8:30 am - 11:00 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  
Sven Hendriks, Institute of Plastics Processing at RWTH Aachen University

10:00 am - 10:30 am  
Cycle time reduction by water spray cooling in thermoforming  
Jonathan Martens, Institute of Plastics Processing at RWTH Aachen University

8:30 am - 11:00 am  
**Extrusion-Reactive & Mixing Processes I**  
Moderator: David Bigio

8:30 am - 9:00 am  
Invited Paper: Trends in Single and Twin Screw Extrusion for Industrial and Pharmaceutical Applications  
Maria del Pilar Noriega, ICIPC

9:00 am - 9:30 am  
Usin Co-Rotating Twin Screw Extruder for Fibre Reinforced  
Karnik Tarverdi, Brunel University London

9:30 am - 10:00 am  
Melt Devolatilization Extrusion Process for Brominated Polymeric Flame Retardant  
Eungkyu Kim, Dow Chemical

10:00 am - 10:30 am  
The Mixing of Flame Retardant Polymer Materials In a Novel Co-Rotating Non-Twin Screw Extruder  
Baiping Xu, Guangdong Industry Polytechnic

10:30 am - 11:00 am  
The Planetary Extruder: PVC Direct Extrusion  
Michael Batton, Entex Rust & Mitschke GmbH

8:30 am - 10:30 am  
**Joining of Plastics and Composites- Mechanical and Hybrid Joining**  
Room 102  
Moderator: Phil Bates

8:30 am - 9:00 am  
Experiments with Hot Tool Joining of HDPE to Mild Steel  
Avraham Benatar, The Ohio State University

9:00 am - 9:30 am  
Joining Investigations of Polymer-Metal-Hybrids for Permanently Non-Leaking Applications  
Stefan Jarka, Uni Kassel

9:30 am - 10:00 am  
Preliminary Analytical Modeling of Heat Input In Friction Riveting  
Sergio Amancio, Helmholtz-Zentrum Geesthacht

10:00 am - 10:30 am  
Research On Mechanical Coupling Strength and Coupling Design of The ABS Injection Molding
8:00 am - 11:00 am

Flexible Packaging-Structure-Property Relationship and End-Use Applications
Lili Chen, Donghua University

Moderator: Tom Dunn, Flexpacknology

8:00 am - 8:30 am

Long Chain Branched / High Melt Strength Linear Low Density Polyethylene for Blown and Cast Film Applications
Edward Phillips, Polyolefins Specialist

8:30 am - 9:00 am

Coating Trials for an Antimicrobial Coating Containing Nisin (2.5%) Using Gravure and Flexographic Converting Processes
Kay Cooksey, Clemson University

9:00 am - 9:30 am

Predicting the Impact Puncture Response of Multilayer Flexible Food Packages Using Explicit Finite Element Models
Barry Morris, Technical Fellow, DuPont

9:30 am - 10:00 am

Capillary Coextrusion: A New Process for Creating Small-Scale Coextruded Films
Patrick Lee, Assistant Professor, University of Vermont

10:00 am - 10:30 am

Case Studies of PP Based OBC for Multilayer Packaging
Yushan Hu, The Dow Chemical Company

10:30 am - 11:00 am

Agility Performance LDPE as a Blend Component in High Throughput and High Bubble Stability Blown Film Applications
Teresa Karjala, The Dow Chemical Company

8:30 am - 10:00 am

Sustainability Session- Sustainable Materials and Processes

White River H

Moderator: Louis Reifschneider

8:30 am - 9:00 am

Farmlands for Plastics, Textiles, Dyes or Food? Are Bio-based Materials Really Sustainable?
Majid Sarmadi, Professor, University of WI-Madison

9:00 am - 9:30 am

PC/ABS Recovered From Shredded Waste Electrical and Electronic Equipment
Brian Riise, Director of Research and Development, MBA Polymers Inc.

9:30 am - 10:00 am

A Study On the Mechanical Properties of Recycling PC/ABS Blends Produced By Vent-Type Injection Molding
Yongli Wang, Donghua University

8:30 am - 11:00 am

Rotational Molding Session
8:30 am - 9:00 am
Studying Polymer Particle Sintering With an Automated Imaging System
Michael Thompson, McMaster University

9:00 am - 9:30 am
Impact Properties Analysis of Roto-Molded Polyethylene and Polypropylene at Wide Range of Temperature
Abu Saifullah, Bournemouth University

9:30 am - 10:00 am
Multi-Layer Rotational Molding of PE-PA Utilizing a Multiphase Interlayer to Generate Mechanical Adhesion
Martin Löhner, Institut of Polymer Technology, Friedrich-Alexander-Universität Erlangen-Nürnberg

10:00 am - 10:30 am
A Three-layer Foamed Composite Prepared by Rotational Molding
Ruben Gonzalez-Nunez, Universidad de Guadalajara

10:30 am - 11:00 am
Fiber Surface Treatment As An Approach To Increase Fiber Content In Agave-LMDPE Composites Produced By Rotomolding
Erick Omar Cisneros Lopez

11:00 am - 11:30 am
Thermal Analysis of the Rotational Molding Cycle Followed by Internal Air Temperature Profiles: An Application for Foamed Polyethylene
Denis Rodrigue

8:00 am - 11:00 am
Color & Appearance Session I

8:00 am - 9:00 am
Keynote: Color Trends for 2016
Doreen Becker, ASI

9:00 am - 9:30 am
Fundamental Factors for Opacity and Tint Generated with Titanium Dioxide
Philipp Niedenzu, Chemours

9:30 am - 10:00 am
Impact of Pigments on the Dimensional Stability of Plastics
James Rediske, Technical Specialist, BASF

10:00 am - 10:30 am
Color Development for Non Warping Thin Wall Injection Molding
Brian West, Techmer PM

10:30 am - 11:00 am
Continued Studies of the Effects of Metallic Pigment Dispersions on the Physical Properties of Thermoplastics
8:30 am - 12:30 pm

**Injection Molding- Simulation 1**

Moderator: Ray McKee

Jeffrey Drusda, Silberline

**8:30 am - 9:00 am**

An Approach to Decomposition of Deformation From a Molding Simulation

Prasanna Kondapalli, Sr. Application Development Engineer, BASF Corp.

**9:00 am - 9:30 am**

Accounting for Pressure Dependant and Elongational Viscosities to Improve Injection Pressure Predictions in Mold Filling Analysis

Erik Foltz, The Madison Group

**9:30 am - 10:00 am**

A Research Framework for Cooling Rate-Dependant PVT Models

Peter Cook, Autodesk Australia Pty Ltd

**10:00 am - 10:30 am**

Warpage Simulation Of Injection Over-Molding Plastics On Continuous Fiber Reinforced Composites

Zhihao Zuo, Autodesk

**10:30 am - 11:00 am**

Verification of Numerical approach and experiment in Using PvT Properties of Polymer to control Injection Molded Products

Che-Wei Chang, Chung Yuan Christian University

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**8:30 am - 11:30 am**

**Injection Molding and Thermoplastic Materials and Foam- Microcellular Foam**

Moderator: Shu-Kai Yeh

Jeffrey Drusda, Silberline

**8:30 am - 9:00 am**

Use of Core Retraction to Achieve Low Density Foams in Microcellular Injection Molded Polypropylene Parts

Thomas Ellingham, UW-Madison

Hrishikesh Kharbas, University of Wisconsin

**9:00 am - 9:30 am**

Thick Part Microcellular Foam Injection Molding

Lun Howe Mark, University of Toronto

**9:30 am - 10:00 am**

Mechanism of Cell Nucleation In High-Pressure Foam Injection Molding Followed By Precise Mold-Opening

Vahid Shaayegan, University of Toronto

**10:00 am - 10:30 am**

Analysis of the Foam Injection Molding Process Using a Chemical Blowing Agent

Sejin Han, Autodesk

**10:30 am - 11:00 am**

Foam Injection Molding Of Polylactide with In-Situ Fibrillated Polytetrafluoroethylene
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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>11:00 am - 11:30 am</td>
<td>Raymond Chu, University of Toronto</td>
<td>Development of PLA/Cellulosic Fibre Composite Foams Using Injection Molding: Foaming and Mechanical Properties</td>
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<tr>
<td>9:00 am - 11:00 am</td>
<td>WeiDan Ding, University of Toronto</td>
<td>Composites- Natural / Bio Composites</td>
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<tr>
<td>9:00 am - 9:30 am</td>
<td>Jitlada Boonlertsamut, Kyoto Institute of Technology</td>
<td>Characterization of Polypropylene/Bamboo Fiber Composites Modified With Polyethylene Grafted Maleic Anhydride</td>
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<tr>
<td>9:30 am - 10:00 am</td>
<td>Firoozeh Pourjavaheri, Ph.D Student, RMIT University</td>
<td>Improving the Impact Properties of PLA by Incorporation of PHA, TPU and Carbon Nanofibers</td>
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<tr>
<td>10:00 am - 11:00 am</td>
<td>Muhammad Anwer, University of Toronto</td>
<td>Study on high-performance of WPC (Wood Polymer Composite)</td>
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<td>8:00 am - 11:30 am</td>
<td>CC Chau, Rainbow Package Industrial</td>
<td>Engineering Properties and Structure: Novel &amp; Packaging Applications</td>
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<td>8:00 am - 8:30 am</td>
<td>Michael Ponting, PolymerPlus LLC</td>
<td>Packaging Supplier Partnerships: Critical for Innovation</td>
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<tr>
<td>8:30 am - 9:00 am</td>
<td>John Garnett, ConAgra Foods</td>
<td>High Performance High Density Polyethylene (HDPE) for Hot Fill Closure Applications</td>
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<tr>
<td>9:00 am - 9:30 am</td>
<td>Yijian Lin, The Dow Chemical Company</td>
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</table>
10:00 am - 10:30 am
Holding Force Study of Polyolefin Resins for Stretch Hood Film Application
Yi Jin, The Dow Chemical Company

10:30 am - 11:00 am
Modified PET compound with improved mechanical properties for thermoforming applications
Zheng Tian, Bemis Company

11:00 am - 11:30 am
Investigation of the Preparation and Superiority Properties of the Novel Propylene-Based Elastic HMAs
Hefei Chang, National Institute of Clean-and-Low-Carbon Energy

8:30 am - 11:00 am
Bioplastics Session
White River I
Moderator: David Grewell

8:30 am - 9:00 am
Soy protein isolate films with improved mechanical properties via bio-based dialdehydecarboxymethyl cellulose crosslinking
Ting Zheng, Clemson University

9:00 am - 9:30 am
Energy-efficient Processing of Rendered Animal Proteins as Value Added Bio-crosslinkers in High-Strength Thermosets
Xiaoyan Yu, Ph.D Student, Clemson University

9:30 am - 10:00 am
Reduced Post Crystallization of Polyhydroxybutyrate (PHB)
Linda Goebel, University of Stuttgart

10:00 am - 10:30 am
Analysis on Mechanical Properties of Poly-lactic Acid Composites with Organic-Montmorillonite by Injection Molding
Qi-Hong Liao, National Taiwan university of science and technology

10:30 am - 11:00 am
Mechanical Properties and Effects of Additives of Cellulose-PLA Composite
Hiroki Sakamoto, Osaka Gas Co., Ltd.

8:30 am - 10:30 am
Medical Plastics: Advances in Manufacturing and Materials for Medical Applications
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
Matt Zelkovich, General Manager, Medical, Conair Group

9:00 am - 9:30 am
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
Additive Manufacturing/3D Session I
Room 101

8:30 am - 11:30 am
Stephanie Benight, Senior Scientist, Exponent

9:00 am - 9:30 am
Solving FDM, SLA Material Problems
No location
Lance Pickens, Made Solid
Thermoplastic Polyurethane for FDM

10:00 am - 10:30 am
AM Tooling and Conformal Cooling
Jake McDonough, R&D Manager, Ninja Tek/Fenner

10:30 am - 11:00 am
Reinforced AM / 3Dp Parts
John Tenbusch, Founder, Linear Mold, Moog

11:00 am - 11:30 am
Thermography and Weld Strength Characterization of Thermoplastic 3D Printing
John Balydon, Chief Manufacturing Officer, Impossible Objects

8:00 am - 11:30 am
Fellow's Fundamentals Forum
White River B

8:00 am - 8:30 am
Screw design for polyolefin resins and smooth-bore single-screw extruders
Mark Spalding, Fellow in the Materials & Parts Processing Group , Dow Chemical Company

8:30 am - 9:00 am
Toughening Polymers with Functionalized Graphene Oxide
Chris Macosko, Professor, University of Minnesota

9:00 am - 9:30 am
Smart Polymers and Composites with Multifunctional and Adaptive Properties
Hani Naguib, Professor, University of Toronto

9:30 am - 10:00 am
Design of nanoscale polymeric building blocks for high efficiency separation problems
Sadhan Jana, Professor, University of Akron

10:00 am - 10:30 am
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