
## Thursday Afternoon

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| 1:30 pm - 6:00 pm | **TH11-Automotive: Process & Simulations(Moderator: Tom Pickett)-Room S320E** |
| 1:30 pm - 2:00 pm | CONNECTING RHEOLOGY OF POLYOLEFIN ELASTOMERS TO DISPERSION IN A POLYPROPYLENE MATRIX VIA MODELING AND EXPERIMENTS WITH SIMPLE FLOW FIELDS<br>Jeff Munro, Dow Chemical |
| 2:00 pm - 2:30 pm | CORE-BACK TECHNOLOGY FOR AUTOMOTIVE BODY INTERIOR APPLICATIONS<br>steve McClintock, SABIC |
| 2:30 pm - 3:00 pm | DYNAMIC WATER PENETRATION PREDICTION FOR PUSH-BACK PROCESS IN WATER-ASSISTED INJECTION MOLDING<br>Venny Yang, President, CoreTech System (Moldex3D) Co., Ltd. |
| 3:00 pm - 3:30 pm | How plastics helps to conquer the new challenges of vehicle electrification<br>Werner Posch, Draexlmaier Group |
| 3:30 pm - 4:00 pm | Development of Low Emission Polyolefin Composites for Automotive Interiors<br>Tanmay Pathak, R&D Engineer, A. Schulman |
| 4:00 pm - 4:30 pm | Effect of Grain Pattern and Talc Content on Scratch and Mar Behaviors of Textured Thermoplastic Olefins<br>Shuoran Du, Texas A & M University |
| 4:30 pm - 5:00 pm | Vehicle Lightweighting and Improved Crashworthiness - Plastics and Hybrid Solutions<br>Fred Chang, Automotive Structures Project Leader, SABIC |
| 5:00 pm - 5:30 pm | A NOVEL GLASS FILLER REINFORECED COMPOUND FOR AUTOMOTIVE INTERIOR PARTS<br>Cheolhee Park, GS Caltex |
| 5:30 pm - 6:00 pm | Bumper to Bumper - Removing Contaminants from Molded Plastic Parts with Dry Ice<br>Steve Wilson, Director, Global Business Development – Plastics, Rubber & Composites , Cold Jet, LLC |

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| 1:30 pm - 5:00 pm | **TH12-Composites: Nanocomposites(Moderator: Derrick Amoabeng)- Room S320F** |
| 1:30 pm - 2:00 pm | SYNTHESIS, CHARACTERIZATION AND WATER APPLICATION OF MICROCELLULAR INJECTION MOLDED PPgMA/MMT NANOCOMPOSITES<br>Shyh-Shin Hwang, Professor, Chien-hsin University of Science and Technology |
| 2:00 pm - 2:30 pm | PREPARATION OF POLYPROPYLENE SINGLE-POLYMER COMPOSITES WITH GRAPHENE NANOPLATELETS BY FILM-STACKING<br>Mingwang Shao, Student, Beijing Institute of Technology |
| 2:30 pm - 3:00 pm | ISOLATING THE EFFECT OF POLYMER-FILLER INTERACTION ON POLYMER COMPOSITE PROPERTY ENHANCEMENT: THE EXAMPLE OF POLYPROPYLENE/HALLOYSITE HYBRIDS<br>Tong Wei, Northwestern University |
| 3:00 pm - 3:30 pm | NUMERICAL AND EXPERIMENTAL STUDIES ON FLOW AND WARPAGE DURING RESIN TRANSFER MOLDING PROCESS<br>Sejin Han, Autodesk |
| 3:30 pm - 4:00 pm | High Fracture Resistance, Filler Adhesion and Dispersion in Epoxy Carbon Nanofiber Composites<br>Muhammad Anwer, University of Toronto |
| 4:00 pm - 4:30 pm | DEVELOPING ULTRASONIC PROCESSING OF CNT NANOPAPER/SOLVENTLESS EPOXY PREPREG<br>Dan Zhang, The Ohio State University |
| 4:30 pm - 5:00 pm | IN SITU VITAMIN C REDUCTION OF GRAPHENE OXIDE FOR PREPARING FLEXIBLE TPU NANOCOMPOSITES WITH HIGH DIELECTRIC PERMITTIVITY<br>Han-xiong Huang, South China University of Technology |
| 1:30 pm - 5:30 pm | **TH13-Injection Molding: Molding Industry Technologies(Moderators: Chad Ulven and RayMcKee)-Room S320H** |
| 1:30 pm - 2:00 pm | Flowcon Plus, Digital Water flow Regulator<br>Edgar Sanchez, Wittmann Battenfeld |
| 2:00 pm - 2:30 pm | Induction Heat Cool With SABIC Resins: AN Intro to High definition Plastics<br>Jos van Gisbergen, SABIC |
| 2:30 pm - 3:00 pm | Get The Wear Out<br>Steve Wilson, Director, Global Business Development – Plastics, Rubber & Composites , Cold Jet, LLC |
| 3:00 pm - 3:30 pm | Regional Sales Manager- Robots and Automation<br>Robert Arsenault, Wittmann Battenfeld |
| 3:30 pm - 4:00 pm | Injection Molding: 3D-Printed Molds vs. Metal Tooling<br>Jeff Schipper, Director of Special Operations, Proto Labs |
| 4:00 pm - 4:30 pm | “Smart Factories”: The Future of Plastics Production with 4.0 Connectivity & Condition Monitoring System (CMS)<br>Markus Klaus, Divisional Manager, Injection Molding Machines, Wittmann Battenfeld |
| 4:30 pm - 5:00 pm | IMPROVING ACCURACY OF MOLD FILLING SIMULATIONS WITH EXPERIMENTAL |

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

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| 3:00 pm - 3:30 pm | Knowledge-based Product Planning and Designing of Injection-molded Parts<br>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<br>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<br>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<br>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<br>Matthew Miner, Henkel |
| 5:30 pm - 6:00 pm | |
| 1:30 pm - 6:30 pm | **TH17-Thermoplastic Materials and Foams(Moderator: Donna Davis)-Room S320G** |
| 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<br>Maximilian Adamy, IKV Aachen |
| 2:00 pm - 2:30 pm | Open-cell foaming of PP/PTFE fibrillated composites<br>Yuhui Qiao, Mr |
| 2:30 pm - 3:00 pm | AN APPLICANTION OF THERMOPLASTIC POLYURETHANE FOAMING IN HANDRAIL EXTRUSION<br>Qingping Guo, EHC Canada |
| 3:00 pm - 3:30 pm | Flexural Testing of PET-NanoFiber and PP Foamed Composites<br>Lun Howe Mark, University of Toronto |
| 3:30 pm - 4:00 pm | Protected biofilm growth in macroporous polyvinilidene fluoride carriers for biological organic removal from municipal wastewater<br>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<br>Steven Sopher, Technical Director, JSP International |
| 4:30 pm - 5:00 pm | ULTA-LOW DENSITY FOAMS OF NANOCRYSTALLINE CELLULOSE REINFORCED WITH POLYVINYLE ALCOHOL<br>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 |

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

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