



Fall 2016 Polymer Event

University of Massachusetts Amherst

Tuesday, October 18, 2016
Conte Polymer Research Center

TIME:	SESSION:	LOCATION:
12:00 pm – 1:00 pm	Lunch	Conte Atrium
1:00 pm – 3:00 pm	CUMIRP Cluster E Meeting – Polymers in Energy <i>(Members Only)</i>	Conte A624
1:00 pm – 3:00 pm	CUMIRP Cluster M Meeting – Mechanics of Polymers <i>(Members Only)</i>	Conte A110
1:00 pm – 3:00 pm	CUMIRP Cluster R Meeting – Roll-to-Roll Processing <i>(Members Only)</i>	Conte A111
3:00 pm – 3:15 pm	Coffee Break	Conte Atrium
3:15 pm – 5:15 pm	CUMIRP Cluster F Meeting – Fire-Safe Polymers <i>(Members Only)</i>	Conte A110
3:15 pm – 5:15 pm	CUMIRP Cluster N Meeting – Nanostructured Materials <i>(Members Only)</i>	Conte A624
3:15 pm – 5:15 pm	CUMIRP Cluster V – Evolutionary Materials <i>(Members Only)</i>	Conte A111
5:15 pm – 6:30 pm	Informal Dinner for faculty and invited guests	Conte Atrium
6:30 pm – 8:15 pm	Polymer Science & Engineering Poster Session I	Conte A110/111

Wednesday, October 19, 2016
Conte A110/111

TIME:	SESSION:
8:00 am – 8:30 am	Continental Breakfast (Conte Atrium)
8:30 am – 8:40 am	Welcome and NRT Overview Greg Tew and Ken Carter, Polymer Science & Engineering
8:40 am – 8:50 am	Welcoming Remarks Betsy Dumont, Senior Vice Provost for Academic Affairs & Director of the Interdisciplinary Graduate Programs in the Life Sciences
8:50 am – 9:00 am	Institute for Applied Life Sciences: Resources and Opportunities Peter Reinhart, Director of Institute for Applied Life Sciences
9:00 am – 9:20 am	Antibody-Conjugated Nanogels for Targeted Drug Delivery to T Lymphocytes Barbara Osborne, Veterinary & Animal Sciences
9:20 am – 9:40 am	Material Design for Controlled Bioadhesion: From Surface Features to Long Range Effects Maria Santore, Polymer Science & Engineering



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TIME:	SESSION:
9:40 am – 10:00 am	<i>Nanocellulose-Based Materials</i> Ken Carter, Polymer Science & Engineering
10:00 am – 10:20 am	<i>Designing New Protein Mimics Created New Tools for Immunology</i> Greg Tew, Polymer Science & Engineering
10:20 am – 10:40 am	<i>Effects of Ink Rheology on Roll-to-Roll Coating and Printing</i> Jonathan Rothstein, Mechanical & Industrial Engineering
10:40 am – 11:00 am	<i>Using Protein Transduction Domain Mimics to Deliver Functional Antibodies Against Intracellular Targets</i> Lisa Minter, Veterinary & Animal Sciences
11:00 am – 11:20 am	<i>Soft Slippery Surfaces Reduce Biological Fouling</i> Jessica Schiffman, Chemical Engineering
11:20 am – 11:40 am	<i>Microengineered Systems for Developmental Biology and Regenerative Medicine</i> Yubing Sun, Mechanical & Industrial Engineering
11:40 am – 12:00 pm	<i>Surface Enhanced Raman Spectroscopy: One Tool for All Food Contaminants</i> Lili He, Food Science
12:00 pm – 1:15 pm	Lunch (Conte Atrium)
1:15 pm – 3:15 pm	Graduate Student Presentations: <i>Minchao Zhang</i> (McCarthy/Crosby Research Groups) Polyimide thin film integrated with silica micro-patterns formed from evaporation induced self-assembly <i>Ben Cherniawski</i> (Briseno Research Group) All-Small-Molecule Intercalation - Complex Morphology and Electronic Properties in a Well Mixed System <i>Daniel Acevedo</i> (Hayward Research Group) Selective crystallization of conjugated polymers into nanowires from graphene coated surfaces <i>Michael Leaf</i> (Muthukumar Research Group) Electrostatic effects on structure and electronic conduction of PEDOT: PSS <i>Jared Harris</i> (Carter Research Group) Synthesis of Conjugated Polymeric Materials <i>Yue Gai</i> (Watkins Research Group) Influence of side chain length and volume fraction on the morphology of bottlebrush block copolymers <i>Hyeyoung Kim</i> (Russell Research Group) Morphologies of mikto-arm polymers



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TIME:**SESSION:**

Matt Skinner (Emrick Research Group)
Exploiting Nature's Functionality in Synthetic Polymers for Therapeutics

Haomiao Yuan (Coughlin Research Group)
Introducing Cobaltocenium to Alkaline Anion Exchange Membrane Fuel Cells

Jigneshkumar Patel (Hsu Research Group)
Assessment of polymer chain dynamics during crosslinking

3:15 pm – 3:30 pm Coffee Break (Conte Atrium)

3:30 pm – 5:15 pm Polymer Science & Engineering Poster Session II

5:30 pm – 6:30 pm PSE Mentoring and NRT Career Panel

6:30 pm Reception and Banquet Dinner (Mullins Center – Massachusetts Room)

Thursday, October 20, 2016
Conte A110/111

TIME:**SESSION:**

9:00 am – 9:30 am Continental Breakfast (Conte Atrium)

Session Chair: Daniel Acevedo

10:00 am – 10:35 am **Fundamental Science for Autonomous Materials: a new Center at UMass**
Jennifer Ross, Physics & Anthony Dinsmore, Physics

10:35 am – 11:10 am **Functional and Sticky Droplets from Zwitterions**
Todd Emrick, Polymer Science & Engineering

11:10 am – 11:45 am **Challenges for Cryo-Electron Microscopy in Materials Science**
Alexander Ribbe, Polymer Science & Engineering

11:45 am – 1:00 pm Lunch (Conte Atrium)

Session Chair: Marcus Cole

1:00 pm – 1:35 pm **Colloidal Inorganic Nanocrystals: Old Materials Get New Life**
Kevin Kittilstved, Chemistry

1:35 pm – 2:10 pm **Textile Electronics: Weaving New Device Frontiers**
Trisha Andrew, Chemistry

2:10 pm – 2:45 **Engineering of Electrode Interlayers for All-Solution Processable Electronics**
Volodymyr Duzhko, Polymer Science & Engineering