



ANTEC[®] ORLANDO

The Plastics Technology Conference

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



Tuesday Afternoon

1:30 pm - 6:30 pm

1:30 pm - 6:30 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

1:30 pm - 6:00 pm

1:30 pm - 2:00 pm

T10-Additive Manufacturing: Design, Test, and 3D Print for Production(Moderators: Albert McGovern and David Tucker)-Room S320E

KEYNOTE: Design, Engineer, Test, 3D Print for Production-In That Order

Albert McGovern, Shure

3 Your Mind: To Print or not to Print, that is the Additive Manufacturing Question

Jim Allen, Vice President – North America, 3YOURMIND

Protolabs: Designing for Industrial 3D Printing

Thomas Davis, Applications Engineer, Proto Labs

Altair: Effective Subtraction before Additive Manufacturing: The Art of leveraging Constraints

Ravi Kunju, Vice President, Manufacturing Solutions, Altair

Siemens: Best practices for design of plastic 3D printed parts

Ashley Eckhoff, Siemens PLM Software

Fathom: The Opportunity with Direct Digital Manufacturing

Tomeo Wise, FATHOM

Veryst: Ensuring Mechanical Reliability of Additively Manufactured Parts Through Testing and Simulation

Mark Oliver, Veryst Engineering

3Degrees: How to Approach Material Validation for Production Parts

Mike Vasquez, Founder, 3Degrees

Case Study: The HP Printer that Prints Itself

Michael Shannon, HP

T11-Applied Rheology(Moderators: Himanshu Asthana and Tieqi Li)-Room S320A

KEYNOTE: The Rheological Intricacies of Soft Matter

Henning Winter

2:00 pm - 2:30 pm	Effect of Salt Addition on Dynamic Mechanical Properties for Poly(methyl methacrylate) Masayuki Yamaguchi, Japan Advanced Institute of Science and Technology
2:30 pm - 3:00 pm	SYNERGISTIC ABSORPTION OF MICROWAVE RADIATION IN PVDF HYBRID NANOCOMPOSITES CONTAINING MULTIWALL CARBON NANOTUBES AND FERRITE PARTICLES Uttandaraman Sundararaj, Professor, University of Calgary
3:00 pm - 3:30 pm	DMA - the other side of rheology Kevin Menard, Mettler-Toledo
3:30 pm - 4:00 pm	RHEOLOGY AS A TOOL TO UNDERSTAND ANTI-DRIP PROPERTIES IN FLAME RETARDANT POLYCARBONATE RESINS Manojkumar Chellamuthu, SABIC
4:00 pm - 4:30 pm	Nonlinear Viscoelastic Fluid Models with Fractal Time Derivative Donggang Yao, Georgia Institute of Technology
4:30 pm - 5:00 pm	Molecular Weight Distribution Prediction of Rheology against Gel Permeation Chromatography for Film Grade Polypropylene Hoda Bayazian, Ph.D Employee, Faculty of Mechanical Engineering, Paderborn University, Germany
5:00 pm - 5:30 pm	EFFECT OF MOLECULAR WEIGHT ON DYNAMICS OF LINEAR ISOTACTIC POLYPROPYLENE MELT AT VERY HIGH SHEAR RATES Martin Zatloukal, Research Professor, Tomas Bata University in Zlin
5:30 pm - 6:00 pm	Influence of Oscillating Surfaces on the Rheological Behavior of Thermoplastic Melt Julius Geis, TU Ilmenau
1:30 pm - 6:00 pm	T12-Extrusion: Single Screw(Moderator: Paul Andersen)-Room S320F
1:30 pm - 2:00 pm	EXTRUSION PERFORMANCE ANALYSIS PROTOCOL David Kazmer, UMass Lowell
2:00 pm - 2:30 pm	Melting and residence time in the single screw extrusion Clemens Martin Grosskopf, Department of Plastics Technology, University of Applied Sciences, Darmstadt, Germany
2:30 pm - 3:00 pm	A Network-Analysis-Based Comparative Study of the Throughput Behavior in Double Wave Screw Geometries Hans-Juergen Luger, Research Assistant, Institute of Polymer Extrusion and Compounding
3:00 pm - 3:30 pm	USE OF PRESSURE AND TEMPERATURE PROFILE INSIDE AN EXTRUDER FOR OPTIMIZING/TROUBLESHOOTING EXTRUSION PROCESSES John W.S. Lee, LS Cable & System
3:30 pm - 4:00 pm	Cost Analysis for Installing New and Optimized Screws for Single-Screw Extrusion Lines Mark A. Spalding, The Dow Chemical Company
4:00 pm - 4:30 pm	A Simple System Analysis for the Small Extrusion Screw and Die Jingyi Xu, Graham Engineering Corporation
4:30 pm - 5:00 pm	EXAMINATION OF POWER CONSUMPTION ON MELT SPINNING: MONO AND BI-

	<p>COMPONENT FIBERS Javier Vera Sorroche, UMass Lowell Investigation on the effects of the processing parameters on the replication quality of micro-structures in the extrusion embossing of polycarbonate films Florian Petzinka, Research Assistant, Institute of Plastics Processing</p>
5:00 pm - 5:30 pm	
5:30 pm - 6:00 pm	<p>EFFECT OF SCALE UP ON THERMAL HOMOGENEITY AND ENERGY EFFICIENCY IN SINGLE SCREW EXTRUSION Javier Vera Sorroche, UMass Lowell</p>
1:30 pm - 6:30 pm	<p>T13-Failure Analysis(Moderators: Jennifer Hoffman and Todd Menna)-Room S322</p>
1:30 pm - 2:30 pm	<p><i>KEYNOTE: Tan Delta - The Dimensionless Property That Tells You Almost Everything You Need To Know About A Polymeric Material</i> Michael Sepe, Michael P. Sepe, LLC</p>
2:30 pm - 3:00 pm	<p>Fractography: The Science & Art of Determining How Plastics Break Farzana Ansari, Senior Associate, Exponent</p>
3:00 pm - 3:30 pm	<p>Failure Analysis Using FT-IR and Raman Microspectroscopy Rui Chen, Thermo Fisher Scientific</p>
3:30 pm - 4:00 pm	<p>How to use thermoanalytical methods for failure analysis Tobias Pflock, Manager of the Business Field Polymer, NETZSCH-Gerätebau</p>
4:00 pm - 4:30 pm	<p>INVESTIGATION OF THE EFFECT OF STABILIZER SYSTEM, MEDIUM AND TEMPERATURE ON THE FATIGUE CRACK GROWTH RESISTANCE OF POLYPROPYLENE FOR A PROPER MATERIAL SELECTION Joerg Fischer, Assistant Professor, Johannes Kepler University Linz - Institute of Polymeric Materials and Testing</p>
4:30 pm - 5:00 pm	<p>FRACTURE PROPERTIES OF HDPE EXPOSED TO CHLORINATED WATER Susan Mantell, University of Minnesota</p>
5:00 pm - 5:30 pm	<p>Fatigue resistance and failure characterization of glass fiber reinforced PA grades Patrick R. Bradler, Institute of Polymeric Materials and Testing - Johannes Kepler University Linz</p>
5:30 pm - 6:00 pm	<p>RAMAN SPECTROSCOPIC DETECTION OF MICROSCOPIC STRUCTURAL CHANGES IN POLYETHYLENE DURING PHOTODEGRADATION Yusuke Hiejima, Kanazawa University</p>
6:00 pm - 6:30 pm	<p>ANY BULGING OR PANELING ISSUES FOR YOUR PACKAGES? Jay Yuan, Stress Engineering Services, Inc.</p>
1:30 pm - 6:00 pm	<p>T14-Polymer Analysis: Innovative Methods, Morphology, Rheology and Optical Analysis(Moderator: Greg Kamykowski)-Room S320H</p>
1:30 pm - 2:00 pm	<p><i>KEYNOTE: Polyolefin Elastomers: Material Science and End Use Applications</i> Seema Karande, Application Development Fellow , Dow Chemical</p>
2:00 pm - 2:30 pm	<p>Rheological Methods for Characterizing the Degree of Long Chain Branching in Polyethylene Terri Chen, Senior Applications Support Scientist , TA Instruments</p>

2:30 pm - 3:00 pm	Crystallization Behavior of Sheared Polyamide 66 Anne Gohn, Penn State University
3:00 pm - 3:30 pm	Effect of HNTs dispersion in PVDF on Morphology and its formation mechanism of tensile fractured surfaces Han-xiong Huang, South China University of Technology
3:30 pm - 4:00 pm	DETERMINATION OF FLAME RETARDANT MATERIALS IN PLASTICS USING A COMBINATION OF ANALYTICAL TECHNIQUES Yanika Schneider, EAG
4:00 pm - 4:30 pm	Open-cell foaming of PP/PTFE fibrillated composites Yu Guang Chen, University of Toronto
4:30 pm - 5:00 pm	CORE/SHELL STRUCTURE OF ELECTROSPUN POLYCARBONATE NANOFIBERS Yiyang Xu, Postdoctor, University of Wisconsin-Madison
5:00 pm - 5:30 pm	EFFECTS OF BIODEGRADABLE ADDITIVES ON THE NUCLEATION INTENSITY AND GROWTH RATE OF ISOTACTIC POLYPROPYLENE SPHERULITES Yousef Mubarak, The University of Jordan
5:30 pm - 6:00 pm	PELLET SHAPE CLASSIFICATION USING DEEP NEURAL NETWORKS Brenda Colegrove, The Dow Chemical Company
1:30 pm - 2:00 pm	T15-Medical Plastics: Materials and Processing for Medical Applications(Moderators: Louis Somlai and Ajay Padsalgikar)-Room S320B
1:30 pm - 6:00 pm	<i>KEYNOTE:Opportunities and Obstacles for Plastic Primary Packaging in Drug Delivery Devices</i> Sarah Clark, Chief Engineer and Leader of the Materials Engineering Team, Eli Lilly and Company
2:00 pm - 2:30 pm	Establishing Polymer Equivalency Process for Medical Device Application Shantanu Shivdekar, Boston Scientific
2:30 pm - 3:00 pm	High Performance Polymers for Medical Devices Marissa Tierno, Fluortek, Inc
3:00 pm - 3:30 pm	EVA Polymer as a Platform for Advanced Drug Delivery Don Loveday, Celanese
3:30 pm - 4:00 pm	Chemical and Thermal Analysis of the Surface Extractives of Medical Tubing of A Poly(ether-b-amide) Copolymer Using FTIR, GPC, and DSC Methods Xiaoping Guo, Abbott Laboratories
4:00 pm - 4:30 pm	SMART MATERIAL SELECTION FOR QUIET, SMOOTH-SLIDING MEDICAL DEVICES INCLUDING NEW COLOR CONCEPT Bruce Mulholland, Global Color Technology Manager, Celanese
4:30 pm - 5:00 pm	Processing of TPUs for Medical Applications Ian Pierson, Scientist II, Materials Technology, Abbott
5:00 pm - 5:30 pm	ANTIMICROBIAL BI-LAYER CATHETERS – EXTRUSION AND PERFORMANCE Timothy Largier, Thermoplastic Development Chemist, Foster Corporation
5:30 pm - 6:00 pm	Elastomeric to Engineered Thermoplastic Polyurethanes Anthony Walder, Lubrizol

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T16-Product Design and Development and Injection Molding Joint Session(Moderators: Lynzie Nebel and Erik Foltz)-Room S320D

Preventing Plastic Failure

Paul Tres, Founder, ETS inc

Panel Discussion: Wearable Electronics: Opportunities for Plastics

Cherry Tom, Emerging Technologies Intelligence Manager, IEEE Standards Association

Mukerrem (Miko) Cakmak, Reilly Professor of Materials Engineering & Mechanical Engineering , Purdue University

Matthew Kolmes, Operations and R&D, Supreme Corporation

David Rosenfeld, Technical Fellow, DuPont

Optimizing Design and Processing for Long Fiber Thermoplastic Parts

Erik Foltz, Senior Managing Engineer , The Madison Group

How Over The Wall Engineering Affects Process Capability and Process Robustness

Suhas Kulkarni, President, FimmTech Inc

How Poor Design Can Severely Limit Materials, Tooling and Processing Capabilities

Vikram Bhargava, Author, Trainer and Consultant

THE EFFECT OF RAPID HEATING COOLING MOLDING ON POLYCARBONATE BASED MATERIAL PROPERTIES

Jessica Boyer, Covestro LLC

T17-Technical Marketing: Applications(Moderator: Donna Davis)-Room S320C

Improve the performance of your retort flexible film

Sergi Salva Saez, Technical Development Manager, UBE America Inc.

Thermally purified carbons for food contact applications – a case study on EU compliance

Rijo Jacob Robin, Product Manager, Superior Graphite

Biopolymer Compounds for Applications Requiring Marine Degradation

Stanley Dudek, polymer Processing Tech, LLC

Novel Applications of Beta Nucleated Polypropylene in Film, Thermoforming, and Injection Molding Applications

Philip Jacoby, Consultant, Jacoby Polymer Consulting

Copolyester based WPC(Wood Plastic Composites)

Tae Young Kim, SK Chemicals

Schulamid High Performance Nylon for Fuel System Applications

Ying Shi, A. Schulman Inc

Extending the Use and Properties of PVDF Polymer

Jason Pomante, Arkema

Nanolayered Next Generation High Energy Density Capacitors for Electric Vehicles

Michel Ponting, PolymerPlus LLC

Advances in Wear and Friction Solutions

Edward Williams, SABIC

T18-New Technology Forum: Wearable Technology(Moderators: Maggie

1:30 pm - 2:00 pm

2:00 pm - 2:30 pm

2:30 pm - 3:00 pm

3:00 pm - 3:30 pm

4:00 pm - 6:30 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

6:00 pm - 6:30 pm

Baumann and Roger Avakian)-Room S320G

Wearable Electronics — Overview and Standards

Cherry Tom, Emerging Technologies Intelligence Manager, IEEE Standards Association

VOLT Smart Yarns

Matthew Kolmes, Operations and R&D, Supreme Corporation

Production of "Z" Aligned Ultra-Sensitive, Flexible and Transparent Piezoelectric

Nanocomposites

Mukerrem (Miko) Cakmak, Reilly Professor of Materials Engineering & Mechanical Engineering , Purdue University

Materials Requirements for Stretchable Printed Electronics

David Rosenfeld, Technical Fellow, DuPont

T19-Joining of Plastics and Composites(Moderator: Miranda Marcus)-Room S320G

Laser Welding Plastics: Rapid Prototyping to Mass Production using Quasi-simultaneous and 2D/3D Mask Welding

Andrew Geiger, Manager, Laser Plastic Welding Division, Leister Technologies

Benefits of Vibration Welding with IR Preheat

John Paul Kurpiewski, Director of Global Products and Programs, Emerson - Branson

Dukane's Recent Advancements in Plastic Welding Technology

Alex Savitski, Dukane IAS

New Plastics Joining Technologies

Jason Dornbos, Marketing Communications Manager, Extol, Inc.

Ultrasonic Welding 20 kHz vs. 15 kHz - Challenges Posed by Highly Crystalline Material

Dave Krysiak, Sonics & Materials