



Advances in Polyolefins 2015

September 21-24, 2015

Hilton - Sonoma Valley, CA

PROGRAM

MONDAY, SEPTEMBER 21

2:00 PM *REGISTRATION BEGINS*

KEY NOTE ADDRESS SESSION I

Introduction: Pal Arjunan, Ken Wagener, Geoff Coates, & Jerzy Klosin

3:00 PM **Pal Arjunan**

Welcome Address: General Overview of APO 2015

3:15 PM **Richard Schrock, Massachusetts Institute of Technology**

Stereospecific ROMP of Cyclic Olefins with Mo and W Initiators

1

4:00 PM **Bob Maughon, The Dow Chemical Company**

Sustainability and Plastics: Innovation at Dow Performance Plastics
Drives Sustainable Solutions

2

4:30 PM **Srivatsan Iyer, Braskem Europe**

Energy Market Dynamics – What Happened and What Can We Expect

3

5:00 PM **Hamid Almegren, King Abdulaziz City for Science and Technology,
SAUDI ARABIA**

Polymers Industry in GCC Countries

4

5:30 PM *END DAILY SESSION*

6:00 PM *WELCOME RECEPTION*

TUESDAY, SEPTEMBER 22

7:00 AM *CONTINENTAL BREAKFAST*

INVITED LECTURE SESSION II

Discussion Leader – Geoff Coates, Cornell University

8:00 AM **Ken Wagener, University of Florida and Don Baird, Virginia Tech**

Tribute to Prof. Jim McGrath

5

8:30 AM **Raj Krishnaswamy, Braskem Americas**

Innovation Strategy for the Polymers Industry

6

9:00 AM **John Bercaw, California Institute of Technology**

Alpha-Olefin Trimerization and Copolymerization of Trimers with Ethylene

7

9:30 AM **T.C. (Mike) Chung, The Pennsylvania State University**

Functionalization of Polyolefin for Green Energy Applications

8

10:00 AM *BREAK*

TUESDAY, SEPTEMBER 22, CONT'D

| INVITED LECTURE SESSION III | | |
|--|--|-----------|
| Discussion Leader – Ken Wagener, University of Florida | | |
| 10:30 AM | Raphael Crawford, Albemarle Corporation Global Polyolefin Catalysts Markets – an Overview | 9 |
| 11:00 AM | Clark Landis, University of Wisconsin - Madison Practical Approaches to Active Site Counting and Catalytic Polymerization Kinetics | 10 |
| 11:30 AM | Jerzy Klosin, The Dow Chemical Company Tuning Ethylene/ α -Olefin Selectivity during Olefin Polymerization Reactions with Molecular Catalysts | 11 |
| 12:00 PM | <i>GENERAL DISCUSSION ON MORNING TOPICS</i> | |
| 12:30 PM | <i>LUNCH</i> | |
| INVITED LECTURE SESSION IV | | |
| Discussion Leader – Eric Baer, Case Western Reserve Univ. | | |
| 1:30 PM | Don Baird, Virginia Tech Rheology and Processing of Polypropylene Long Fiber Composites for Automotive Applications | 12 |
| 2:00 PM | Paul DesLauriers and Mark Lamborn, Chevron Phillips Chemical Company Predicting Polyolefin Resin Tensile Properties using Microstructure Distributions | 13 |
| 2:30 PM | Robert Brüll, Fraunhofer-Institute, GERMANY Multidimensional liquid Chromatography of Polyolefins – Unravelling the Potential of Graphite | 14 |
| 3:00 PM | <i>BREAK</i> | |
| INVITED LECTURE SESSION V | | |
| Discussion Leader – Steve Diefenbach, Albemarle Corporation | | |
| 3:30 PM | Gregory G. Arzoumanidis, Oakwood Consulting, Inc. Novel Single-Site Ziegler-Natta Catalyst Development | 15 |
| 4:00 PM | Kotohiro Nomura, Tokyo Metropolitan University, JAPAN Synthesis of Cyclic Olefin (Co)Polymers by Olefin Insertion/Metathesis Polymerization | 16 |
| 4:30 PM | David Bergbrieter, Texas A&M University Polyolefin Oligomers as Solubility Promoters for Catalysis, Synthesis and Polymer Modification | 17 |
| 5:00 PM | <i>GENERAL DISCUSSION ON AFTERNOON TOPICS</i> | |
| 5:30 PM | <i>SESSION ENDS</i> | |
| 6:00 PM | <i>RECEPTION AND POSTER SESSION</i> | |

WEDNESDAY, SEPTEMBER 23

7:00 AM CONTINENTAL BREAKFAST

INVITED LECTURE SESSION VI

Discussion Leader: Jerzy Klosin, Dow Chemical Company

- | | | |
|----------|--|-----------|
| 8:00 AM | Pat Brant, ExxonMobil Chemical Company Synthesis of Polyolefin Vinyl Terminated Macromonomers, Their Properties, and Utility | 18 |
| 8:30 AM | Matt Thorn, Albemarle Corporation Understanding and Improving Activation Efficiency of Metallocene Catalysts for Olefin Polymerization | 19 |
| 9:00 AM | Rufina Alamo, Florida State University Melt Memory of Crystallization and Melt Structure of LLDPEs | 20 |
| 9:30 AM | Eric Baer, Case Western Reserve University Tribute to Jim McGrath New Layered and Fibrillar Polyolefin Systems | 21 |
| 10:15 AM | BREAK | |

INVITED LECTURE SESSION VII

Discussion Leader – Raj Krisnsamy, Braskem Americas

- | | | |
|----------|--|-----------|
| 10:45 AM | Ken Wagener, University of Florida Sulfur? - An Enemy for Metathesis Made Polyolefins? | 22 |
| 11:15 AM | Christopher Kay, University of Warwick, Coventry, UK Novel Functionalized Polyolefins | 23 |
| 11:45 AM | Rick King, BASF Corporation Polyolefin Stabilization: Overview of Chemistry & Effects | 24 |
| 12:15 PM | GENERAL DISCUSSION ON AFTERNOON TOPICS | |
| 12:30 PM | LUNCH | |

INVITED LECTURE SESSION VIII

Discussion Leader: João B. P. Soares, University of Edmonton, CANADA

- | | | |
|---------|---|-----------|
| 1:30 PM | João B. P. Soares, University of Alberta, Canada, and Paul DesLauriers, Chevron Phillips Chemical Company Mapping the Structure-Property Space of Bimodal Polyethylenes: A Combined Polymerization Kinetics and Chemometrics Approach | 25 |
| 2:00 PM | Tim F.L. McKenna, C2P2-Equipe LCPP, ESCPE-Lyon, FRANCE Impact of Condensable Compounds on the Gas Phase Polymerisation of Ethylene | 26 |

WEDNESDAY, SEPTEMBER 23, CONT'D

| | | |
|--|---|-----------|
| 2:30 PM | Jeffery L. Brinen, ExxonMobil Chemical Company, Saeid Mehdiabadi, João BP Soares, and Jay L Reimers, University of Alberta, CANADA Metallocene-Ethylene/1-hexene Copolymers: Polymerization Kinetics and Characterization | 27 |
| <hr/> | | |
| 3:00 PM | <i>BREAK</i> | |
| <hr/> | | |
| INVITED LECTURE SESSION IX | | |
| Discussion Leader: Pat Brant, ExxonMobil Chemical Company | | |
| 3:30 PM | Jan Kalfus, ExxonMobil Chemical Company Harnessing Metallocene Catalysis with Polymer Physics to Design PP/EPR Blends with Step-Out Performance | 28 |
| 4:00 PM | Sebastian Babik, Evonik Resource Efficiency GmbH, and Robert Brüll, Fraunhofer Institute, Darmstadt, GERMANY Novel Amorphous Poly Alpha Olefins (APAOs) Product Development | 29 |
| 4:30 PM | Joel Carr, Braskem Americas The Role of PP Impact Copolymer Melt Rheology on Improved Tiger-Marking Resistance in Injection Molding Parts with Long Flow Lengths | 30 |
| 5:00 PM | <i>GENERAL DISCUSSION ON TOPICS</i> | |
| 5:30 PM | <i>DINNER ON YOUR OWN</i> | |

THURSDAY, SEPTEMBER 24

| | | |
|--|--|-----------|
| 7:00 AM | CONTINENTAL BREAKFAST | |
| INVITED LECTURE SESSION X | | |
| Discussion Leader: Rick King, BASF | | |
| 8:00 AM | Geoff Coates, Cornell University New Routes to Controlled Polymer Architectures | 31 |
| 8:30 AM | Christophe Boisson, Lab Chimie Catalyse Polymères et, FRANCE Deciphering the Mechanism of Coordinative Chain Transfer Polymerization for Neodymium Metallocene/MgR ₂ Catalyst Systems and Applications | 32 |
| 9:00 AM | Gurmeet Singh and Sukhdeep Kaur Indian Oil Corporation, India High Performance Ziegler-Natta Catalyst for Propylene Polymerization | 33 |
| | Kazuo Takaoki, Sumitomo Chemical, JAPAN Creating New Value based on Polyolefin Technologies for a Better Tomorrow | 33 |
| 9:30 AM | Christophe Coperet, ETH Zürich, SWITZERLAND Cr(III) Silicates are Active in Ethylene Polymerization | 34 |
| <hr/> | | |
| 10:00 AM | BREAK | |
| INVITED LECTURE SESSION XI | | |
| Discussion Leader: Terry Krafft, Boulder-Scientific Company | | |
| 10:30 AM | J. Jancar and J. Zidek, CEIT, Brno University of Technology, CZECH REPUBLIC Effect of <i>in-situ</i> Core-shell Inclusions on the Mechanical Properties and Impact Fracture of Polypropylene | 35 |
| 11:00 AM | Vasileios Kanellopoulos, Borealis Polymers, FINLAND Application of Polymer Reaction Engineering Tools in Industrial Processes | 36 |
| 11:30 AM | Pal Arjunan, Ken Wagener, Geoff Coates, and Jerzy Klosin – Closing Remarks | 37 |
| 12:00 PM | | |
