin</b>		
15:45	Shannon Stahl, University of Wisconsin-Madison, USA <i>"Aerobic oxidation methods for valorization of biomass and waste plastics"</i>	Inv.5 <b>Virtual</b>
16:20	Anne McNeil, University of Michigan, USA <i>"Synthetic Approaches to Sustainable Materials"</i>	Inv.6 <b>Virtual</b>

## Session 4: Flash poster session

Chair: May Copsey

16:55	Flash poster presentations (x5) <i>chosen from poster abstracts</i>	In person
17:30	Poster reception	
19:00	Close	

## Day 2 – 11<sup>th</sup> November

08:30	Refreshments	
09:00	Day 2 introduction and welcome (Chairs)	
<b>Session 5</b> Chair: Paolo Melchiorre		
09:10	Takashi Ooi, Nagoya University, Japan <i>"Asymmetric Catalysis of Designer Chiral Organic Ion Pairs"</i>	Inv.7 <b>Virtual</b>
09:45	Bin Tan, Southern University of Science and Technology, China <i>"Organocatalytic Asymmetric Synthesis of Axially Chiral Compounds"</i>	Inv.8 <b>Virtual</b>
10:20	Anat Milo, Ben-Gurion University of the Negev, Israel <i>"Learning from nature the hard way: Secondary sphere modification in organocatalysis"</i>	Inv.9 <b>In person</b>
11:00	Refreshments	
<b>Session 6</b> Chair: Andrei Yudin		
11:30	Debabrata Maiti, IIT Bombay, India <i>"En-Light-ening C-H functionalization"</i>	Inv.10 <b>In person</b>
12:10	Tim Noel, University of Amsterdam, Netherlands <i>"Innovation in HAT (hydrogen atom transfer) photocatalysis through use of flow"</i>	Inv.11 <b>In person</b>
12:45	Lunch	
<b>Session 7</b> Chair: May Copsey		

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13:45	Yang Li, Xi'an Jiaotong University, China <i>"Selective cleavage of inert chemical bonds in biomass for green hydrogen and aryl compounds"</i>	Inv. 12 <b>Virtual</b>
14:05	Rui Shang, University of Tokyo, Japan <i>"New transformations enabled by iron catalysis and their applications for electronic materials"</i>	Inv. 13 <b>Virtual</b>
14:25	Martina Delbianco, Max Planck Institute of Colloids and Interfaces, Germany <i>"Synthetic carbohydrate-based materials – A cellulose story"</i>	Inv. 14 <b>Virtual</b>
14:45	Francesca Paradisi, University of Bern, Switzerland <i>"Spheroplasts for membrane-bound catalysts"</i>	Inv. 15 <b>Virtual</b>
<b>Session 8</b> <b>Chair: Danielle Schultz</b>		
15:20	Nicholas Turner, University of Manchester, UK <i>"Discovery and Engineering of New Multifunctional Biocatalysts for Organic Synthesis"</i>	Inv.16 <b>In person</b>
15:55	Alison Narayan, University of Michigan, USA	Inv. 17 <b>Virtual</b>
16:30	Closing remarks and poster prize presentations Andrei Yudin and May Copsey	
16:45	Close of symposium	