

## SUNDAY, SEPTEMBER 29

## Technical Program

---

2:00 PM REGISTRATION BOOTH OPENS

---

### KEYNOTE ADDRESS SESSION

DISCUSSION LEADERS: RICK REGISTER, JOÃO SOARES, KIM RAGAERT, KEN WAGENER & JERZY KLOSIN

---

3:00 PM OPENING REMARKS – JERZY KLOSIN

---

**Geoff Coates (Cornell University)**

3:10 PM 1. *McGrath Lecture: Improving the Sustainability of Polyolefins*

---

**LaShanda Korley (University of Delaware)**

4:10 PM 2. *Polyolefin Catalytic Recycling through a Macromolecular Lens*

---

**Ron Larson (University of Michigan)**

4:50 PM 3. *Polyethylene Branching, Rheology, Processing, and Crystallization: Understanding the Connections*

---

**Dave Parrillo (Dow)**

5:30 PM 4. *Advancing the Polyolefin Industry Through Innovation*

---

6:30 PM WELCOME AND POSTER SESSION

---

## MONDAY, SEPTEMBER 30

---

7:00 AM CONTINENTAL BREAKFAST

---

INVITED LECTURE SESSION II – DISCUSSION LEADER: KIM RAGAERT, MAASTRICHT UNIVERSITY

---

8:00 AM 5. **Frank Leibfarth (University North Carolina, Chapel Hill)**  
*C–H Functionalization of Polyolefins as a Route to Access Advanced Materials*

---

8:40 AM 6. **Sharon Elyashiv-Barad (FDA)**  
*U.S. FDA Regulation of Polyolefin Food Contact Materials*

---

9:20 AM 7. **Dongmei Cui (Changchun Institute of Applied Chemistry)**  
*Synthesis of New Polymer Materials from Commonly used Monomers*

---

10:00 AM BREAK

---

INVITED LECTURE SESSION III – DISCUSSION LEADER: JERZY KLOSIN, DOW

---

10:30 AM 8. **Sarah Mattler (ExxonMobil)**  
*NMR Characterization of Polyolefins: Expanding Understanding of Materials*

---

11:10 AM 9. **Kotohiro Nomura (Tokyo Metropolitan University)**  
*Synthesis of New Polyolefins by Olefin Insertion/Metathesis Polymerizations Using Designed Molecular Catalysts*

---

12:00 PM LUNCH

---

## MONDAY, SEPTEMBER 30 CON'T

---

### INVITED LECTURE SESSION IV - DISCUSSION LEADER: JULIE BOYER, GRACE

---

- 1:15 PM 10. **Sanjay Rastogi (KAUST)**  
*Single Crystals formation during Polymerization and its Implications on Physical and Mechanical Properties*
- 1:55 PM 11. **Zhibin Zhang (LyondellBasell)**  
*Application of Chromatographic Techniques in the Analysis of PCR Plastics*
- 2:35 PM 12. **Amanda Lemette T. Brandão (PUC)**  
*Advancing Polyolefin Identification: Automating Infrared Spectra Interpretation for Microplastic Analysis*
- 3:15 PM BREAK
- 

### INVITED LECTURE SESSION V – DISCUSSION LEADER: ROB DUCHATEAU, SABIC

---

- 3:45 PM 13. **Sean Ewart (Dow)**  
*Process Chemistry in an Industrial Polyolefin Company*
- 4:25 PM 14. **Olivier Lhost (TotalEnergies)**  
*Structure-Properties Relationships: The Privileged Way to Speed Up Polyolefin Developments*
- 5:05 PM 15. **Kimberly McLoughlin (Braskem)**  
*Dynamic Crosslinking to Enable EVA Recycling*
- 5:50 PM RECEPTION AND POSTER SESSION
- 

## TUESDAY, OCTOBER 1

---

7:00 AM CONTINENTAL BREAKFAST

---

### INVITED LECTURE SESSION VI – DISCUSSION LEADER: XIUHUA CUI, TOTALENERGIES

---

- 8:00 AM 16. **Adam Veige (University of Florida)**  
*Cyclic Polyolefins: Properties, Applications, and Ring-Expanding Catalysts*
- 8:40 AM 17. **Kenji Michiue (Mitsui Chemicals)**  
*Recent Research Developments in Single-Site Olefin Polymerization Catalysts at Mitsui Chemicals, Inc.*
- 9:20 AM 18. **Margaret Sobkowicz (University of Massachusetts at Lowell)**  
*Reactive and Field-Assisted Extrusion to Enable Circular Polyolefins*
- 10:00 AM BREAK
- 

### INVITED LECTURE SESSION VII – JOÃO B. P. SOARES, UNIVERSITY OF ALBERTA

---

- 10:30 AM 19.  
A **POSTER 1 - TBD**
- 10:50 AM 19.  
B **POSTER 2 - TBD**
- 11:10 AM 20. **Jen Hanna (Quantum)**  
*High Modulus Polypropylene with a Unique Fiber Structure*
- 12:00 PM LUNCH
-

## TUESDAY, OCTOBER 1 CON'T

---

### INVITED LECTURE SESSION VIII - DISCUSSION LEADER: RYAN RONDO, BOULDER SCIENTIFIC

---

- 1:15 PM 21. **Bernhard von Vacano (BASF)**  
*Mechanistic Insights for Polyolefin Recycling in Stabilization Against Chain Scission and Compatibilization*
- 1:55 PM 22. **Francisco Perez Valencia (SABIC)**  
*Online Prediction of High-Value Quality Control Properties in Multimodal HDPE Plants*
- 2:35 PM 23. **Simone Weber (Evonik)**  
*Ziegler-Natta Catalysts with Well-Defined Pore Structure and Superior ICP Capability Based on Evonik's Spherical Magnesiumalkoxides and Aliphatic Internal Donor*
- 3:15 PM BREAK
- 

### INVITED LECTURE SESSION IX – DISCUSSION LEADER: RUJA SHRESTHA, UNCHAINED LABS

---

- 3:45 PM 24. **Vasileios Touloupidis (Borealis)**  
*What Can Industrial Catalytic Olefin Polymerization Plants Tell Us About Reaction Kinetics?*
- 4:25 PM 25. **Umang Agarwal (Shell)**  
*Structure-Property Relationships of High-Density Polyethylene Resins for Municipal Applications*
- 5:05 PM 26. **Lina Prada (SABIC)**  
*Polyolefin Applications and Materials to Enable Energy Transition: Driving Innovation and Collaboration*
- 5:50 PM BANQUET
- 

## WEDNESDAY, OCTOBER 2

---

7:00 AM CONTINENTAL BREAKFAST

---

### INVITED LECTURE SESSION X – DISCUSSION LEADER: RICK REGISTER, PRINCETON UNIVERSITY

---

- 8:00 AM 27. **Sara Orski (NIST)**  
*Polyolefin Structure-Property Relationships to Enable Measurement Accuracy for Circular Materials*
- 8:40 AM 28. **Markus Gahleitner (Borealis)**  
*Multiple Approaches to Enhancing Polyolefin Circularity - Combining Chemistry, Physics, and Engineering*
- 9:20 AM 29. **Graham Lief (CPChem)**  
*Probing Active Olefin Polymerization Sites on Solid Supports*
- 10:00 AM BREAK
- 

### INVITED LECTURE SESSION X – DISCUSSION LEADER: KEN WAGENER, UNIVERSITY OF FLORIDA

---

- 10:20 AM 30. **Michael Shaver (University of Manchester)**  
*One Bin To Rule Them All: Quantity and Quality in Polyolefin Recycling*
- 11:00 AM 31. **Timothy McKenna (CNRS Lyon)**  
*Sorption of Vapor Phase Components: Impact on Properties of PE Made in the Gas Phase*
- 11:40 AM CLOSING REMARKS - Rick Register, Ken Wagener, João Soares, Kim Ragaert, & Jerzy Klosin
-

MONDAY, SEPTEMBER 30, 2024

POSTER PROGRAM

1. **Fahad AlSalem**, Ameer Louhichi, and Sanjay Rastogi  
King Abdullah University of Science and Technology  
*Melt Blending of HDPE and Low-Entangled UHMWPE via Melt Extrusion: Dispersion Compatibility, Viscoelastic Scaling Laws, and Extensional Viscoelastic Flow*

POSTER CANCELLATION

2. **Rhett Baillie**  
Dow Chemical Company

3. **Bernadine Daichendt** and Dr. Igor Luzinov  
Clemson University  
*Blending of Polyethylene with Polypropylene for use in Bulk Recycling*

POSTER CANCELLATION

4. **Hien Do**  
Dow Chemical Company

5. Jakub Kruszynski, Weronika Nowicka, Lidia Jasinska-Walc, and **Rob Duchateau**  
SABIC Technology & Innovation  
*iPP/HDPE blends compatibilized by a polyester: An unconventional concept to valuable products*

POSTER CANCELLATION

6. **Austin Evans**  
University of Florida

7. **Eli Fastow**, Anne Radzanowski, E. Bryan Coughlin, and Karen I. Winey  
University of Pennsylvania  
*Crystallization Behavior of Linear EVOH Analogs from Hydroxylation of Polycyclooctene*

8. **You Jin Jeon**, Dong Wook Jung, and Sung Chul Hong  
Sejong University  
*Post-Polymerization Modification of Polyolefin Utilizing C–H Insertion Capability of Sulfonyl Azide: Employing Sulfonyl Azide End-Functionalized Polystyrene to Modify High-Density Polyethylene*

POSTER CANCELLATION

9. **Zhongbao Jian**  
Changchun Institute of Applied Chemistry

10. **Kseniia Karnaukh**, Haley Beech, Jerrick Edmund, Craig Hawker, Rachel Segalman, and Javier Read de Alainz  
University of California Santa Barbara  
*Compatibilization of Immiscible Polymer Blends through Pendant Ionic Interactions*

POSTER CANCELLATION

11. **Abebu Kassie**  
Dow Chemical Company

12. **Rhett Kempe**  
Bayreuth University  
*Synthesis of Branched Olefins from Ethylene*

13. **Rhett Kempe**  
Bayreuth University  
*CCTP to AI with Very High Activity and Catalyst Economy*

14. Eduard Edel and **Markus Klapper**  
Max-Planck-Institute for Polymer Research  
*General Pathways to Biodegradable Polyolefins*

15. Tianhao Nan, **Bo Liu**, Dongmei Cui  
Changchun Institute of Applied Chemistry  
*Recycling of Polyethylene into A,W-Telechelic Polymer in an Economic Approach*

- 
16. **Cherish Nie**, Shawn M. Maguire, Chloe Park, Junho Kim, Richard A. Register, Rodney D. Priestley, Emily C. Davidson, and Paul J. Chirik  
Princeton University  
*The Development and Chemical Recycling of Poly(oligocyclobutane) Polymers*
- 
17. **Sevin Oh**, Su Yeon Kim, and Sung Chul Hong  
Sejong University  
*Utilizing the C-H Insertion Capability of Azidoformate for the Preparation of Polypropylene with Long-Chain Branches*
- 
18. **Mrudul Thaliyil Puthiyaveetil**, Sumesh K Raman, Jiayi Zhao, and Sanjay Rastogi  
King Abdullah University of Science and Technology  
*Making Single Crystals of Ultrahigh Molecular Weight Poly(ethylene-alt-CO)s for Solvent Free Processing*
- 
19. **Larry F. Rhodes**  
Promerus  
*Norbornene Polymers for Electronics and Beyond*
- 
20. **Nasser Sharahili**, Jiayi Zhao, Dario Romano, and Sanjay Rastogi  
King Abdullah University of Science and Technology  
*Synthesis, Characterization, and Solid-State Processing of Ultra High Molecular Weight Polybutadiene Trans-1,4 and the Implication on the Resultant Polymer Mechanical Properties*
- 
21. **Nakyung Son**, Ju Yeon Ko, Rama Moorthy Appa, Sevin Oh, and Sung Chul Hong  
Sejong University  
*Post-Polymerization Modification of Polypropylene via Non-Catalytic C-H Insertion of Sulfonyl Azide Compounds with Different Functional Groups*
- 
22. **Wojciech Szot**, Debashis Chakraborty, Miloud Bouyahyi, Lidia Jasinska-Walc, and Rob Duchateau  
SABIC  
*Bridging the Gap: Translating Lab-Scale Synthesis to Commercial Production of Functionalized Polyolefins*
- 
23. **Andrii Tiara**, Bernadine Daichendt, and Igor Luzinov  
Clemson University  
*Chemically Recyclable Polyolefins with Covalent Adaptable Networks*
- 
24. Alberto Ortín, Tonica González, **Raquel Úbeda**, and Benjamín Monrabal  
Polymer Char  
*Chemical Composition Distribution in Polyolefins, a Key Microstructural Property*
- 
25. Alberto Ortín, Esther López, **Raquel Úbeda**, and Benjamín Monrabal  
Polymer Char  
*Supporting the Sustainability of Polyolefins: Developing Analytical Methods for Recycled Materials*
- 
26. **Fuhai Zhou**, Jiayi Zhao, and Sanjay Rastogi  
King Abdullah University of Science and Technology  
*The Non-Crystalline Region and its Influence on Crystal Plasticity in Semi-Crystalline Synthetic Polymers*
-