



# ANTEC<sup>®</sup> ORLANDO

The Plastics Technology Conference

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



## Monday Afternoon

1:30 pm - 6:30 pm

1:30 pm - 2:00 pm

2:00 pm - 2:30 pm

2:30 pm - 3:00 pm

3:00 pm - 3:30 pm

3:30 pm - 4:00 pm

4:00 pm - 4:30 pm

4:30 pm - 5:00 pm

5:00 pm - 5:30 pm

5:30 pm - 6:00 pm

### **M10-Additive Manufacturing Materials(Moderators Ray Pearson and Jason Lyons)-Room S320E**

3D Printing Feedstock from Recycled Materials

Nicole Zander, Research Chemist, US Army Research Laboratory

ASSESSING THE PERFORMANCE OF CONTINUOUSLY REINFORCED ACRYLONITRILE BUTADIENE STYRENE WITH A THERMOTROPIC LIQUID CRYSTALLINE POLYMER IN FUSED FILAMENT FABRICATION

Mubashir Ansari, Virginia Tech

High Impact Strength Polycarbonate Filament for Additive Manufacturing  
Sarah Grieshaber, SABIC

Bonding Strength in Additively Manufactured Multi-Material Plastics Parts  
Jakob Onken, Institute of Plastics Processing at RWTH Aachen University

Crystallization Kinetics during Materials Extrusion based Additive Manufacturing of Polycaprolactone

Kalman Migler, NIST

Processing Considerations: Cellulose Nanocrystal Thermoplastic Urethane Filament Production

Jacob Fallon, Virginia Polytechnic Institute and State University

STRUCTURE AND PROPERTY RELATIONSHIPS OF ADDITIVELY MANUFACTURED POLYPHENYLENE SULFIDE WITH CARBON FIBER REINFORCEMENT

Peng Liu, Oak Ridge National Laboratory

Strength Analysis of Fused Filament Fabricated Continuous Carbon Fiber Composite Test Samples

Rogelio Herrera, University of Wisconsin - Madison

IMPROVING THE ELECTRICAL CONDUCTIVITY OF PC/ABS PRINTING FILAMENT FOR FUSED FILAMENT FABRICATION USING CARBON NANOSTRUCTURES

6:00 pm - 6:30 pm	Nicole Hoekstra, Western Washington University RHEOLOGICAL CHARACTERIZATION AND QUALITY ASSESSMENT OF COMMERCIAL ABS FILAMENTS FOR FUSED DEPOSITION MODELING
1:30 pm - 5:00 pm	Adam Miller, Shawnee State University <b>M11-Color and Appearance(Moderator: Michael Willis)-Room S320D</b>
1:30 pm - 2:00 pm	<i>KEYNOTE - Global Automotive Color Trend, Popularity and Who's Driving</i> George Ianuzzi, Senior Sales Manager, Sandream Impact LLC
2:00 pm - 2:30 pm	A review of titanium dioxide photo-activity in polypropylene Philipp Niedenzu, Chemours
2:30 pm - 3:00 pm	Understanding Warpage in Injection-Molded Thermoplastics; Causes and the Latest Pigmentary Solutions Breeze Briggs, Technical Specialist, Pigments., BASF Colors & Effect USA, LLC
3:00 pm - 3:30 pm	Extending the boundaries: Bismuth-based pigments for the plastics industry Cristina Zanzottera, Product Manager, DCC Maastricht BV
3:30 pm - 4:00 pm	Optimizing Color: A Pigment- and Surface-Chemistry Perspective Christopher Beier, Clariant Plastics and Coatings USA, Inc.
4:00 pm - 4:30 pm	VOC Reducing Additives for Masterbatches and Final Polymer Articles Rob Lorenzini, Technology Manger , Maroon Group
4:30 pm - 5:00 pm	Keynote: Color Theory and Test Methods. Betty Puckerin, Global Manager, Ampacet Corporation
1:30 pm - 6:00 pm	<b>M12-Engineering Properties and Structure: Innovations in Packaging and Plastics(Moderators: MaryAnn Jones and Joel Carr)-Room S320B</b>
1:30 pm - 2:00 pm	EFFECT OF RESIN SELECTION ON PORE FORMATION OF POLYETHYLENE FILMS Wenyi Huang, The Dow Chemical Company
2:00 pm - 2:30 pm	Active packaging film to extend shelf-life of fresh poultry Ankush Gokhale, Bemis Company
2:30 pm - 3:00 pm	Self-Sterilizing Packaging For Medical Devices Rishabh Jain, Bemis Company
3:00 pm - 3:30 pm	Impact of Plastics Packaging on Life Cycle Impacts in the U.S. and Canada Substitution Analysis Emily Tipaldo, Director of Packaging & Consumer Products, American Chemistry Council
3:30 pm - 4:00 pm	Clear Impact Co-polymers for Thermoforming Kevin Herrington, Braskem
4:00 pm - 4:30 pm	Modeling film behavior in pallet unitization applications Pavan Valavala, Dow Chemical Company
4:30 pm - 5:00 pm	REDUCED DENSITY POLYAMIDE 66 COMPOUNDS FOR EXTRUSION APPLICATIONS Ying Shi, A. Schulman Inc
5:00 pm - 5:30 pm	THE RELATIONSHIP BETWEEN STRUCTURE AND THERMAL AND MECHANICAL PROPERTIES OF THERMOPLASTIC POLYESTER MATERIALS

5:30 pm - 6:00 pm	Jeffrey Jansen, The Madison Group Effect of annealing on the viscoelastic behavior of poly(ether-ether-ketone)
1:30 pm - 4:30 pm	Zhiyuan Jiang, Texas A&M University <b>M13-Extrusion: Twin Screw II(Moderator: Michael Thompson)-Room S320F</b>
1:30 pm - 2:00 pm	3D Numerical Simulation of Multiphase Flow in Partially Filled Twin Screw Extruders Hossam Metwally, Principal Engineer , ANSYS Inc.
2:00 pm - 2:30 pm	Mechanical properties of ultra-high molecular weight polyethylene nascent fibers at different screw speeds Fangke Liu, Student, Beijing Institute of Technology
2:30 pm - 3:00 pm	Viscosity and Dispersion Enhancements in Polyethylene Terephthalate Compounding Prakash Hadimani, AGM, STEER
3:00 pm - 3:30 pm	Enhancing thermal conductivity of PVDF/graphene nanocomposites by water-assisted mixing extrusion Han-xiong Huang, South China University of Technology
3:30 pm - 4:00 pm	EFFECTS OF NOVEL EXTENSIONAL MIXING ELEMENTS ON FIBER LENGTH DISTRIBUTION IN COMPOSITE EXTRUSION Molin Guo, Case Western Reserve University
4:00 pm - 4:30 pm	TRANSITION METAL DICHALCOGENIDE THERMOPLASTIC COMPOSITES PREPARED USING LAB SCALE EXTRUSION Joshua Orlicki, Army Research Laboratory
1:30 pm - 6:00 pm	<b>M14-Injection Molding: Materials(Moderators: Pete Grelle and Gary Smith)-Room S320H</b>
1:30 pm - 2:00 pm	Microinjection Molding of Polypro/Graphite Composite Shengtai Zhou, University of Western Ontario
2:00 pm - 2:30 pm	Foaming Uniformity Control of High Weight Reduction Microcellular Injection Molded Thermoplastic Elastomer Using Gas Counter Pressure Chang Che-wei, Chung Yuan Christian University
2:30 pm - 3:00 pm	MECHANICAL AND RHEOLOGICAL CHARACTERISTICS OF PP/PET BLEND WITH MALEIC ANHYDRIDE AND JUTE FIBRE Abul Saifullah, Lecturer , Swinburne University Of Technology
3:00 pm - 3:30 pm	Mechanical properties of polyamide 6/zeolite composites davoud jahani, University of Bonab
3:30 pm - 4:00 pm	Effects of Processing Parameters on Fiber Length Distribution and Tensile Strength of Long Glass Fiber Reinforced Nylon66 Composites Molded Parts Hsin-Shu Peng, Feng Chia University
4:00 pm - 4:30 pm	Evaluating the Through-Plane Conductivity of Molded Parts via Magnetic Field in the Injection Molding Process Chiu Min-Chi, Chung Yuan Christian University
4:30 pm - 5:00 pm	IMPROVED PROCESSABILITY OF ULTRA-HIGH MOLECULAR WEIGHT POLYETHYLENE VIA SUPERCRITICAL NITROGEN AND CARBON DIOXIDE IN

5:00 pm - 5:30 pm	<p>INJECTION MOLDING Galip Yilmaz, Wisconsin Institute for Discovery at University of Wisconsin–Madison EFFECT OF STRESS RELAXATION ON SHRINKAGE AND WARPAGE OF INJECTION MOLDED PARTS</p>
5:30 pm - 6:00 pm	<p>Zhiliang Fan, Senior Principal Research Engineer, Moldflow R&amp;D Center, Autodesk Studying of Viscoelasticity on Warpage Validation Chao-Tsai Huang, Assistant Professor, Tamkang University</p>
1:30 pm - 5:00 pm	<p><b>M15-Marketing and Management-Room S322</b></p>
1:30 pm - 2:00 pm	<p>Corporate entrepreneurship: The challenges of creating a start up culture Bonnie Bachman, Professor and Faculty Fellow, Missouri University of Science and Technology</p>
2:00 pm - 2:30 pm	<p>Sustainability-Driven Innovation Bonnie Bachman, Professor and Faculty Fellow, Missouri University of Science and Technology</p>
2:30 pm - 3:00 pm	<p>Social Media Adoption for Industrial Marketing; What's Right for You Diane Wilson, Marketing Consultant, DWA</p>
3:00 pm - 3:30 pm	<p>Data Sciences and Domain Expertise Combine Forces in Transforming Strategic Industrial Marketing Bala Ambravan, Co-Founder, Gadfly Zone India Gunaranjan Pemmaraju, Co-Founder, Gadfly Zone India</p>
3:30 pm - 4:00 pm	<p>The Third Sustainability Survey of the Plastics industry Bonnie Bachman, Professor and Faculty Fellow, Missouri University of Science and Technology Shristy Bashyal Maggie Baumann, Founder, G.H.Associates Panel discussion- Innovation and Sustainability</p>
4:00 pm - 5:00 pm	<p><b>M16-New Technology Forum-4D Printing and Stimuli-responsive Materials(Moderators:Sydney Gladman and Stéphane Costeux)-Room S320G</b></p>
1:30 pm - 6:00 pm	<p>4D Printing Enabled by Active Polymers and Composites Jerry Qi, Professor and the Woodruff Faculty Fellow , Georgia Tech</p>
1:30 pm - 2:00 pm	<p>Pixelated Polymers: Directing the Self-Assembly of Liquid Crystalline Elastomers Timothy White, Technology Advisor, Air Force Research Laboratory</p>
2:00 pm - 2:30 pm	<p>4D printing of Liquid crystal elastomers Taylor Ware, Assistant Professor, University of Texas at Dallas</p>
2:30 pm - 3:00 pm	<p>Intelligent Polyolefin: Communication Through External Stimuli Marcia Pires, Polymer Science Researcher, Braskem</p>
3:00 pm - 3:30 pm	<p>Self-folding of Polymer Sheets Using Light Mike Dickey, Alumni Distinguished Professor, North Carolina State University</p>
3:30 pm - 4:00 pm	<p>Environmentally-triggered snap-through in soft structures</p>
4:00 pm - 4:30 pm	

4:30 pm - 5:00 pm	Jordan Raney, Assistant Professor, University of Pennsylvania Panel Discussion
5:00 pm - 5:30 pm	Micro and Nano-Scale Surface Information Programming on Transparent Multilayer Shape Memory Films Zhenpeng Li, Case Western Reserve University
5:30 pm - 6:00 pm	Architected Multiscale Polymeric Foams Md Faisal Ahmed, Florida State University
1:30 pm - 6:00 pm	<b>M17-Rotational Molding: New Materials for Rotational Molding(Moderator: Denis Rodrigue)-Room S320A</b>
1:30 pm - 2:00 pm	New solutions for Light Stability of PE in Rotomolding - ver. 2 - 9th Jan 2018 Enrico Costantini, Chief Technology Officer , SABO SpA
2:00 pm - 2:30 pm	Quality monitoring of rotational molded parts using a nondestructive technique Felipe Gomes, Ph.D Student, McMaster University
2:30 pm - 3:00 pm	3D CHARACTERIZATION AND MECHANICAL ANALYSIS OF POLYETHYLENE FOAMS PROCESSED IN RAPID ROTATIONAL FOAM MOLDING Wing Yi Pao, University of Ontario Institute of Technology
3:00 pm - 3:30 pm	3-DIMENSIONAL CHARACTERIZATION OF THE QUALITY OF FOAM-TO-SKIN BONDING OF RAPID ROTATIONALLY FOAM MOLDED INTEGRAL-SKIN CELLULAR COMPOSITES . UTKARSH, UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY
3:30 pm - 4:00 pm	SURFACE TREATMENT OF AGAVE FIBERS AND ITS COMPATIBILIZATION WITH PLA TO PRODUCE ROTATIONAL MOLDED BIOCOMPOSITES Jorge Robledo-Ortíz, Universidad de Guadalajara
4:00 pm - 4:30 pm	MECHANICAL CHARACTERIZATION OF POLYETHYLENE/CARBON NANOFIBER COMPOSITES PREPARED BY ROTATIONAL MOLDING Milton Vazquez Lepe, Universidad de Guadalajara
4:30 pm - 5:00 pm	OPTIMIZATION OF THE ROTATIONAL MOLDING PROCESSING OF AGAVE FIBER / LMDPE COMPOSITE MATERIALS Pedro Ortega-Gudiño, Researcher, Universidad de Guadalajara
5:00 pm - 5:30 pm	MORPHOLOGY AND MECHANICAL PROPERTIES OF POLY(LACTIC ACID)/POLYETHYLENE BLENDS PRODUCED BY ROTATIONAL MOLDING Eduardo Ruiz Silva, Universidad de Guadalajara
5:30 pm - 6:00 pm	ROTATIONAL MOLDING OF HYBRID COMPOSITES BASED ON LINEAR LOW DENSITY POLYETHYLENE/GROUND TIRE RUBBER/MAPLE WOOD FIBERS Denis Rodrigue, Professor, Université Laval
1:30 pm - 5:30 pm	<b>M18-Technical Marketing: Polymer Processing II(Moderator: Joe Golba)-Room S320C</b>
1:30 pm - 2:00 pm	New Overmolding TPEs in Applications with Unique Requirements Kushal Bahl, Teknor Apex Company
2:00 pm - 2:30 pm	Two Component Micro Molding

2:30 pm - 3:00 pm

Brian Heugh, Wittmann Battenfeld

Synventive's new synflow® technology allows molders greater ability than ever before to manipulate the filling of the cavities in an upgradable package.

Greg Osborn, Account Manager, Synventive Molding Solutions

3:00 pm - 3:30 pm

Cooling-Free Valve Gating

Joerg Schmidt, MHS - Mold Hotrunner Solutions Inc.

3:30 pm - 4:00 pm

Taking Injection Mold Cooling to the Next Level

Kenneth Johnson, Founder and President, MoldCool USA

4:00 pm - 4:30 pm

Advancements in Fiber Laser Workstations for Plastic Welding Applications

Ben Campbell, Assistant Professor of Engineering, Robert Morris University

4:30 pm - 5:00 pm

Innovations in plastic welding technologies: Hot Gas Welding

Anthony Verdesca, Bielomatik Inc

5:00 pm - 5:30 pm

Introducing STRIDE, a Collaborative Approach to Consulting and Contract R&D

Debra Massouda, Science Technology and Research Institute of Delaware (STRIDE)