



Advances in Polyolefins 2022

September 18-21, 2022

Rohnert Park, CA USA

SUNDAY, SEPTEMBER 18

2:00 PM	REGISTRATION	
3:00 PM	Jerzy Klosin Welcome and Introductory Remarks	
KEYNOTE ADDRESS SESSION		
<i>Discussion Leaders: Rick Register, Ken Wagener, Jerzy Klosin, João Soares</i>		
3:10 PM	Tobin Marks (Northwestern University) McGrath Lecture: <i>Catalysts and Processes for Rationally Creating New Polyolefins and Deconstructing Old Ones</i>	1
4:10 PM	Kim Ragaert (Maastricht University) <i>Using Polymer Science to Predict the Effective Quality of Cross-contaminated Recycled Polyolefins</i>	2
4:50 PM	Paul Chirik (Princeton University) <i>Chemically Recyclable Polyolefins</i>	3
5:30 PM	Bob Maughon (SABIC) <i>Delivering on a Sustainable Future for Plastics: The Necessity of Innovation, Collaboration and Embracing Risk</i>	4
6:20 PM	WELCOME RECEPTION AND POSTER SESSION	

MONDAY, SEPTEMBER 19

7:00 AM	CONTINENTAL BREAKFAST	
INVITED LECTURE SESSION II		
<i>Discussion Leader: Mari Rosen, Dow</i>		
8:00 AM	Carlos López-Barrón (ExxonMobil) <i>Polyolefin Ionomers: Synthesis, Rheology, and Flow-Induced Crystallization</i>	5
8:40 AM	Ken-ichi Seno (Sumitomo) <i>Vision for Polyolefin Sustainability at Sumitomo Chemical</i>	6
9:20 AM	Eugene Chen (Colorado State University) <i>Design of Functionalized Polyolefins and Polyolefin-like Polyesters with Closed-loop Recycling</i>	7
10:00 AM	BREAK	

MONDAY, SEPTEMBER 19, cont'd

INVITED LECTURE SESSION III		
<i>Discussion Leader: Bodo Richter, Evonik</i>		
10:30 AM	Rufina Alamo (Florida State University) <i>Peculiar Crystallization of Sustainable Polyethylene-Like Materials</i>	8
11:10 AM	Christian Paulik (University of Linz) <i>Sustainability in Mechanical Recycling of Polymers</i>	9
12:00 PM	LUNCH	

INVITED LECTURE SESSION IV		
<i>Discussion Leader: Errun Ding, LyondellBasell</i>		
1:15 PM	Scott McIndoe (University of Victoria) <i>Mass Spectrometric Analysis of MAO Chemistry</i>	10
1:55 PM	Ken Kearns (Dow) <i>Measurements of Flow-Enhanced Nucleation After Processing of Polyethylenes Using Fast-Scanning Calorimetry Techniques</i>	11
2:35 PM	Christophe Boisson (CNRS) <i>Design of Olefin Block Copolymers from Coordinative Chain Transfer (Co)polymerization of Ethylene and Butadiene</i>	12
3:15 PM	BREAK	

INVITED LECTURE SESSION V		
<i>Discussion Leader: Dan Tempel, Boulder Scientific</i>		
3:45 PM	Susannah Scott (University of California, Santa Barbara) <i>Valorization of Polyolefins via Catalytic Upcycling, from Monomers to Higher Value Molecules</i>	13
4:25 PM	Jay Reimers (ExxonMobil) <i>Scale-Up Fundamentals for Evaluating New Reactor Designs</i>	14
5:05 PM	Phil Fontaine (Dow) <i>Advanced Molecular Polyolefin Catalysis: Enabling Growth and Sustainability</i>	15
5:50 PM	RECEPTION AND POSTER SESSION	

TUESDAY, SEPTEMBER 20

7:00 AM	<i>CONTINENTAL BREAKFAST</i>	
INVITED LECTURE SESSION VI <i>Discussion Leader: Larry Sita, University of Maryland</i>		
8:00 AM	Gail Blakley (Grace) <i>Moving Towards More Sustainable Supported Single Site Catalysts</i>	16
8:40 AM	Kalman Migler (NIST) <i>Cascading Crystallization in Mixed Polyolefins: Implications for Mechanical Recycling</i>	17
9:20 AM	Alberto Ortin (Polymer Char) <i>Enhanced Control of Polyolefin Production through Optimized Separation Techniques</i>	18
10:00 AM	<i>BREAK</i>	
INVITED LECTURE SESSION VII <i>Discussion Leader: João B. P. Soares, University of Alberta</i>		
10:30 AM	Damien Guironnet (University of Illinois, Urbana-Champaign) <i>Design-to-Synthesis in Polyolefin Chemistry</i>	19
11:10 AM	Marcia Pires (Nova Chemicals) <i>Polyethylene Structure-Property Relationships to Design Sustainable Packaging</i>	20
12:00 PM	<i>LUNCH</i>	
INVITED LECTURE SESSION VIII <i>Discussion Leader: Mary Garner, Dow</i>		
1:15 PM	Alceo Macchioni (University of Perugia) <i>Structure-Activity Relationships in Olefin Polymerization Catalysts</i>	21
1:55 PM	Alejandro Müller (University of the Basque Country, Spain) <i>Surface Nucleation of Polyethylene Droplets in Polypropylene Matrices</i>	22
2:35 PM	Julia Pribyl (US Naval Academy) <i>Creating Degradable Polyolefins from New Dioxepenes</i>	23
3:15 PM	<i>BREAK</i>	

TUESDAY, SEPTEMBER 20, CONT'D

INVITED LECTURE SESSION IX		
<i>Discussion Leader: Jeremy Praetorius, CPChem</i>		
3:45 PM	Aaron Sadow (Iowa State University) <i>Upcycling Polyolefins via Selective Catalytic Conversions</i>	24
4:25 PM	Maria Soliman (SABIC) <i>Circularity of Plastics and Material/Application Development: Examples for Packaging Solutions and Pressure Pipes</i>	25
5:05 PM	Michelle Sing (Braskem) <i>3D Printing Engineering Polyolefins for Functional Applications</i>	26
5:50 PM	BANQUET	

WEDNESDAY, SEPTEMBER 21

7:00 AM	CONTINENTAL BREAKFAST	
INVITED LECTURE SESSION X		
<i>Discussion Leader: Rick Register, Princeton University</i>		
8:00 AM	Roland Schmidt (Arlanxeo) <i>Polyolefin Nitrile Rubber - The Challenges of a High-Performance Polar Rubber Product</i>	27
8:40 AM	Finizia Auriemma (University of Naples Federico II) <i>Olefin-based Statistical Multi-block Copolymers: From Molecular Design to Advanced Properties</i>	28
9:20 AM	Leon Govaert (Eindhoven University of Technology) <i>Molecular Weight Dependence of Crack Growth in Polyethylenes: "Slip Slidin' Away"</i>	29
10:00 AM	BREAK	
INVITED LECTURE SESSION XI		
<i>Discussion Leader: Ken Wagener, University of Florida</i>		
10:20 AM	Theo Tervoort (ETH) <i>"Tying the Knot": Ultra-fast Entangling Across Ultra-high Molecular Weight Polyethylene (UHMWPE) Interfaces</i>	30
11:00 AM	Hadi Mohammadi (Braskem) <i>New Ethylene-based Terpolymer with Improved Elastomeric Performance</i>	31
11:40 AM	Clark Landis (University of Wisconsin) <i>Mechanistic Aspects of Catalytic Alkene Polymerization</i>	32
12:20 AM	João B. P. Soares, Ken Wagener, Rick Register, and Jerzy Klosin <i>Closing Remarks</i>	