



8:30 am - 11:00 am

8:30 am - 9:00 am

9:00 am - 9:30 am

**Extrusion- Forming Processes I**

JW Grand Ballroom 8

Moderator: Karen Xiao

Invited Paper: Properties, Processing, and Handling of Ethylene Vinyl Alcohol Copolymer Resins

Michail Dolgovski, Technical Service and Development Engineer , Kuraray

Gene Medlock, Kuraray

Troubleshooting Extrusion Using chillWARE Computer Simulation For Sagging And Collapsing Of Pipe Ends

Kenny Saul, Managing Director, SHS plus GmbH

9:30 am - 10:00 am	Improvement of the extrusion foaming properties of externally plasticized cellulose acetate by reactive melt mixing using a multifunctional reactive oligomer
10:00 am - 10:30 am	Sven Hendriks, Institute of Plastics Processing at RWTH Aachen University Cycle time reduction by water spray cooling in thermoforming
8:30 am - 11:00 am	Jonathan Martens, Institute of Plastics Processing at RWTH Aachen University <b>Extrusion-Reactive &amp; Mixing Processes I</b> JW Grand Ballroom 7 Moderator: David Bigio
8:30 am - 9:00 am	Invited Paper:Trends in Single and Twin Screw Extrusion for Industrial and Pharmaceutical Applications
9:00 am - 9:30 am	Maria del Pilar Noriega, ICIPC Usin Co-Rotating Twin Screw Extruder for Fibre Reinforced
9:30 am - 10:00 am	Karnik Tarverdi, Brunel University London Melt Devolatilization Extrusion Process for Brominated Polymeric Flame Retardant
10:00 am - 10:30 am	Eungkyu Kim, Dow Chemical The Mixing of Flame Retardant Polymer Materials In a Novel Co-Rotating Non-Twin Screw Extruder
10:30 am - 11:00 am	Baiping Xu, Guangdong Industry Polytechnic The Planetary Extruder: PVC Direct Extrusion
8:30 am - 10:30 am	Michael Batton, Entex Rust & Mitschke GmbH <b>Joining of Plastics and Composites- Mechanical and Hybrid Joining</b> Room 102 Moderator: Phil Bates
8:30 am - 9:00 am	Experiments with Hot Tool Joining of HDPE to Mild Steel
9:00 am - 9:30 am	Avraham Benatar, The Ohio State University Joining Investigations of Polymer-Metal-Hybrids for Permanantly Non-Leaking Applications
9:30 am - 10:00 am	Stefan Jarka, Uni Kassel Preliminary Analytical Modeling of Heat Input In Friction Riveting
10:00 am - 10:30 am	Sergio Amancio, Helmholtz-Zentrum Geesthacht Research On Mechanical Coupling Strength and Coupling Design of The ABS Injection Molding

8:00 am - 11:00 am	Lili Chen, Donghua University <b>Flexible Packaging-Structure-Property Relationship and End-Use Applications</b> White River C/D
8:00 am - 8:30 am	Moderator: Tom Dunn, Flexpacknology Long Chain Branched / High Melt Strength Linear Low Density Polyethylene for Blown and Cast Film Applications
8:30 am - 9:00 am	Edward Phillips, Polyolefins Specialist Coating Trials for an Antimicrobial Coating Containing Nisin (2.5%) Using Gravure and Flexographic Converting Processes
9:00 am - 9:30 am	Kay Cooksey, Clemson University Predicting the Impact Puncture Response of Multilayer Flexible Food Packages Using Explicit Finite Element Models
9:30 am - 10:00 am	Barry Morris, Technical Fellow, DuPont Capillary Coextrusion: A New Process for Creating Small-Scale Coextruded Films
10:00 am - 10:30 am	Patrick Lee, Assistant Professor, University of Vermont Case Studies of PP Based OBC for Multilayer Packaging
10:30 am - 11:00 am	Yushan Hu, The Dow Chemical Company Agility Performance LDPE as a Blend Component in High Throughput and High Bubble Stability Blown Film Applications
8:30 am - 10:00 am	Teresa Karjala, The Dow Chemical Company <b>Sustainability Session- Sustainable Materials and Processes</b> White River H
8:30 am - 9:00 am	Moderator: Louis Reifschneider Farmlands for Plastics, Textiles, Dyes or Food? Are Bio-based Materials Really Sustainable?
9:00 am - 9:30 am	Majid Sarmadi, Professor, University of WI-Madison PC/ABS Recovered From Shredded Waste Electrical and Electronic Equipment
9:30 am - 10:00 am	Brian Riise, Director of Research and Development, MBA Polymers Inc. A Stude On the Mechanical Properties of Recycling PC/ABS Blends Produced By Vent-Type Injection Molding
8:30 am - 11:00 am	Yongli Wang, Donghua University <b>Rotational Molding Session</b>

8:30 am - 9:00 am	Room 312 Moderator: Denis Rodrigue Studying Polymer Particle Sintering With an Automated Imaging System
9:00 am - 9:30 am	Michael Thompson, McMaster University Impact Properties Analysis of Roto-Molded Polyethylene and Polypropylene at Wide Range of Temperature
9:30 am - 10:00 am	Abu Saifullah, Bournemouth University Multi-Layer Rotational Molding of PE-PA Utilizing a Multiphase Interlayer to Generate Mechanical Adhesion
10:00 am - 10:30 am	Martin Löhner, Institut of Polymer Technology, Friedrich-Alexander-Universität Erlangen-Nürnberg A Three-layer Foamed Composite Prepared by Rotational Molding
10:30 am - 11:00 am	Ruben Gonzalez-Nunez, Universidad de Guadalajara Fiber Surface Treatment As An Approach To Increase Fiber Content In Agave-LMDPE Composites Produced By Rotomolding
11:00 am - 11:30 am	Erick Omar Cisneros Lopez Thermal Analysis of the Rotational Molding Cycle Followed by Internal Air Temperature Profiles: An Application for Foamed Polyethylene
8:00 am - 11:00 am	Denis Rodrigue <b>Color &amp; Appearance Session I</b> Room 302/303
8:00 am - 9:00 am	Moderator: Ann Smeltzer Keynote: Color Trends for 2016
9:00 am - 9:30 am	Doreen Becker, ASI Fundamental Factors for Opacity and Tint Generated with Titanium Dioxide
9:30 am - 10:00 am	Philipp Niedenzu, Chemours Impact of Pigments on the Dimensional Stability of Plastics
10:00 am - 10:30 am	James Rediske, Technical Specialist, BASF Color Development for Non Warping Thin Wall Injection Molding
10:30 am - 11:00 am	Brian West, Techmer PM Continued Studies of the Effects of Metallic Pigment Dispersions on the Physical Properties of Thermoplastics

8:30 am - 12:30 pm	Jeffrey Drusda, Silberline <b>Injection Molding- Simulation 1</b> White River A Moderator: Ray McKee An Approach to Decomposition of Deformation From a Molding Simulation
8:30 am - 9:00 am	
9:00 am - 9:30 am	Prasanna Kondapalli, Sr. Application Development Engineer, BASF Corp. Accounting for Pressure Dependant and Elongational Viscosities to Improve Injection Pressure Predictions in Mold Filling Analysis
9:30 am - 10:00 am	Erik Foltz, The Madison Group A Research Framework for Cooling Rate-Dependant PVT Models
10:00 am - 10:30 am	Peter Cook, Autodesk Australia Pty Ltd Warpage Simulation Of Injection Over-Molding Plastics On Continuous Fiber Reinforced Composites
10:30 am - 11:00 am	Zhihao Zuo, Autodesk Verification of Numerical approach and experiment in Using PvT Properties of Polymer to control Injection Molded Products
8:30 am - 11:30 am	Che-Wei Chang, Chung Yuan Christian University <b>Injection Molding and Thermoplastic Materials and Foam- Microcellular Foam</b> White River J Moderator:Shu-Kai Yeh Use of Core Retraction to Achieve Low Density Foams in Microcellular Injection Molded Polypropylene Parts
8:30 am - 9:00 am	
9:00 am - 9:30 am	Thomas Ellingham, UW-Madison Hrishikesh Kharbas, University of Wisconsin Thick Part Microcellular Foam Injection Molding
9:30 am - 10:00 am	Lun Howe Mark, University of Toronto Mechanism of Cell Nucleation In High-Pressure Foam Injection Molding Followed By Precise Mold-Opening
10:00 am - 10:30 am	Vahid Shaayegan, University of Toronto Analysis of the Foam Injection Molding Process Using a Chemical Blowing Agent
10:30 am - 11:00 am	Sejin Han, Autodesk Foam Injection Molding Of Polylactide with In-Situ Fibrillated Polytetrafluoroethylene

11:00 am - 11:30 am	Raymond Chu, University of Toronto Development of PLA/Cellulosic Fibre Composite Foams Using Injection Molding: Foaming and Mechanical Properties
9:00 am - 11:00 am	WeiDan Ding, University of Toronto <b>Composites- Natural / Bio Composites</b> White River G Moderator: Tim Johnson
9:00 am - 9:30 am	Characterization of Polypropylene/Bamboo Fiber Composites Modified With Polyethylene Grafted Maleic Anhydride
9:30 am - 10:00 am	Jitlada Boonlertsamut, Kyoto Institute of Technology Green Plastics: Utilizing Chicken Feather Keratin to Improve the Thermo-Mechanical Properties of Polyurethane Composites
10:00 am - 10:30 am	Firoozeh Pourjavaheri, Ph.D Student, RMIT University Improving the Impact Properties of PLA by Incorporation of PHA, TPU and Carbon Nanofibers
10:30 am - 11:00 am	Muhammad Anwer, University of Toronto Study on high-performance of WPC (Wood Polymer Composite)
8:00 am - 11:30 am	Hu YongXu <b>Engineering Properties and Structure: Novel &amp; Packaging Applications</b> Room 103/104 Moderator: Rajen Patel
8:00 am - 8:30 am	Moderator: John Trent Development of Advanced Microlayer Coextruded Films for Optical and Packaging Applications
8:30 am - 9:00 am	CC Chau, Rainbow Package Industrial Thermally Triggered Shape Memory Sensors via Nanolayered Coextrusion of Commercial Polymers Materials
9:00 am - 9:30 am	Michael Ponting, PolymerPlus LLC Packaging Supplier Partnerships: Critical for Innovation
9:30 am - 10:00 am	John Garnett, ConAgra Foods High Performance High Density Polyethylene (HDPE) for Hot Fill Closure Applications
	Yijian Lin, The Dow Chemical Company

10:00 am - 10:30 am	Holding Force Study of Polyolefin Resins for Stretch Hood Film Application
10:30 am - 11:00 am	Yi Jin, The Dow Chemical Company Modified PET compound with improved mechanical properties for thermoforming applications
11:00 am - 11:30 am	Zheng Tian, Bemis Company Investigation of the Preparation and Superiority Properties of the Novel Propylene-Based Elastic HMAs
8:30 am - 11:00 am	Hefei Chang, National Institute of Clean-and-Low-Carbon Energy <b>Bioplastics Session</b> White River I Moderator: David Grewell
8:30 am - 9:00 am	Soy protein isolate films with improved mechanical properties via bio-based dialdehydecaboxymethyl cellulose crosslinking
9:00 am - 9:30 am	Ting Zheng, Clemson University Energy-efficient Processing of Rendered Animal Proteins as Value Added Bio-crosslinkers in High-Strength Thermosets
9:30 am - 10:00 am	Xiaoyan Yu, Ph.D Student, Clemson University Reduced Post Crystallization of Polyhydroxybutyrate (PHB)
10:00 am - 10:30 am	Linda Goebel, University of Stuttgart Analysis on Mechanical Properties of Poly-lactic Acid Composites with Organic-Montmorillonite by Injection Molding
10:30 am - 11:00 am	Qi-Hong Liao, National Taiwan university of science and technology Mechanical Properties and Effects of Additives of Cellulose-PLA Composite
8:30 am - 10:30 am	Hiroki Sakamoto, Osaka Gas Co., Ltd. <b>Medical Plastics: Advances in Manufacturing and Materials for Medical Applications</b> Room 305/306 Moderator: Michael Wallick
8:30 am - 9:00 am	Getting to Compliance: a Guide to Setting Up a Medical Plastics Processing Operation
9:00 am - 9:30 am	Matt Zelkovich, General Manager, Medical , Conair Group Environmental Stress Cracking of Medical Thermoplastics: Assessing Lifetime of High Performance Amorphous Resins in Presence of Hospital Cleaners

9:30 am - 10:00 am	Robert Klein, Polymer Scientist, Stress Engineering Injection Molding of Solid Oral Dosage Forms
10:00 am - 10:30 am	Stephan Laske, Key Researcher, Research Center Pharmaceutical Engineering Microscopy of Intentionally Oxidized Mesh Material
8:30 am - 11:30 am	Stephanie Benight, Senior Scientist, Exponent <b>Additive Manufacturing/3D Session I</b> Room 101
9:00 am - 9:30 am	Solving FDM, SLA Material Problems No location
9:30 am - 10:00 am	Lance Pickens, Made Solid Thermoplastic Polyurethane for FDM
10:00 am - 10:30 am	Jake McDonough, R&D Manager, Ninja Tek/Fenner AM Tooling and Conformal Cooling
10:30 am - 11:00 am	John Tenbusch, Founder, Linear Mold, Moog Reinforced AM / 3Dp Parts
11:00 am - 11:30 am	John Balydon, Chief Manufacturing Officer, Impossible Objects Thermography and Weld Strength Characterization of Thermoplastic 3D Printing
8:00 am - 11:30 am	Kal Migler, Staff Scientist, NIST <b>Fellow's Fundamentals Forum</b> White River B
8:00 am - 8:30 am	Screw design for polyolefin resins and smooth-bore single-screw extruders
8:30 am - 9:00 am	Mark Spalding, Fellow in the Materials & Parts Processing Group , Dow Chemical Company Toughening Polymers with Functionalized Graphene Oxide
9:00 am - 9:30 am	Chris Macosko, Professor, University of Minnesota Smart Polymers and Composites with Multifunctional and Adaptive Properties
9:30 am - 10:00 am	Hani Naguib, Professor, University of Toronto Design of nanoscale polymeric building blocks for high efficiency separation problems
10:00 am - 10:30 am	Sadhan Jana, Professor, University of Akron Innovative Nano-fibril Technology

10:30 am - 11:00 am

Chul Park, Distinguished Professor, University of Toronto  
The Development of Novel Thermoplastic Composite Materials for Use in Additive Manufacturing

11:00 am - 11:30 am

Don Baird, Alexander F. Giacco Professor of Chemical Engineering, Virginia Tech  
Sustainable Plastics and the Center for Bioplastics and Biocomposites

David Grewell, Professor, Iowa State University