



ANTEC[®] ORLANDO

The Plastics Technology Conference

May 7-10, 2018 • Orange County Convention Center • Orlando, FL @



Tuesday Morning

8:00 am - 11:30 am

8:00 am - 8:30 am

8:30 am - 9:00 am

9:00 am - 9:30 am

9:30 am - 10:00 am

10:00 am - 10:30 am

10:30 am - 11:00 am

11:00 am - 11:30 am

8:00 am - 11:30 am

8:00 am - 9:00 am

9:00 am - 9:30 am

9:30 am - 10:00 am

T1-Additive Manufacturing: New Trade Space for Additive Manufacturing(Moderators: Jack Dispenza and Ray Pearson)-Room S320E

KEYNOTE: New Trade Space for Additive Manufacturing

Jack Dispenza

New Methods of Metal 3D Printing

Ben Arnold, Desktop Metal

Carbon: A Tool-Less Injection Molding Technology

David Moore

HP Multi Jet Fusion: A Color Capable Production Technology

David Woodlock, HP

Dimensional accuracy and design tips for composite parts made by the FDM process

Vittorio Jaker, Stratasys, Inc

Markforged: Metal AM in a Plastics World

Nick Sondej, HP

Panel Discussion: New Trade Space for Additive Manufacturing

T2-Bioplastics: Biodegradable Polymers and End of Life(Moderator: Stephan Laske)-Room S320A

KEYNOTE-Bringing Agriculturally Deprived Bioproducts to Market: Challenges and Opportunities

William Orts

Study of Biodegradable Polybutylene succinate/Poly(butylene adipate-co-terephthalate) Blends

Feng Wu, University of Guelph

Biodegradation of Biodegradable and Compostable Plastics under Industrial Compost, Marine, and Anaerobic Digestion

10:00 am - 10:30 am	Joseph Greene, Professor and Department Chair, California State University, Chico Tunable Degradation of Poly(butylene succinate) by Copolymerization and Catalysts Siwen Bi, Ph.D Student, UMass Lowell
10:30 am - 11:00 am	Mechanical Behavior and Anaerobic Biodegradation of a Poly(lactic acid) blend containing a Poly(lactic acid)-co-Poly(glycolic acid) Copolymer Christopher Lewis, Assistant Professor, Rochester Institute of Technology
11:00 am - 11:30 am	LOW TEMPERATURE SOLUTION DEPOLYMERIZATION OF PLA John Campanelli, Zeus Industrial Products
7:30 am - 11:30 am	T3-Composites: Processing and Properties(Moderators: Rich Caruso for Keynote and Enamul Haque)-Room S320C
7:30 am - 8:30 am	<i>KEYNOTE: Evolution of Thermoplastic Composites in Portable Electronics</i> Nicholas Abbatiello, Distinguished Engineer, Dell Dirk Bonefield, Head of Marketing and Sales, Bond Laminates Stefan Seidel, Head of Research & Development, Bond Laminates
8:30 am - 9:00 am	Acoustic and Flame Retardant Light Weight Reinforced Composite Ruomiao Wang, Hanwha Azdel
9:00 am - 9:30 am	INFLUENCE OF BONDING AGENTS ON FIBERMATRIX ADHESION AND COMPARISON OF VCF AND RCF FLEECE IN EPOXY MATRIX Jasmin Mankiewicz, Ph.D Student, University of Applied Sciences Niederrhein
9:30 am - 10:00 am	Experimental Study on Fiber Matrix Separation during Compression Molding of Fiber Reinforced Rib Structures Christoph Kuhn, Research Project Manager, Volkswagen AG
10:00 am - 10:30 am	Effects of Different Fillers on the Thermo-mechanical properties and Coefficient of Linear Thermal Expansion of Polypropylene Composites Mohamed Abdelwahab, University of Guelph
10:30 am - 11:00 am	INLINE UV LIGHT IRRADIATION OF CELLULOSE AND GLASS FIBERS IN PULTRUSION OF THERMOPLASTIC COMPOSITES Christian Kahl, University of Kassel
11:00 am - 11:30 am	PROPERTY CHARACTERIZATION OF INJECTION MOLDED HYBRID COMPOSITES Gangjian Guo, Bradley University
8:00 am - 11:30 am	T4-Engineering Properties and Structure: Polymer Physical Properties I(Moderators: Hoang Pham and Michail Dolgovskij)-Room S320B
8:00 am - 8:30 am	Quantitative Characterization and Modeling of Thin Film Conformability Haiying Zhang, Research Scientist, Fracture Mechanics & Materials Durability Laboratory
8:30 am - 9:00 am	Correlation of chain dynamics to mechanical properties of high performance crosslinked systems Shaw Hsu, Professor, University of Massachusetts
9:00 am - 9:30 am	Chasing the Bottom of the Energy Landscape: Vapor Deposited Amorphous Fluorocarbons Gregory McKenna, Professor, Texas Tech University
9:30 am - 10:00 am	Realizing Resource Saving Tire through Innovative Tough Polymer Composite

10:00 am - 10:30 am	Katsuhiko Tsunoda, Bridgestone Corporation Understanding the deformation behavior of nanocomposites with discrete carbon nanotubes
10:30 am - 11:00 am	Clive Bosnyak, Co-Founder and Chief Scientific Officer, Molecular Rebar Design LLC Quantitative Evaluation of Mar Visibility Resistance of Polymer Films
11:00 am - 11:30 am	Shuang Xiao, Ph.D Student, Texas A&M University Mechanical characterization of polycarbonate reinforce with woven glass fiber. OMAR SOLORZA-NICOLAS, INSTITUTO POLITECNICO NACIONAL/POLIMEROS Y COMPOSITOS S.A de C.V
8:00 am - 11:30 am	T5-Joining of Plastics and Composites(Moderator: Phil Bates)-Room S320H
8:00 am - 8:30 am	IMPROVEMENT ON FATIGUE PERFORMANCE OF METAL-COMPOSITE FRICTION SPOT JOINTS BASED ON THE WELD-BONDING CONCEPT Natalia Manente Andre, Helmholtz-Zentrum Geesthacht
8:30 am - 9:00 am	DIRECT-FRICTION RIVETING OF METAL-CFRP OVERLAP JOINTS Natascha Zocoller Borba, HZG
9:00 am - 9:30 am	ADHESIVE FREE BONDING OF PINE BY VIBRATIONAL WELDING Curtis Covelli, Iowa State University
9:30 am - 10:00 am	EXPERIMENTAL INVESTIGATION OF AMPLITUDE TRANSMISSION IN ULTRASONIC WELDING OF THERMOPLASTIC COMPOSITES Genevieve Palardy, Louisiana State University
10:00 am - 10:30 am	Time-dependent vibration welding behavior of foam injection molded parts in consideration of various fiber reinforcements and joint types Dario Heidrich, Chemnitz University of Technology
10:30 am - 11:00 am	Infrared welding of highly filled graphite composites Martin Facklam, Institute for Plastic Processing
11:00 am - 11:30 am	INFRARED WELDING OF CONTINUOUS GLASS FIBER-REINFORCED THERMOPLASTICS – APPROACHES TO USE THE FIBERS IN THE JOINT Marios Constantinou, Chemnitz University of Technology
8:00 am - 8:30 am	T6-Medical Plastics/Injection Molding Joint Session: Processing of Medical Plastics(Moderator: Maureen Reitman)-Room S320F
8:00 am - 11:30 am	<i>KEYNOTE:Innovations in Plastics Processing for Healthcare Applications</i> Manish Nandi, SABIC
8:30 am - 9:00 am	<i>KEYNOTE:New Developments and Trends in Medical Extrusion</i> Steve Maxson, Graham Engineering
9:00 am - 9:30 am	Laser-based Processing of Polymers for Medical Applications Roger Narayan, NC State University
9:30 am - 10:00 am	Micro Molding Drug Delivery Devices to Micron Tolerances Donna Bibber, Vice President, Isometric Micro Molding, Inc.
10:00 am - 11:30 am	<i>PANEL:Part Process Development and Validation for Multiple Machines</i> Matthew Therrien, RJG, Inc.

	Rod Brown Greg Lusardi Paul Robinson Brad Smith Ed Valley Scott Scully, Director, Corporate Molding/Tooling, Terumo Cardiovascular Group
8:00 am - 11:30 am	T7-Plastic Pipe and Fittings: Durability & Design in Plastic Pipe and Fittings(Moderator: Vivek Rohatgi)-Room S322
8:00 am - 8:30 am	EXAMINING DESIGN CHANGES POTENTIALLY INFLUENCING THE LIFETIME OF ELECTROFUSION SOCKET Jan Poduska, Institute of Physics of Materials, AS CR, Brno
8:30 am - 9:00 am	Application of J-integral methods to tough pipe materials Anja Gosch, Montanuniversitaet Leoben
9:00 am - 9:30 am	Fracture Mechanical Characterization of Non-Virgin Pipe Materials Andreas Frank, Program Manager, Polymer Competence Center Leoben GmbH
9:30 am - 10:00 am	DETERMINING CRITICAL STRESS FOR DUCTILE-BRITTLE TRANSITION OF POLYETHYLENE PIPE UNDER CREEP LOADING Ben Jar, University of Alberta
10:00 am - 10:30 am	COMPARISON OF REAL AND SIMULATED FAILURE TIMES BASED ON THE SLOW CRACK GROWTH BEHAVIOR OF ELECTROFUSION SOCKETS MADE OF POLYETHYLENE Isabelle Berger, Polymer Competence Center Leoben
10:30 am - 11:00 am	Proposed Allowable Scratch Depth for High-Density Polyethylene (HDPE) Pipes in Safety-Related Nuclear Applications Prabhat Krishnaswamy, Emc2
11:00 am - 11:30 am	<i>Best Paper Award Presentation</i> Don Duvall, Sr. Managing Consultant, ESI
8:00 am - 11:30 am	T8-Polymer Analysis: Thermal and Aging Analysis(Moderator: Ida Chen)-Room S320D
8:00 am - 8:30 am	<i>KEYNOTE:Effect of Water Vapor on Thermal and Mechanical Properties of an Amphiphilic Block Copolymer Membrane</i> Daniel Hallinan, Assistant Professor, Florida A & M University and Florida State University College of Engineering
8:30 am - 9:00 am	Thermal Investigation Between Pressure Conditioning and Thermal Annealing in Aging Studies of Glassy Thermosets Brendan Ondra, University of Massachusetts Amherst
9:00 am - 9:30 am	Observed Particle Migration During Processing of Polypropylene with Glass Beads Jose Luis Colon Quintana, UW-Madison
9:30 am - 10:00 am	ROLE OF FUNCTIONALIZATION OF NANOCCLAY PARTICLES ON DIFFUSION PROPERTIES OF COMMERCIAL GASOLINE THROUGH POLYMER MEMBRANES James Sloan, US Army Research Laboratory

10:00 am - 10:30 am	Analytical Characterization of Commercial Products: Cool Comfort Technologies for Bedding Products Praveenkumar Boopalachandran, Associate Research Scientist, Dow Chemical
10:30 am - 11:00 am	TGA-FTIR Unleashed At Last - Introducing a Fully-Integrated, Transfer Line-Free Coupling for Evolved Gas Analysis of Polymers Bob Fidler, Marketing and Sales, NETZSCH Instruments N.A. LLC
11:00 am - 11:30 am	Polyetheretherketone (PEEK) Exposure to ZnBr ₂ Completion Fluids at High Temperatures and Pressures: Identification and Quantification of Small Molecular Decomposition Products Joseph Baker, Texas A&M University
8:00 am - 11:30 am	T9-Polymer Modifiers and Additives(Moderator: Robert Sherman)-Room S320G
8:00 am - 8:30 am	<i>KEYNOTE: Stress-induced crystallization in Polypropylene</i> Pierre Donaldson, Manager, R&D, Flint Hills Resources
8:30 am - 9:00 am	Nucleation of Semi-crystalline Polymers with Minerals Saied Kochesfahani, IMERYS
9:00 am - 9:30 am	Use and Utility of Metal Soaps in Polyolefins Robert Sherman, Baerlocher
9:30 am - 10:00 am	PARTICLE ADDITIVES FOR SIMULTANEOUS ENHANCEMENT OF DEGRADATION AND TOUGHENING IN POLY(LACTIC ACID) FOR ADDITIVE MANUFACTURING Caroline Multari, Lehigh University
10:00 am - 10:30 am	A CHARACTERIZATION OF SOY ADDITIVES IN BIOBASED POLYETHYLENE FILMS Peter Perez, UMass Lowell
10:30 am - 11:00 am	Advanced Materials for Increasing Output and Reducing Energy Will Johnson, Ecopuro
11:00 am - 11:30 am	Smart light and energy management with acrylic glass! Péter Sebő, Head of Marketing and Market Development, Quarzwerke GmbH