High Polymer Research Group

59th Conference 2019

Shrigley Hall, Pott Shrigley, Cheshire

PROGRAMME

Polymers for Sustainability and Energy

Sunday 28th April – Thursday 2nd May 2019

Programme organised by Professors Charlotte Williams and Ken Lewtas

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

Monday, April 29th

08.45 Professor Tony Ryan (University of Sheffield)

"*Welcome to the 59th Meeting of the High Polymer Research Group*"

Session 1: Sustainable Polymers

Chair: Professor Charlotte Williams (University of Oxford)

09.00 **Marc Hillmyer** (University of Minnesota)

"Degradable Block Polyesters from Renewable Resources"

10.00 **Karen Wooley** (Texas A & M University)

"*Natural Product Based Polymers that Address Food-Energy-Water Challenges*"

11:00 Coffee

Session 2: Functional Polyethylenes

Chair: Professor Eva Malmström Jonsson

11.30 **Stefan Mecking** (University of Konstanz)

"*Monomers and Main Chain Functional Polyethylenes from Catalytic Upgrading of Seed and Microalgae*"

12.30 Lunch

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15.15 – 17.00 Coffee and Tea

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Session 3: Polyethylenes

Chair: Dr Gareth Crapper (GDC consulting Ltd)

17.00 **Edmund Carnahan** (Dow)

"Tuning Polymer Properties for More Sustainable Solutions: The Development of Olefin Block Copolymers"

18.00 **Peter Scott** (University of Warwick)

"New Polyolefin-Polar Block Copolymers. From Concept to Business"

(HPRG Council Meeting, Brabazon Suite ~ 19.15)

Tuesday, April 30th

Session 4: Recycling Polymers and Polymer Electronics

Chair: Professor Darrin Pochan (University of Delaware)

09.00 **James Hedrick** (IBM)

"Upcycling of Poly(ethylene terephthalate) and Polycarbonate Refuse to Advanced Therapeutics"

10.00 **Natalie Stingelin** (Georgia Tech)

"Phase Diagrams of Complex Materials: From the Katana, Swiss Chocolates to Organic Energy-Harvesting Device Materials"

11.00 Coffee

(during the coffee break speakers and programme organisers are asked to assemble on the main staircase with the Chairman for a photograph that will be placed on the website)

Session 5: Sustainable Polyesters

Chair: Dr Jerry Winter (Unilever Research)

11.30 **Michael Shaver** (University of Manchester)

"Monomer Design for Functional and Sustainable Degradable Polyesters"

12.30 Lunch

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15.15 – 17.00 Coffee and Tea

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Session 6: Surfaces

Chair: Professor Joe Keddie (University of Surrey)

17.00 **Kathryn Beers** (NIST)

"Polymer Characterization of Plastic Debris in the Central Pacific or: How I Learned to Stop Worrying and Love Smelly Trash"

18.00 **Cor Koning** (DSM)

"Sustainable Coating Systems Based on Polycarbonates Made From CO_2 *and epoxides"*

Wednesday, May 1st

Session 7: Energy

Chair: Professor Rachel O’Reilly (University of Birmingham)

09.00 **Nitash Balsara** (University of California, Berkeley)

“Ohm's Law for Polymer Electrolytes”

10.00 **Hugo Bronstein** (University of Cambridge)

“*Precise Control of Excited States in Conjugated Polymers*”

11:00 Coffee

Session 8: Biomaterials

Chair: Dr Janette Jones (Unilever)

11.30 **Andrew Dove** (University of Birmingham)

“Chemical Design of ‘Smart’ Degradable Biomaterials”

12.30 Lunch

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15.15 – 17.15 Coffee and Tea

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Session 9: Polymers in the Desert!

Chair: Professor Charlotte Williams (University of Oxford)

17.15 **Tony Ryan** (University of Sheffield)

“Polyurethanes as Synthetic Soils: Hydroponics and Aquaponics in the Desert”

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19.15 Drinks Reception (Tilden Suite)

20.00 Conference Dinner (Tilden Suite)