



High Polymer Research Group

62nd Conference 2024

Shrigley Hall, Pott Shrigley, Cheshire

PROGRAMME

“Polymers in an Age of Data”

Sunday 28th April – Thursday 2nd May 2024

Programme organised by
Professor Cameron Alexander and Professor Matthew Gibson

The HPRG is pleased to acknowledge financial support
from the following companies



Monday 29th April

08:45	Professor Athene Donald Welcome to the 62 nd Meeting of the High Polymer Research Group	Chair, HPRG University of Cambridge
Session 1	High content data to inform polymer design and application Chair – Professor Lorna Dougan	
09:15	<u>Dr Debra J. Audus</u> Improving Machine Learning by Embedding and Extracting Polymer Knowledge.	NIST
10:15	<u>Dr Adam J. Gormley</u> Machine Learning for In Situ Synthesis and Formulation.	Rutgers University
11:15	Coffee	
	Chair – Dr Andrew Burgess	
11:45	<u>Professor Jacqui Cole</u> AI for Materials: Opportunities for Polymer Science?	University of Cambridge
13:00	Lunch	
15:15 – 16:45	Coffee and Tea	
Session 2	Polymer discovery in flow Chair – Dr Jerry Winter	
16:45	<u>Professor Tanja Junkers</u> Data driven polymer synthesis: Challenges and Opportunities.	Monash University
17:45	<u>Dr Nick J. Warren</u> Artificially Intelligent Flow Reactor Platforms for Accelerating Discovery of Next Generation Polymers.	University of Leeds

HPRG Council Meeting, Brabazon Suite, 19:00

Tuesday 30th April

Session 3 Synthesis and applications of polymers with complex sequences		
Chair – Professor Rachel O'Reilly		
09:15	<u>Professor Rongrong Hu</u> Multicomponent Polymerizations of Elemental Chalcogens.	South China University of Technology
10:15	<u>Professor Marloes Peeters</u> Biomimetic engineering: innovations inspired by nature.	University of Manchester
11:15	Coffee	
Chair – Dr Neal Williams		
11:45	<u>Professor Daniela Wilson</u> Encoding smart behaviour in polymers.	Radboud University
13:00	Lunch	
15:15 – 16:45	Coffee and Tea	
Session 4 Encoding function in polymers		
Chair – Professor Cameron Alexander		
16:45	<u>Professor Leonard Prins</u> Non-equilibrium chemical systems: preparation and applications.	University of Padova
17:45	<u>Professor Michael Meier</u> Unique sequence defined macromolecules: From synthesis and characterization to potential uses.	Karlsruhe Institute of Technology

Wednesday 1st May

Session 5 Machine learning and materials discovery		
Chair – Dr Gareth Crapper		
09:15	<u>Professor Kim Jelfs</u> Show me the data: computational discovery of (polymeric) materials.	Imperial College
10:15	<u>Dr Kevin Treacher</u> Macromolecules in Digital Age Medicines Development – An Industry Perspective.	AstraZeneca
11:15	Coffee	
Chair – Professor Athene Donald		
11:45	<u>Professor Andy Cooper</u> The mobile robotic polymer chemist: nice, but does it do RAFT?	University of Liverpool
12:45	Lunch	
15:15 – 17:00	Coffee and Tea	
Session 6 Polymers in data encoding and storage		
Chair – Professor Matt Gibson		
17:00	<u>Professor Filip Du Prez</u> Latest strategies for storing and reading data on sequence-defined macromolecules.	Ghent University
19:15	Drinks Reception	(Tilden Suite)
20:00	Conference Dinner	(Tilden Suite)