



# ANTEC<sup>®</sup> ORLANDO

The Plastics Technology Conference

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



## Thursday Afternoon

1:30 pm - 6:00 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

### TH11-Automotive: Process & Simulations(Moderator: Tom Pickett)-Room S320E

CONNECTING RHEOLOGY OF POLYOLEFIN ELASTOMERS TO DISPERSION IN A POLYPROPYLENE MATRIX VIA MODELING AND EXPERIMENTS WITH SIMPLE FLOW FIELDS

Jeff Munro, Dow Chemical

CORE-BACK TECHNOLOGY FOR AUTOMOTIVE BODY INTERIOR APPLICATIONS  
steve McClintock, SABIC

DYNAMIC WATER PENETRATION PREDICTION FOR PUSH-BACK PROCESS IN WATER-ASSISTED INJECTION MOLDING

Venny Yang, President, CoreTech System (Moldex3D) Co., Ltd.

How plastics helps to conquer the new challenges of vehicle electrification

Werner Posch, Draexlmaier Group

Development of Low Emission Polyolefin Composites for Automotive Interiors

Tanmay Pathak, R&D Engineer, A. Schulman

Effect of Grain Pattern and Talc Content on Scratch and Mar Behaviors of Textured Thermoplastic Olefins

Shuoran Du, Texas A & M University

Vehicle Lightweighting and Improved Crashworthiness - Plastics and Hybrid Solutions

Fred Chang, Automotive Structures Project Leader, SABIC

A NOVEL GLASS FILLER REINFORCED COMPOUND FOR AUTOMOTIVE INTERIOR PARTS

Cheolhee Park, GS Caltex

Bumper to Bumper - Removing Contaminants from Molded Plastic Parts with Dry Ice

Steve Wilson, Director, Global Business Development - Plastics, Rubber & Composites, Cold Jet, LLC

1:30 pm - 5:00 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

1:30 pm - 5:30 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

**TH12-Composites: Nanocomposites(Moderator: Derrick Amoabeng)- Room S320F**

SYNTHESIS, CHARACTERIZATION AND WATER APPLICATION OF MICROCELLULAR INJECTION MOLDED PPgMA/MMT NANOCOMPOSITES

Shyh-Shin Hwang, Professor, Chien-hsin University of Science and Technology

PREPARATION OF POLYPROPYLENE SINGLE-POLYMER COMPOSITES WITH GRAPHENE NANOPATELETS BY FILM-STACKING

Mingwang Shao, Student, Beijing Institute of Technology

ISOLATING THE EFFECT OF POLYMER-FILLER INTERACTION ON POLYMER COMPOSITE PROPERTY ENHANCEMENT: THE EXAMPLE OF POLYPROPYLENE/HALLOYSITE HYBRIDS

Tong Wei, Northwestern University

NUMERICAL AND EXPERIMENTAL STUDIES ON FLOW AND WARPAGE DURING RESIN TRANSFER MOLDING PROCESS

Sejin Han, Autodesk

High Fracture Resistance, Filler Adhesion and Dispersion in Epoxy Carbon Nanofiber Composites

Muhammad Anwer, University of Toronto

DEVELOPING ULTRASONIC PROCESSING OF CNT NANOPAPER/SOLVENTLESS EPOXY PREPREG

Dan Zhang, The Ohio State University

IN SITU VITAMIN C REDUCTION OF GRAPHENE OXIDE FOR PREPARING FLEXIBLE TPU NANOCOMPOSITES WITH HIGH DIELECTRIC PERMITTIVITY

Han-xiong Huang, South China University of Technology

**TH13-Injection Molding: Molding Industry Technologies(Moderators: Chad Ulven and RayMcKee)-Room S320H**

Flowcon Plus, Digital Water flow Regulator

Edgar Sanchez, Wittmann Battenfeld

Induction Heat Cool With SABIC Resins: AN Intro to High definition Plastics

Jos van Gisbergen, SABIC

Get The Wear Out

Steve Wilson, Director, Global Business Development – Plastics, Rubber & Composites , Cold Jet, LLC

Regional Sales Manager- Robots and Automation

Robert Arsenault, Wittmann Battenfeld

Injection Molding: 3D-Printed Molds vs. Metal Tooling

Jeff Schipper, Director of Special Operations, Proto Labs

“Smart Factories”: The Future of Plastics Production with 4.0 Connectivity & Condition Monitoring System (CMS)

Markus Klaus, Divisional Manager, Injection Molding Machines, Wittmann Battenfeld

IMPROVING ACCURACY OF MOLD FILLING SIMULATIONS WITH EXPERIMENTAL

5:00 pm - 5:30 pm	<p>DATA FROM FAST SCANNING CHIP CALORIMETRY  Anne Gohn, Penn State University  INJECTION MOLDING PARTS WITH INTEGRATED ALL-INKJET PRINTED STRAIN GAUGE FOR CONDITION MONITORING</p>
1:30 pm - 5:00 pm	<p>Thomas Mitterlehner, Researcher and PhD Student, Johannes Kepler University Linz  <b>TH14-Non-Halogen Flame Retardant(Moderators: Rubinder Lakhman, Roger Avakian &amp; Tim Reilly-Room S322</b></p>
1:30 pm - 2:00 pm	<p>New Technology in Non-halogen Flame Retardants: Oxyimides  Rudolf Pfaendner, Division Director Plastics, Fraunhofer Institute</p>
2:00 pm - 2:30 pm	<p>Approaches to the Commercialization of NHFR Technologies: A European Perspective  Maryline Deseix, Leader, Non-Halogen Flame Retardant Technology Platform, PolyOne</p>
2:30 pm - 3:00 pm	<p>Reduced Flammability Polyurethane Foams  Gordon Nelson, Vice President for Academic Affairs, Florida Institute of Technology</p>
3:00 pm - 3:30 pm	<p>Towards a Carbon to Building Concept: The Material and Assembly Challenges  Mark Goulthorpe, Associate Professor, Massachusetts Institute of Technology</p>
3:30 pm - 4:00 pm	<p>Achieving International Building Code Recognition of Polymeric Building Materials: Challenges for Material and Assemble Designers  Nicholas Dempsey, Professor, Worcester Polytechnic Institute</p>
4:00 pm - 4:30 pm	<p>Flame Retardants in Consumer Products: Overview and Perspective on the Proposed CPSC Ban  Jared Schwartz, Exponent Inc.  Andrew Worthen, Exponent</p>
4:30 pm - 5:00 pm	<p>Development &amp; Commercialization of NHFR Technologies  Nicholas Dempsey, Professor, Worcester Polytechnic Institute  Maryline Deseix, Leader, Non-Halogen Flame Retardant Technology Platform, PolyOne  Mark Goulthorpe, Associate Professor, Massachusetts Institute of Technology  Gordon Nelson, Vice President for Academic Affairs, Florida Institute of Technology  Rudolf Pfaendner, Division Director Plastics, Fraunhofer Institute  Jared Schwartz, Exponent Inc.  Andrew Worthen, Exponent</p>
1:30 pm - 6:30 pm	<p><b>TH15-Product Design and Development(Moderators: Pavan Valavala and Mohan Shanmugan)-Room S320D</b></p>
1:30 pm - 2:00 pm	<p>MODELING DOMING DEFLECTION OF CAPS &amp; CLOSURES WITH FINITE ELEMENT METHOD  Wenbo Xu, Dow Chemical</p>
2:00 pm - 2:30 pm	<p>QUASI-STATIC, NON-LINEAR, EXPLICIT FINITE ELEMENT ANALYSIS OF SMALL PET BOTTLES  Naser Imran Hossain, Niagara Bottling</p>
2:30 pm - 3:00 pm	<p>Design for manufacturability – 3D-CAD design methodology for spiral milled polymer processing tools  Phil Hungenberg, Universität Duisburg-Essen</p>

3:00 pm - 3:30 pm	Knowledge-based Product Planning and Designing of Injection-molded Parts Rene Andrae, University of Duisburg-Essen
3:30 pm - 4:00 pm	INFLUENCE OF THERMAL TREATMENT ON THE MECHANICAL PROPERTIES OF THERMOPLASTIC COMPOSITES OBTAINED BY LARGE-FORMAT 3D PRINTING PROCESS Miguel A. Hidalgo Salazar, Professor, Universidad Autónoma de Occidente
4:00 pm - 4:30 pm	Yes, You Can Break Certain Design Rules and Still Have a Successful Product - a Logical Look at the Implications Vikram Bhargava, Author, Trainer and Consultant
4:30 pm - 5:00 pm	Polypropylene/ Polyvinylidene fluoride Fibrous Water/Fuel Filters Produced by a Unique Multilayer Co-Extrusion Process Cong Zhang, Case Western Reserve University
5:00 pm - 5:30 pm	Technical Evaluation of Loctite HY4060GY: The Ideal Replacement for Traditional 2K 5-Minute Epoxies Matthew Miner, Henkel
5:30 pm - 6:00 pm	
1:30 pm - 6:30 pm	<b>TH17-Thermoplastic Materials and Foams(Moderator: Donna Davis)-Room S320G</b>
1:30 pm - 2:00 pm	INFLUENCE OF THE COMPOUNDING PROCESS PARAMETERS ON THE DISPERSION AND MATERIAL PROPERTIES OF GRAPHENE-BASED PP COMPOSITES USING A TWIN-SCREW EXTRUDER UNDER INDUSTRY RELATED CONDITIONS Maximilian Adamy, IKV Aachen
2:00 pm - 2:30 pm	Open-cell foaming of PP/PTFE fibrillated composites Yuhui Qiao, Mr
2:30 pm - 3:00 pm	AN APPLICATION OF THERMOPLASTIC POLYURETHANE FOAMING IN HANDRAIL EXTRUSION Qingping Guo, EHC Canada
3:00 pm - 3:30 pm	Flexural Testing of PET-NanoFiber and PP Foamed Composites Lun Howe Mark, University of Toronto
3:30 pm - 4:00 pm	Protected biofilm growth in macroporous polyvinylidene fluoride carriers for biological organic removal from municipal wastewater Pardis Ghahramani, York University
4:00 pm - 4:30 pm	Impact Management and Protection for Playing Surfaces using Expanded Polyolefin Particle Foam – New Materials and Designs Steven Sopher, Technical Director, JSP International
4:30 pm - 5:00 pm	ULTRA-LOW DENSITY FOAMS OF NANOCRYSTALLINE CELLULOSE REINFORCED WITH POLYVINYLE ALCOHOL Nahal Aliheidari, Ph.D Student, Washington State University
5:00 pm - 5:30 pm	A System for Visualizing and Measuring Stress of Plastic Flows Under Shear Conditions

5:30 pm - 6:00 pm	Taylor Ducharme, University of Vermont Mining the Value from Oil Sands Tailings Ponds
6:00 pm - 6:30 pm	Pavani Cherukupally, University of Toronto Highly Viscous Polyamides Made of Cast Polyamide 6 Recyclates
1:30 pm - 3:30 pm	Benjamino Rocco Formisano, Research Associate, Institut für Kunststofftechnik - University of Stuttgart <b>TH18-Vinyl Plastics: Additives and Testing(Moderator: John Scott)/Thermoset Split Session-Room S320B</b>
1:030 pm - 2:00 pm	Copolyesters as Heat Distortion Temperature Modifiers in Rigid PVC
2:00 pm - 2:30 pm	Robert Young, Principal Scientist, Eastman Chemical Co Heat stabilising flexible PVC with layered double hydroxide derivatives
2:30 pm - 3:00 pm	Dan Molefe, University Temperature Control in Accelerated Laboratory Weathering Testing of Plastics
3:00 pm - 3:30 pm	Andy Francis, Weathering and Corrosion Projects Manager, Q-Lab A New Method to Determine TF and Clash Berg Stiffness (ASTM D1043), Using a Rotational Rheometer
3:30 pm - 4:00 pm	Greg Kamykowski, SPE INNOVATIVE AND USEFUL CHARACTERISTIC VALUES FOR THE PRO-CESsing OF THERMOSETTING MOLDING COMPOUNDS
4:00 pm - 4:30 pm	Thomas Scheffler, TU Chemnitz - Professur Kunststoffe SIMULATION OF MOLD FILLING CHARATERIZATION OF PHENOLIC INJECTION MOLDING COMPOUNDS WITH SLIP BOUNDARY CONDITION
4:30 pm - 5:00 pm	Ngoc Tu Tran, TU Chemnitz FABRICATION OF SYNERGISTIC FLAME-RETARDANT UNSATURATED POLYESTER RESIN BASED ON AMMONIUM POLYPHOSPHATE AND ALUMINUM HYDROXIDE
5:00 pm - 5:30 pm	Xingxing Shi, South china university of technology NON-ISOCYANATE POLYURETHANE NETWORKS CAN BE MELT-REPROCESSED WITH FULL PROPERTY RECOVERY ASSOCIATED WITH CROSS-LINK DENSITY: THE CASE OF POLYHYDROXYURETHANE NETWORKS
5:30 pm - 6:00 pm	John Torkelson, Northwestern University Frontally Polymerizable Gels for Double-Network High-Performance Resin Systems
1:30 pm - 6:00 pm	Matthew Lampe, University of Massachusetts Amherst <b>TH19-Technical Marketing-Materials II(Moderator: Mark Spalding)-Room S320C</b>
1:30 pm - 2:00 pm	New Developmental Copolyester
2:00 pm - 2:30 pm	Katherine Hofmann, Eastman Chemical Company SABIC THERMOCOMPTM HIGH MODULUS DUCTILE (HMD) PORTFOLIO
2:30 pm - 3:00 pm	Emily He, SABIC Nylon6,6 rich Co- and Terpolymers: How Tuning Thermal Behavior Enhances Functionality and Enables New Applicaiton Spaces

3:00 pm - 3:30 pm	Jacob Ray, Ascend Performance Materials A new grade of High melt strength polystyrene for the xps foam market Ted Harris, Total Petrochemicals and Refining USA, Inc.
3:30 pm - 4:00 pm	Tailor-Made UHMWPE by High Shear Polymer Modification Binay Patel, Co-Founder and NSF/ASEE Research Fellow, Zzyzx Polymers, LLC
4:00 pm - 4:30 pm	Radilon XTreme: high-temperature polyamides robert zappa, Radici Plastics USA
4:30 pm - 5:00 pm	Low Emission Compounds - Automotive Specifications & Applications Tanmay Pathak, R&D Engineer, A. Schulman
5:00 pm - 5:30 pm	Enhancement of Protective Packaging Films with Cyclic Olefin Copolymers (COC) Paul Tatarka, Market Development, TOPAS Advanced Polymers, Inc.
5:30 pm - 6:00 pm	Biodegradable PHA for Use in Fashion Textiles Anne Schauer-Gimenez, Vice President of Customer Engagement and Co-Founder, Mango Materials
1:30 pm - 5:30 pm	<b>TH21: Mix(Moderator: Brad Guilani)-Room S320A</b>
1:30 pm - 2:00 pm	Influence of gas-counter pressure on the foaming behavior and the cell morphology of flexible polyurethane foam Daniel Schneider, Institute of Plastic Processing at RWTH Aachen University
2:00 pm - 2:30 pm	Wave Conveying™ Systems Doug Brewster, Conveying Product Manager, Conair
2:30 pm - 3:00 pm	NEW GENERATION HDPE FOR PRESSURIZED APPLICATIONS – BEYOND PE100 Jonathan Rabiei Tabriz, Global Marketing Manager, Segment Utilities , SABIC Petrochemicals
3:00 pm - 3:30 pm	SABIC solutions for personal hygiene applications: industry trends and SABIC offerings, and developments Jelena Bozovic-Vukic, SABIC
3:30 pm - 4:00 pm	Kepital H100 Jim DiVita, KEP Americas
4:00 pm - 4:30 pm	Super High Flow Valox for Connectors Kenneth Thiel, SABIC
4:30 pm - 5:00 pm	Volumetric to Gravimetric Conversion Riley Wittmann, UW Stout
5:00 pm - 5:30 pm	Stylight - New Material Solution for Lightweight Design Brian Haggart, INEOS Styrolution