

8:30 am - 11:00 am

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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

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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 Cycle time reduction by water spray cooling in thermoforming

Jonathan Martens, Institute of Plastics Processing at RWTH Aachen University

Extrusion-Reactive & Mixing Processes I

JW Grand Ballroom 7 Moderator: David Bigio

Invited Paper: Trends in Single and Twin Screw Extrusion for Industrial and

Pharmaceutical Applications

Maria del Pilar Noriega, ICIPC

Usin Co-Rotating Twin Screw Extruder for Fibre Reinforced

Karnik Tarverdi, Brunel University London

Melt Devolatilization Extrusion Process for Brominated Polymeric Flame Retardant

Eungkyu Kim, Dow Chemical

The Mixing of Flame Retardant Polymer Materials In a Novel Co-Rotating Non-Twin Screw Extruder

Baiping Xu, Guangdong Industry Polytechnic

The Planetary Extruder: PVC Direct Extrusion

Michael Batton, Entex Rust & Mitschke GmbH

Joining of Plastics and Composites- Mechanical and Hybrid Joining

Room 102

Moderator: Phil Bates

Experiments with Hot Tool Joining of HDPE to Mild Steel

Avraham Benatar, The Ohio State University

Joining Investigations of Polymer-Metal-Hybrids for Permanantly Non-Leaking Applications

Stefan Jarka, Uni Kassel

Preliminary Analytical Modeling of Heat linput In Friction Riveting

Sergio Amancio, Helmholtz-Zentrum Geesthacht

Research On Mechanical Coupling Strength and Coupling Design of The ABS Injection Molding

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Lili Chen, Donghua University

Flexible Packaging-Structure-Property Relationship and End-Use Applications

White River C/D

Moderator: Tom Dunn, Flexpacknology

Long Chain Branched / High Melt Strength Linear Low Density Polyethylene for Blown and Cast Film Applications

Edward Phillips, Polyolefins Specialist

Coating Trials for an Antimicrobial Coating Containing Nisin (2.5%) Using Gravure and Flexographic Converting Processes

Kay Cooksey, Clemson University

Predicting the Impact Puncture Response of Multilayer Flexible Food Packages Using Explicit Finite Element Models

Barry Morris, Technical Fellow, DuPont

Capillary Coextrusion: A New Process for Creating Small-Scale Coextruded Films

Patrick Lee, Assistant Professor, University of Vemont Case Studies of PP Based OBC for Multilayer Packaging

Yushan Hu, The Dow Chemical Company

Agility Performance LDPE as a Blend Component in High Throughput and High Bubble Stability Blown Film Applications

Teresa Karjala, The Dow Chemical Company

Sustainabilty Session- Sustainable Materials and Processes

White River H

Moderator: Louis Reifschneider

Farmlands for Plastics, Textiles, Dyes or Food? Are Bio-based Materials Really Sustainable?

Majid Sarmadi, Professor, University of WI-Madison

PC/ABS Recovered From Shredded Waste Electrical and Electronic Equipment

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

Yongli Wang, Donghua University

Rotational Molding Session

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Room 312

Moderator: Denis Rodrigue

Studying Polymer Particle Sintering With an Automated Imaging System

Michael Thompson, McMaster University

Impact Properties Analysis of Roto-Molded Polyehtylene and Polypropylene at Wide Range of Temperature

Abu Saifullah, Bournemouth University

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

A Three-layer Foamed Composite Prepared by Rotational Molding

Ruben Gonzalez-Nunez, Universidad de Guadalajara

Fiber Surface Treatment As An Approach To Increase Fiber Content In Agave-LMDPE Composites Produced By Rotomolding

Erick Omar Cisneros Lopez

Thermal Analysis of the Rotational Molding Cycle Followed by Internal Air Temperature Profiles: An Application for Foamed Polyehtylene

Denis Rodrigue

Color & Appearance Session I

Room 302/303

Moderator: Ann Smeltzer

Keynote: Color Trends for 2016

Doreen Becker, ASI

Fundamental Factors for Opacity and Tint Generated with Titanium Dioxide

Philipp Niedenzu, Chemours

Impact of Pigments on the Dimensional Stability of Plastics

James Rediske, Technical Specialist, BASF

Color Development for Non Warping Thin Wall Injection Molding

Brian West, Techmer PM

Continued Studies of the Effects of Metallic Pigment Dispersions on the Physical Properties of Thermoplastics

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Jeffrey Drusda, Silberline

Injection Molding- Simulation 1

White River A

Moderator: Ray McKee

An Approach to Decomposition of Deformation From a Molding Simulation

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

Accounting for Pressure Dependant and Elongational Viscosities to Improve Injection

Pressure Predictions in Mold Filling Analysis

Erik Foltz, The Madison Group

A Research Framework for Cooling Rate-Dependant PVT Models

Peter Cook, Autodesk Australia Pty Ltd

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

Zhihao Zuo, Autodesk

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

Che-Wei Chang, Chung Yuan Christian University

Injection Molding and Thermoplastic Materials and Foam- Microcellular Foam White River J

Moderator:Shu-Kai Yeh

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

Thomas Ellingham, UW-Madison

Hrishikesh Kharbas, University of Wisconsin

Thick Part Microcellular Foam Injection Molding

Lun Howe Mark, University of Toronto

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

Vahid Shaayegan, University of Toronto

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

Sejin Han, Autodesk

Foam Injection Molding Of Polylactide with In-Situ Fibrillated Polytetrafluoroethylene

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Raymond Chu, University of Toronto

Development of PLA/Cellulosic Fibre Composite Foams Using Injection Molding: Foaming and Mechanical Properties

WeiDan Ding, University of Toronto

Composites- Natural / Bio Composites

White River G

Moderator: Tim Johnson

Characterization of Polypropylene/Bamboo Fiber Composites Modified With Polyethylene

Grafted Maleic Anhydride

Jitlada Boonlertsamut, Kyoto Institute of Technology

Green Plastics: Utilizing Chicken Feather Keratin to Improve the Thermo-Mechanical

Properties of Polyurethane Composites

Firoozeh Pourjavaheri, Ph.D Student, RMIT University

Improving the Impact Properties of PLA by Incorporation of PHA, TPU and Carbon Nanofibers

Muhammad Anwer, University of Toronto

Study on high-performance of WPC (Wood Polymer Composite)

Hu YongXu

Engineering Properties and Structure: Novel & Packaging Applications

Room 103/104

Moderator: Rajen Patel Moderator: John Trent

Development of Advanced Microlayer Coextruded Films for Optical and Packaging

Applications

CC Chau, Rainbow Package Industrial

Thermally Triggered Shape Memory Sensors via Nanolayered Coextrusion of Commercial Polymers Materials

Michael Ponting, PolymerPlus LLC

Packaging Supplier Partnerships: Critical for Innovation

John Garnett, ConAgra Foods

High Performance High Density Polyethylene (HDPE) for Hot Fill Closure Applications

Yijian Lin, The Dow Chemical Company

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Holding Force Study of Polyolefin Resins for Stretch Hood Film Application

Yi Jin, The Dow Chemical Compangy

Modified PET compound with improved mechanical properties for thermoforming applications

Zheng Tian, Bemis Company

Investigation of the Preparation and Superiority Properties of the Novel Propylene-Based Elastic HMAs

Hefei Chang, National Institute of Clean-and-Low-Carbon Energy

Bioplastics Session

White River I

Moderator: David Grewell

Soy protein isolate films with improved mechanical properties via bio-based dialdehydecarboxymethyl cellulose crosslinking

Ting Zheng, Clemson University

Energy-efficient Processing of Rendered Animal Proteins as Value Added Bio-crosslinkers in High-Strength Thermosets

Xiaoyan Yu, Ph.D Student, Clemson University Reduced Post Crystallization of Polyhydroxybutyrate (PHB)

Linda Goebel, University of Stuttgart

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 Mechanical Properties and Effects of Additives of Cellulose-PLA Composite

Hiroki Sakamoto, Osaka Gas Co., Ltd.

Medical Plastics: Advances in Manufacturing and Materials for Medical Applications

Room 305/306

Moderator: Michael Wallick

Getting to Compliance: a Guide to Setting Up a Medical Plastics Processing Operation

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

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Robert Klein, Polymer Scientist, Stress Engineering Injection Molding of Solid Oral Dosage Forms

Stephan Laske, Key Researcher, Research Center Pharmaceutical Engineering Microscopy of Intentionally Oxidized Mesh Material

Stephanie Benight, Senior Scientist, Exponent

Additive Manufacturing/3D Session I

Room 101

Solving FDM, SLA Material Problems

No location

Lance Pickens, Made Solid

Thermoplastic Polyurethane for FDM

Jake McDonough, R&D Manager, Ninja Tek/Fenner AM Tooling and Conformal Cooling

John Tenbusch, Founder, Linear Mold, Moog Reinforced AM / 3Dp Parts

John Balydon, Chief Manufacturing Officer, Impossible Objects
Thermography and Weld Strength Characterization of Thermoplastic 3D Printing

Kal Migler, Staff Scientist, NIST

Fellow's Fundamentals Forum

White River B

Screw design for polyolefin resins and smooth-bore single-screw extruders

Mark Spalding, Fellow in the Materials & Parts Processing Group , Dow Chemical Company

Toughening Polymers with Functionalized Graphene Oxide

Chris Macosko, Professor, University of Minnesota Smart Polymers and Composites with Multifunctional and Adaptive Properties

Hani Naguib, Professor, University of Toronto

Design of nanoscale polymeric building blocks for high efficiency separation problems

Sadhan Jana, Professor, University of Akron Innovative Nano-fibril Technology

10:30 am - 11:00 am

11:00 am - 11:30 am

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

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