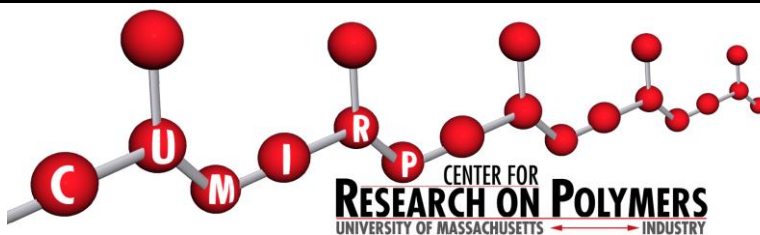




Spring 2019 Polymer Event University of Massachusetts Amherst



Tuesday, May 14, 2019

Center for UMass-Industry Research on Polymers Cluster Meetings

TIME:	SESSION:	LOCATION:
10:00 am - 12:00 pm	Cluster A Meeting – Polymers in Adhesion on Living Interfaces <i>(Members Only)</i>	Conte A110
12:00 pm – 1:00 pm	Lunch	Conte Atrium
1:00 pm – 3:00 pm	Cluster E Meeting – Polymers in Energy <i>(Members Only)</i>	Conte A624
1:00 pm – 3:00 pm	Cluster M Meeting – Mechanics of Polymers <i>(Members Only)</i>	Conte A111
1:00 pm – 3:00 pm	Cluster N Meeting – Nanostructured Materials <i>(Members Only)</i>	Conte A524
3:00 pm – 3:15 pm	Coffee Break	Conte Atrium
3:15 pm – 5:15 pm	Cluster F Meeting – Fire-Safe Polymers <i>(Members Only)</i>	Conte A110
5:15 pm – 8:00 pm	Informal Reception and Dinner	Conte Atrium



Spring 2019 Polymer Event

University of Massachusetts Amherst



POLYMER SCIENCE AND ENGINEERING
UNIVERSITY OF MASSACHUSETTS AMHERST

Wednesday, May 15, 2019
Polymer Science & Sustainability
Conte A110/111

TIME:	SESSION:	LOCATION:
9:00 am - 9:30 am	Continental Breakfast	Conte Atrium
9:30 am - 9:40am	Introductory Remarks Prof. Bryan Coughlin	
9:40am - 10:10 am	<i>Circular Economy at BASF</i> Mr. Mark Minnichelli, Director, Technical Development, BASF Performance Materials	
10:10 am - 10:40 am	<i>Functional Nanocellulose Thin Films and Nanocellulose Aerogels</i> Professor Ken Carter, UMass Amherst	
10:40 am - 11:10 am	<i>New Measurement Techniques for Sustainable Composites</i> Dr. Jeremiah Woodcock, Research Chemist, NIST	
11:10 am - 11:40 am	<i>The Role of Polymers in the Sustainability of the World's Most-used Building Material – Concrete</i> Dr. Elizabeth Burns, Senior Principal Scientist, GCP Applied Technologies	
11:40 am - 12:10 pm	<i>3D Silica and Silicone Structures - Molecular and Micronic</i> Professor Tom McCarthy, UMass Amherst	
12:10 pm - 1:30 pm	Lunch	
1:30 pm - 2:00 pm	<i>Teaching Old Molecules New Tricks: The Unique Chemistry of Vanillin Derived Titanium Catalysts</i> Professor Chris Durr, Amherst College	
2:00 pm - 2:30 pm	<i>Sustainable Flexible Packaging</i> Dr. Larry Effler, Research Scientist, The Dow Company	
2:30 pm - 3:00 pm	<i>Sustainable Polymers at DuPont</i> Dr. Katrina Kratz, Senior Research Investigator, DuPont Performance Polymers	
3:00 pm - 3:30 pm	<i>Helical Cooperativity and Helical Chain Growth Mechanism in Polypeptide containing Macromolecules</i> Professor Yao Lin, University of Connecticut	
3:30 pm - 4:00 pm	<i>Polymer Membranes: Designing Next Generation Separators and Transport Mediators for Energy Generating Devices</i> Professor Bryan Coughlin, UMass Amherst	
5:00 pm	Reception and Dinner at the Courtyard by Marriott, Hadley, MA	



Spring 2019 Polymer Event

University of Massachusetts Amherst



POLYMER SCIENCE AND ENGINEERING
UNIVERSITY OF MASSACHUSETTS AMHERST

Thursday, May 16, 2019

Workshop on Bacterial-Material Interactions and Communication Conte A110/111

TIME:	SESSION:	LOCATION:
8:00 am – 8:45 am	Continental Breakfast	Conte Atrium
8:45 am - 9:00 am	Opening Remarks	
9:00 am - 9:40 am	<i>The Electrophysiology of Bacteria</i> Joel Kralj, University of Colorado	
9:40 am - 10:00 am	5 Minute Slam Talks from UMass: Maria Santore, Polymer Science & Engineering Shuang Zhou, Physics Jessica Schiffman, Chemical Engineering Mark Tuominen, Physics	
10:00 am - 10:40 am	<i>Exchange Across the Abiotic-Biotic Interface: Applications in Health, Environment, Infrastructure and National Security</i> Amy Heintz, Battelle	
10:40 am - 11:00 am	Coffee Break	Conte Atrium
11:00 am - 11:20 am	<i>Synthetic Polymers that Mimic, Interact with, and Complement Biology</i> Todd Emrick, UMass Amherst Polymer Science & Engineering	
11:20 am - 11:40 am	<i>Engineering the Bacterial Cell Wall</i> Sloan Siegrist, UMass Amherst Microbiology	
11:40 am - 12:20 pm	<i>Neutron Scattering from Living Bacteria</i> John Katsaras, Oak Ridge National Lab	
12:20 pm - 1:10 pm	Lunch	Conte Atrium
1:10 pm - 1:50 pm	<i>Surface-Surfing with a Few Million Friends: How Identity Information Influences Bacterial Collective Motility</i> Karine Gibbs, Molecular and Cellular Biology, Harvard	
1:50 pm - 2:30 pm	<i>An Ingestible Bacteria-Electronic System to Monitor Gastrointestinal Health</i> Mark Mimee, Departments of Biological Engineering and Electrical Engineering, MIT	



Spring 2019 Polymer Event

University of Massachusetts Amherst

2:30 pm - 3:10 pm

Interactions Between Soft Matter Objects and Living Organisms
Denis David Bendejacq, Solvay

3:10 pm - 3:20 pm

Break

3:20 pm - 4:20 pm

Round Table Discussions:
Technological Need and Opportunities
Scientific Questions
Challenges and Needs for New Experimental Methods
Needs and Opportunities for Materials Design