



FINAL PROGRAM

SPE Polymer Nanocomposites Monday Evening March 5, 2012



Monday, March 5 - Room 141 Rauch Business Center, Lehigh University	
Clinic on Processing Polymer Nanocomposites	
Moderator: Larry Ingram (Alcan)	
6:00 PM – 7:00 PM	<u>Networking Session</u>
7:00 PM – 8:30 PM	<u>Speakers:</u> Stu Kapp (Leistriz) and Tom Cunningham (Consultant)





FINAL PROGRAM
Technical Presentations
SPE Polymer Nanocomposites
Tuesday, March 6, 2012



Tuesday, March 6 - Perella Auditorium (Rauch, Lehigh University)	
Thermoplastic-Matrix Polymer Nanocomposites	
Moderator: Lloyd Robeson (Professor, Lehigh University)	
8:00 AM – 8:45 AM	<u>Continental Breakfast</u> (Rauch Business Center, Lehigh University) <i>On-Site Registration and Pick-Up Proceedings on CD</i>
8:45 AM – 9:00 AM	<u>Welcome and Introduction</u> (Organizers)
9:00 AM - 10:00 AM	<u>Keynote Speaker:</u> Don Paul (Professor, University of Texas-Austin) <i>Polyolefin-Based Nanocomposites</i>
10:00 AM - 10:30 AM	<u>Speaker:</u> Katsuyuki Wakabayashi (Professor, Bucknell University) <i>Solid-State Shear Pulverization for Polymer Nanocomposites: A Chilled Twin-Screw Extrusion Process</i>
10:30 AM	Coffee Break & Vendor Exhibit
11:00 AM – 11:30 AM	<u>Speaker:</u> David Bigio (Professor, University of Maryland) <i>Variable Strength Stress Bead Analysis in a Twin-Screw Extruder</i>
11:30 AM – 12:00 PM	<u>Speaker:</u> Joseph Golba (Lead Scientist, PolyOne) <i>Nanocomposites via In-Situ Polymerization...Is This the Way to Go?</i>
12:00 PM	Lunch & Vendor Exhibit
Interfacial Issues in Polymer Nanocomposites	
Moderator: Patrick Kelley (Waste Not Technologies, LLC)	
1:30 PM - 2:30 PM	<u>Keynote Speaker:</u> Rich Vaia (Technology Advisor, AFRL, USAF) <i>Focusing on the Interface: New Opportunities for Polymer Nanocomposites</i>
2:30 PM - 3:00 PM	<u>Speaker:</u> Gale Holmes (Senior Research Scientist, NIST) <i>Epoxy Clay Hybrid Nanocomposites: Dynamic Mechanical Properties and Thermodynamic Considerations</i>
3:00 PM	Coffee Break & Vendor Exhibit
3:30 PM - 4:00 PM	<u>Speaker:</u> Bob DeVries (PolyOne) <i>Compatibilization of Carbon Nanotubes with Thermoplastic Matrices</i>
4:00 PM - 4:30 PM	<u>Speaker:</u> Janis Matisons (Research Scientist, Gelest) <i>POSS Nanomaterials: Synthesis and Tailored Materials Properties</i>
4:30 PM - 7:00 PM	Reception, Graduate Student Poster Session & Vendor Exhibit





FINAL PROGRAM
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Wednesday, March 7, 2012



Wednesday, March 7 - Perella Auditorium (Rauch Business Center, Lehigh University)	
Polymer Nanocomposites With Natural Fibers	
Moderator: Sabrina Jedlicka (Professor, Lehigh University)	
8:00 AM – 8:45 AM	<u>Continental Breakfast</u> (Rauch Business Center, Lehigh University) <i>On-Site Single Day Registration and Pick-Up Proceedings on CD</i>
8:45 AM – 9:00 AM	<u>Welcome and Introduction</u> (Organizers)
9:00 AM – 10:00 AM	<u>Keynote Speaker: Robert Moon (USFS - Forest Products Lab)</u> <i>Cellulose Nanomaterials and Nanocomposites</i>
10:00 AM - 10:30 AM	<u>Speaker: Douglas Gardner (Professor, University of Maine)</u> <i>Cellulose Nanocomposites: Is the Technology Ready for Prime Time?</i>
10:30 AM	Coffee Break & Vendor Exhibit
11:00 AM – 11:30 AM	<u>Speaker: Richard Wool (Professor, University of Delaware)</u> <i>Twinkling Fractal Nanoscale Applications to Biobased Materials</i>
11:30 AM – 12:00 PM	<u>Speaker: Joshua Orlicki (Senior Scientist, ARL)</u> <i>Nano-materials for the U.S. Army - Materials and Potential Applications for the Future Soldier</i>
12:00 PM - 1:30 PM	Lunch & Vendor Exhibit
Opportunities in Pharmaceuticals	
Moderator: Ray Pearson (Professor, Lehigh University)	
1:00 PM - 2:00 PM	<u>Keynote Speaker: Kathryn Uhrich, Rutgers University)</u> <i>Nanoscale Assemblies in Drug Delivery</i>
2:00 PM - 2:30 PM	<u>Speaker: Dan Roxbury (Graduate Student, Lehigh University)</u> <i>Sequence-Specific Interactions Between DNA and Single-Walled Carbon Nanotubes</i>
2:30 PM - 3:00 PM	<u>Speaker: Anthony McHugh (Professor, Lehigh University)</u> <i>Polymer-Based Drug Delivery: The Role of Structure in the Delivery Kinetics</i>
3:00 PM	Break
3:15 PM - 3:45 PM	<u>Speaker: Daniel Burnett (Surface Measurement Systems)</u> <i>Anisotropic Nature of Pharmaceutical Powders and its Effects on Processing and Formulation</i>
3:45 PM	Wrap-Up

