HOTEL & TRANSPORTATION
A variety of hotels are available at different prices. Note that all hotel accommodations are handled for this event by the NPE Housing Team. Free shuttle bus service is available from NPE2015 designated hotels and the Convention Center Monday through Friday (March 23-27) starting at 7:30 a.m. Routes and map are available through the link below. The local airport is Orlando International (MCO); for travel information, including air travel, car rental as well as airport shuttle, visit: http://www.npe.org/general-information/travel-and-housing

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SUNDAY, MARCH 22

12:30 pm-2:30 pm: Leadership Awards & Luncheon

Join SPE as we recognize significant contributions made to the Society and the plastics industry. Honored at this event will be our top four awards as well as the SPE President’s Cup, HSM, Fellow, Pinnacle, Committee and other yearly awards. We will also include the President’s Pin Ceremony as our incoming President takes his post.

International Award
Richard Spontak, North Carolina State University

Business Management Award
Charles Sholtis, Plastic Molding Technology Inc.

Education Award
Sarah Morgan, University of Southern Mississippi

Research/Engineering Technology Award
Suresh Shah, Delphi Corporation (Retired)

The four awards noted above will be presented at the Hall of Fame Reception and Ceremony on Sunday night in the Linda W. Chapin Theatre at the Orange County Convention Center. Further information is online at: http://www.plasticsindustry.org/HallofFame2015. $55 entry fee for guests.

5:00 pm-6:00 pm: Mission Possible – Student Focus Group
Sponsored by the SPE Next Generation Advisory Board

MONDAY, MARCH 23

8:30 am-6:00 pm: ANTEC® Student and Professional Poster Sessions

This year in digital format – all posters will be presented by students and industry professionals on flat screens in tandem with the technical sessions

9:00 am-11:00 am: Panel - 360° Leadership for Young Professionals
Hear experiences of how other young professionals moved to management positions in the plastics field during this interactive session.

11:00 am-12:30 pm: Technical Plenary Session & SPE Annual Business Meeting
The Role of Nanotechnology in Current and Future Space Missions
Michael Meador, NASA's Manager of Game Changing Development Program's Nanotechnology Project & Chief of the NASA Glenn Polymers Branch

1:30 pm-5:00 pm: New Technology Forum
Innovating Within a Global Compliance Environment
Presented by speakers from UL, REACH (ECHA), PolyOne, FAA, FDA

1:30 pm-5:00 pm: Fundamentals in Plastics
Presented by speakers from SPE's Fellows, a learning session from direct experiences

1:30 pm-5:00 pm: Panel – Technical Entrepreneurship
How do you research, finance, and market your business ideas?
SPECIAL EVENTS & NETWORKING OPPORTUNITIES

TUESDAY, MARCH 24

10:00 am-4:00 pm: The Plastics Race
Once again, teams will race to the finish and some great prizes while learning & responding to randomly generated questions in this new twist on the scavenger hunt.
$20 entry fee per person.
Sponsored by the SPE Next Generation Advisory Board

11:30 am-12:30 pm: Special 3-D Plenary Session
ARBURG Plastic Freeforming—Additive Manufacturing of Plastic Parts Using Standard Granulates
Heinz Gaub, Managing Director Technology & Engineering, ARBURG

1:30 pm-5:00 pm: New Technology Forum
3-D Printing With a Focus on Material Development
Presented by speakers from Shapeways, Materialise, ARBURG, Oak Ridge, Teknor Apex

WEDNESDAY, MARCH 25

8:30 am-12:00 pm: Plastics University
Sponsored by the SPE Next Generation Advisory Board

8:30 am-12:00 pm: New Technology Forum
Advances in Batteries and Super-Capacitors
Presented by speakers from LBNL, University Missouri-Columbia, Exponent, Blue Spark Technologies, Wildcat Discovery Technologies

1:30 pm-5:00 pm: 3D Super Session
New Advances in Additive Manufacturing/3D Printing
Organized by the SPE Additive Manufacturing/3Dp Working Group

2:30 pm-5:00 pm: Student Speed Interview Session
Sponsored by the Next Generation Advisory Board
MONDAY MORNING SESSIONS

M1 Bioplastics
Bioplastics Session

8:30
NOVEL POLY (LACTIC ACID) FOAMS: MICRO TO SUB-MICRON SIZE TRANSITION
2082495 | Praphulla Tiwary, Queen's University

9:00
SYNTHESIS AND CHARACTERIZATION OF BIOPOLYESTERS FROM REFINED CRUDE GLYCEROL AND SUCCINIC ACID
2086268 | Valerio Oskar, University of Guelph

9:30
VEGETABLE-BASED COPOLYMERS BASED ON BLEND OF ACRYLATED EPOXIDIZED SOYBEAN OIL AND TUNG OIL
2091712 | Samy Madbouly, Iowa State University

10:00
BIoplastics FOR SOLAR THERMAL APPLICATIONS: POTENTIAL OF BIO-POLY(ETHYLENE) AND POLY(TRIMETHYLENE TEREPTHALATE) FOR SWIMMING POOL SOLAR COLLECTORS
2090947 | Andrea Klein, Montanuniversitaet Leoben

M2 Color and Appearance
Colored Resin Topics
Moderator: Jack Ladsen

8:30
INTRODUCTION TO COLOR THEORY
KEYNOTE | Bruce Mulholland, Celanese

9:00
OPTIMIZING COLORING METHODS FOR PLASTICS “WHAT’S THE BEST COLORING METHOD FOR YOUR APPLICATION?”
2090218 | Jonathan Till, Uniform Color Company

9:30
FORMULATION STRATEGY TO ACHIEVE HIGHLY COLORABLE AND WEATHERABLE ASA
2139678 | Steve Blazey, A.Schulman, Inc.

10:00
COLORANT SOLUTIONS TO MEET GLOBAL PACKAGING REGULATIONS
2098608 | Sharon Her, Uniform Color Company

10:30
EFFECT OF PROCESS VARIABLES ON PIGMENT DISPERSION IN A POLYCARBONATE BASED COMPOUND PLASTIC
2095651 | Shahid Ahmed, UOIT

M3 Composites
Thermoplastic Composites I
Moderator: Antoine Rios

8:30
WALL THICKNESS DISTRIBUTION OF CONTINUOUS GLASS FIBER REINFORCED POLYAMIDE 6 COMPOSITE PARTS FORMED BY GAS PRESSURE
2089749 | Christian Gröschel, Institute of Polymer Technology

9:00
MATRIX EFFECTS ON LONG FIBER ORIENTATION DISTRIBUTIONS WITHIN INJECTION MOlDED END-GATED PLAQUES
2095105 | Kevin Herrington, Virginia Tech

9:30
DIRECT FIBER FEEDING INJECTION MOLDING OF GLASS FIBER REINFORCED POLYOXYMETHYLENE/POLY (LACTIC ACID) BLEND COMPOSITES
2135754 | Suchalinee Mathurosemontri, Kyoto Institute of Technology

10:00
EFFECTS OF PROCESSING PARAMETERS ON EXPERIMENTAL FIBER ORIENTATION OF GLASS FIBER-REINFORCED INJECTION MOlDED COMPOSITES
2134930 | Rebecca Minnick, Virginia Tech
10:30 EFFECT OF VARIABLE FIBER ORIENTATION ON MATERIAL PROPERTIES IN EXTRUDED POLYMER COMPOSITES WITH MULTI-SCALE ADDITIVES
2136131 | Jason Nixon, University of Maryland, College Park

M4 Composites/Engineering Properties and Structure
Nanostructures, Properties, & Applications

8:30 THE POTENTIAL FOR GRAPHENE NANOPLATELETS TO REINFORCE AND ADD MULTIFUNCTIONALITY TO POLYMERS AND COMPOSITES
KEYNOTE L. Drzal

9:30 CHARACTERIZATION OF MELT MIXED PP COMPOSITES WITH NEW NANOSTRUCTURED CARBON MATERIALS
2109509 | Vicki Flaris, Bronx Community College

10:00 REINFORCEMENT EFFECTS IN AMORPHOUS COPOLYESTER NANOCOMPOSITES
2139618 | Daniel Schmidt, University of Massachusetts Lowell

10:30 SYNTHESIS OF LIGNIN BASED CARBON PARTICLES AND THEIR PERFORMANCE AS FILLERS IN BIONANOCOMPOSITES
2086363 | Manjusri Misra, University of Guelph

M5 Electrical & Electronic
Electrical & Electronic Session

8:30 EFFECTS OF CYCLOALKYLCARBOXYLIC ACID DERIVATIVES AS COADSORBENTS ON THE PHOTOVOLTAIC PERFORMANCE OF DYE-SENSITIZED SOLAR CELLS
2085145 | Hiroaki Matsuyoshi, Osaka Gas Co.,Ltd.

9:00 EFFECT OF INTERPHASE MODULATION AND ORIENTATION ON DIELECTRIC PROPERTIES OF PET/P(VDF-HFP) MULTILAYER FILMS
2093278 | Kezhen Yin, Case Western Reserve University

9:30 CHANGEABLE THERMAL MANAGEMENT FOR LED-LIGHTING
2094975 | Florian Mieth, University of Kassel

10:00 COMPOSITES FOR SHIELDING ELECTROMAGNETIC RADIATION
2096659 | Veronika Vogel, Robert Bosch GmbH

10:30 COEXTRUSION PROCESSING OF MULTILAYERED DIELECTRIC POLYMERIC FILMS
2097411 | Deepak Langhe PolymerPlus LLC

M6 Engineering Properties & Structure
Structure Properties

8:30 DEVELOPMENTS IN THE PRODUCTION OF HIGH SURFACE AREA FIBERS AND NONWOVENS FOR FILTRATION
2146458 | Thomas Oommen, Kimberly-Clark Corporation

9:00 MODELLING HAZE AND TRANSMISSION OF TRANSPARENT FILLED SYSTEMS IN DEPENDENCE OF FILLER SURFACE AREA, REFRACTIVE INDEX DIFFERENCE AND WAVELENGTH
2095371 | Wolfgang Wildner, Institute of Polymer Technology

9:30 DEFORMATION MEASUREMENT, MODELING AND MORPHOLOGY STUDY FOR HDPE CAPS AND CLOSURES
2095382 | XiaoChuan Wang, NOVA Chemicals

10:00 A NEW PERSPECTIVE OF SURLYN® MODIFIED POLYAMIDES: EXPANDING THE ROLE OF SURLYN® FROM A MODIFIER TO A BLEND PARTNER FOR POLYAMIDES
2098340 | Richard Chou, Du Pont Co.
MORPHOLOGY CONTROL AND STABILITY IN POLYMER ORGANIC PHOTOVOLTAICS 2139472 | Sarah Morgan, University of Southern Mississippi

M7 Extrusion Mixing/Compounding

8:30 A REVIEW OF SOME IMPORTANT MIXING PROCESSES FOR SINGLE-SCREW EXTRUDERS 2118661 | Gregory Campbell, Castle Research

9:00 THE EFFECTS OF PARTICLE TYPE, SIZE AND COMPOUNDING CONDITIONS ON THE UV DURABILITY OF THERMOPLASTIC ELASTOMERS 2098279 | Mark Wetzel, DuPont

10:00 COMBINATORIAL EFFECTS OF KNEADING ELEMENTS ON MIXING IN TWIN-SCREW COMPOUNDING 2139365 | Graeme Fukuda, University of Maryland

10:30 ABRASIVE WEAR AND SPEED RELATIONSHIP IN TECHNICAL COMPOUNDING 2097690 | Marulanda-Paz, Gonzalo, B&P Process Equipment and Systems

M8 Extrusion General Extrusion I

8:30 HEAT TRANSFER SIMULATION FOR A CONTINUOUS ANNEALING PROCESS OF PLASTIC SHEETS 2093615 | Wenyi Huang, The Dow Chemical Company

9:00 EXTRUSION SCREWS FOR THERMOPLASTIC COMPOSITES 2091126 | Timothy Womer, TWWomer and Associates, LLC

9:30 ADVANCES IN 1D & 2D LAYER MULTIPLICATION COEXTRUSION FOR FILM AND NON-WOVEN FIBER APPLICATIONS 2089045 | Michael Ponting, PolymerPlus LLC

10:00 EFFECT OF RHEOLOGY ON THE MORPHOLOGY OF COEXTRUDED MICROCAPILLARY FILMS 2093628 | Wenyi Huang, The Dow Chemical Company

10:30 PROCESS OPTIMIZATION OF SINGLE-SCREW EXTRUSION SYSTEMS FOR POLYOLEFIN RESINS 2082799 | Mark Spalding, The Dow Chemical Company

M9 Injection Molding Nanotechnology

8:30 ENHANCED GRAPHENE EXFOLIATION AND DISPERSION IN INJECTION MOLDED POLYPROPYLENE NANOCOMPOSITES PROCESSED WITH SUPERCRITICAL FLUID 2139808 | Thomas Ellingham, UW-Madison

9:00 EFFECTS OF SHEAR AND EXTENSIONAL FLOWS ON THE ELECTRICAL PROPERTIES OF POLYCARBONATE/CARBON NANOTUBE COMPOSITES DURING INJECTION MOLDING 2090294 | Sidney Carson, Case Western Reserve University

9:30 INJECTION MOLDING OF NANO-FEATURES – A STUDY ON FILLING AND BIREFRINGENCE 2139413 | Srini Vaddiraju, Corning Incorporated

10:00 APPLICATION OF TAGUCHI METHOD ON WELDLINE STRENGTH OF NYLON6 NANO-COMPOSITES THIN WALL IN MOLD DECORATION MOLDED PARTS 2096729 | Hsin-Shu Peng, Far East University
X-RAY NANOTOMOGRAPHY OF THE SKIN-CORE STRUCTURE OF INJECTION MOLDED COMPOSITES
Sudheer Bandla, Oklahoma State University

M10 Injection Molding
Microcellular Foaming

8:30
TPU FOAM INJECTION MOLDING WITH GAS-ASSISTED PROCESSING
Lun Howe Mark, University of Toronto

9:00
FOAMING BEHAVIOR AND CONTROL OF POLYPROPYLENE/NITROGEN SYSTEM IN MICROCELLULAR FOAM INJECTION MOLDING
Guilong Wang, University of Toronto

9:30
STUDY OF OVERMOLDING A FOAMED THERMOPLASTIC POLYURETHANE LAYER ON A POLYPROPYLENE, POLYCARBONATE, OR POLYOXYMETHYLENE SUBSTRATE
Hrishikesh Kharbas, University of Wisconsin-Madison

10:00
USING IN MOLD PRESSURE SENSORS TO MONITOR THE MICROCELLULAR FOAMING PROCESS
Levi Kishbaugh, Trexel, Inc.

10:30
NUMERICAL AND EXPERIMENTAL STUDIES ON BUBBLE NUCLEATION AND GROWTH DURING MICROCELLULAR INJECTION MOLDING
Sejin Han, Autodesk

M11 Joining of Plastics and Composites
Adhesive Technologies
Moderator: Phil Bates

8:30
CHEMORHEOLOGICAL BEHAVIORS OF A REACTIVE EPOXY-AMINE SYSTEM DURING ISOTHERMAL CURING
Xiaoping Guo, St Jude Medical Inc.

9:00
INNOVATIONS IN HYBRID STRUCTURAL INSTANT ADHESIVE TECHNOLOGIES
Nicole Lavoie, Henkel Corporation

9:30
CORE SURFACE TREATMENTS TO INVESTIGATE ADHESION OF THERMOPLASTIC COATINGS FOR AEROSPACE FASTENERS
Nicole Hoekstra, Western Washington University

10:00
NEW HIGHLY FLEXIBLE CYANOACRYLATES: LOCTITE® 4902™ AND LOCTITE® 4903™
Michael Pomykala, Henkel Corporation

10:30
ADHESIVE TECHNOLOGY FOR BONDING DIS-SIMILAR MATERIALS DURING THE INJECTION MOLDING PROCESS
Paul Wheeler, Lord Corporation

M12 Medical Plastics
Challenges in Manufacture of Medical Devices

8:30
TUNING THE MICRO-ARCHITECTURE OF POLYMER/BIOCERAMIC SCAFFOLDS FOR BONE TISSUE ENGINEERING
Amy Yousefi, Miami University

9:00
THE EFFECT OF HYDROXYAPATITE SURFACE ON OSTEO-DIFFERENTIATION OF HUMAN MESENCHYMAL STEM CELLS USING SERUM FREE MEDIA
Edward Fewkes, Corning Inc.
9:30
STIMULI RESPONSIVE AND BIOMINERALIZED SCAFFOLD: AN IMPLANT FOR BONE-TISSUE ENGINEERING
2137047 | Nabanita Saha, Tomas Bata University

10:00
KEYNOTE | Maureen Reitman

M13 NGAB Panel
360° Leadership for Young Professionals
Hear experiences of how other young professionals moved to higher positions in the plastics field

M14 Polymer Modifiers and Additives
Nucleation and Crystallization Additives
8:30
THE USE OF NUCLEATORS AND CLARIFIERS IN POLYPROPYLENE
2094358 | Philip Jacoby, Jacoby Polymer Consulting

9:00
COMPARATIVE EVALUATION OF COMMERCIALLY AVAILABLE NUCLEATING AGENTS IN POLYAMIDE 66 FORMULATIONS
2095731 | Anshuman Shrivastava, Delphi Packard

9:30
THERMAL AND RHEOLOGICAL ANALYSIS OF NUCLEATED LLDPE RESIN. DETERMINATION OF CRYSTALLIZATION KINETICS PARAMETERS
2094186 | Said Fellahi, SABIC

10:00
EFFECTS OF WOOD AND CELLULOSE FLOURS ON CRYSTALLIZATION BEHAVIORS OF POLY(3-HYDROXYBUTYRATE-CO-3-HYDROXYHEXANOATE)
2097203 | Takashi Kuboki, University of Western Ontario

10:30
NUCLEATIONOF POLYPROPYLENE DURING HIGH SPEED PROCESSING
2094430 | Petar Doshev, Borealis GmbH

M15 Polymer Modifiers and Additives
Impact/Toughness Modification
8:30
USING ZEMAC® COPOLYMERS TO REDUCE COSTS IN NYLON COMPOUNDS WHILE MEETING EXACTING CUSTOMER PERFORMANCE SPECIFICATIONS
2076523 | Ashok Adur, Vertellus Specialties Inc.

9:00
NOVEL IMPACT MODIFIER ALTERNATIVE FOR GLASS FIBER REINFORCED POLYMERS
2093311 | Semra Senturk-Ozer, Polymer Dynamix, LLC

9:30
IMPROVING THE PHYSICAL PROPERTIES AND VERSATILITY OF PLA WITH PHA COPOLYMER BLENDS
2134570 | Michael Andrews, Metabolix

10:00
ON THE USE OF SELF-ASSEMBLING BLOCK COPOLYMERS TO TOUGHEN AN AROMATIC AMINE-CURED EPOXY
2139587 | Ray Pearson, Lehigh University

10:30
TOUGHENING HOLLOW GLASS MICROSPHERE FILLED LOW DENSITY NYLON COMPOUNDS
2139626 | Baris Yalcin, 3M

M16 Rotational Molding
Rotational Molding Session
8:30
HOW EFFICIENT IS DRY-BLENDING AND ROTOMOLDING TO PRODUCE WOOD-PLASTICS COMPOSITES COMPARED TO COMPRESSION MOLDING
2095319 | Denis Rodrigue, Université Laval

9:00
DISCUSSING THE FEASIBILITY OF IMPLEMENTING ROTATIONAL FOAM MOLDING OPERATIONS BASED ON PHYSICAL BLOWING AGENTS
2097676 | Remon Pop-Iliev, University of Ontario Institute of Technology
M17 Students
Students Session

8:30
INFLUENCE OF SOLUTION RHEOLOGY AND FRACTIONATION ON SURFACE PROPERTIES OF POLYSULFONE FILMS
2095997 | Katrina Knauer, The University of Southern Mississippi

9:00
THERMAL CONDUCTIVITY OF CARBON FIBER/CARBON NANOTUBE HYBRID-FILLED POLYMER COMPOSITES
2153675 | Haihong Wu

9:30
THERMAL, RHEOLOGICAL AND FOAMING PROPERTIES OF POLYLACTIDE REINFORCED WITH TALC
2096776 | An Huang, South China University of Technology

10:00
QUALITY IN PACKAGING
2137751 | David Davis, University of Wisconsin-Platteville

10:30
EXPLORING COCONUT SHELL REINFORCED POLYPROPYLENE IN OLEFIN BLENDS
AUTHORS: PATRICK HANEY MATTHEW MCGEE
2180765 | Matthew McGee, Penn State Behrend

M18 Thermoplastic Materials & Foams
Foams Modeling & Processing
Moderator: N.S. Ramesh

8:30
MECHANISMS OF FOAMING-INDUCED THERMAL CONDUCTIVITY ENHANCEMENT IN POLYMER MATRIX COMPOSITE FOAMS
2096364 | Hao Ding, York University

9:00
HIGH ACCURACY METHODS FOR FOAM INJECTION-EXPANSION SIMULATION
2098059 | Laurence Ville, TRANSVALOR

9:30
NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION IN CELL NUCLEATION AND GROWTH WITH CORE-BACK FOAM INJECTION MOLDING
2096395 | Li-Yang Chang, CORETECH System Co., Ltd.

10:00
VISUALIZATION OF CELL-GROWTH INDUCED FIBER ORIENTATION IN POLYMER COMPOSITE FOAMS
2139247 | Amir Ameli, University of Toronto

10:30
MODELLING THE RHEOLOGICAL BEHAVIOR OF BLOWING AGENT LADEN MELTS THAT SIMULATES THE FOAM INJECTION MOLDING PROCESS
2128971 | Daniel Sander, Institute of Plastics Processing

M19 Alloys and Blends
Morphology Development and Characterization of High Performance Polymer Blend Systems

1:30
MICRONIZED POLYPHENYLENE ETHERS IN THERMOPLASTIC POLYURETHANES
2078413 | Edward Peters, SABIC

2:00
COMPATIBILIZING AND TOUGHENING OF AN IMMISCIBLE POLYPHENYLENE BLEND VIA REACTIVE MIXING
2093052 | Sayantan Roy, Baker Hughes Incorporated

2:30
COMPATIBILIZED POLYETHERIMIDE AND POLYARYLENE SULFIDE BLENDS
2086056 | Raghavendra Maddikeri, SABIC

3:00
ENVIRONMENTAL QUALIFICATION OF CABLES TO IEEE STANDARDS AND END-USER SPECIFICATIONS
2137153 | ELLIOT LEE, General Cable Corporation
3:30
DEVELOPMENT OF ELECTRICALLY CONDUCTIVE PVDF/PET SYSTEMS
2094352 | Frej Mighri, Laval University

4:00
THERMODYNAMICS OF TRANSCRYSSTALLIZATION IN FIBRILLAR COMPOSITES OF POLY-PROPYLENE CONTAINING POLYETRAFLUOROETHYLENE FIBRILS
2139251 | Ali Rizvi, University of Toronto

M20 Applied Rheology
Rheometry and Application
Moderator: Donggang Yao

1:30
TBA
Invited | John Dealy

2:30
CAPILLARY RHEOMETRY TRANSIENT DATA ANALYSIS
2098288 | Amir Moshe, University of Massachusetts Lowell

3:00
A METHOD FOR DETERMINING THE SEVEN COEFFICIENTS OF THE CROSS-WLF EQUATION
2098977 | Wei Zheng, University of Wisconsin-Stout

3:30
DETERMINATION OF THE ZERO SHEAR VISCOSITY OF POLYETHYLENE
2096262 | Wen Lin, SABIC

4:00
NUMERICAL SIMULATION OF EXPANDABLE POLYSTYRENE MICROSPHERE EXPANSION
2092864 | Yifeng Hong, Georgia Institute of Technology

4:30
ESTIMATE OF ASTM MELT FLOW RATES FROM OSCILLATORY SHEAR RHEOLOGY
2089400 | Ching-Tai Lue

M21 Color and Appearance
Colorant Topics
Moderator: Tom Rachal

1:30
SPECIFICATIONS AND TEST METHODS(A CAD CONTINUING EDUCATION PRESENTATION)
2097393 | Steve Goldstein, Clariant Corporation

2:00
X-RAY METHODS: EXAMPLES OF CONTRIBUTIONS TO THE HISTORY OF PIGMENTS
2092676 | Austin Reid, DuPont

2:30
PIGMENTS IN THE MODERN AGE
2138599 | Andrew Smith, The Shepherd Color Company

3:00
NOVEL EFFECT PIGMENTS FOR COOL PLASTICS
2095794 | Dietmar Mäder, Eckart GmbH

3:30
A WALK AROUND THE COLOR SPHERE: EFFECT OF TITANIUM DIOXIDE PARTICLE SIZE DISTRIBUTION ON COLOR OF PLASTICS
2093885 | Phil Niedenzu, DuPont

4:00
BLUE UNDERTONE ENHANCEMENT OF BLACK AND GREY PP INJECTION MOLDED PARTS FOR AUTOMOTIVE WITH ULTRAMARINE BLUES
2097848 | Nathan Karszes, Nubiola USA

4:30
COLOR TRANSFER FROM POINT A TO POINT B: A REVIEW AND EXAMINATION OF, CROCKING, RUB-OFF, BLEEDING, BLOOMING, BLUSHING, TRANSFER, MIGRATION, EXTRACTION, SUBLIMATION, EXUDATION, PLATE OUT, DIFFUSION AND ANY OTHER MEANS BY WHICH COLOR ENDS UP WHERE IT DOESN'T BELONG
2133420 | Jim Rediske, BASF Corporation
M22 Composites
Nanocomposites II

1:30
ADVANCES IN SUPERCRITICAL FLUID PROCESSING OF CARBON NANOTUBES FOR APPLICATIONS IN MELT COMPOUNDED POLYMER NANOCOMPOSITES
2095740 | John Quigley, Virginia Tech

2:00
CHARACTERIZATION OF SOLUTION CAST EXFOLIATED GRAPHITE NANOPLATELET / POLYLACTIC ACID NANOCOMPOSITE FILMS
2097551 | Erin Sullivan, Georgia Institute of Technology

2:30
PROCESSING AND CHARACTERIZATION OF EXFOLIATED GRAPHITE NANOPLATELET AND CARBON NANOTUBE / POLYLACTIC ACID NANOCOMPOSITE FILMS
2128635 | Erin Sullivan, Georgia Institute of Technology

3:00
EFFECT OF PROCESS PARAMETERS ON ELECTRICAL CONDUCTIVITY OF INJECTION-MOLDED POLYPROPYLENE/MWCNT FOAMS
2096360 | Amir Ameli, University of Toronto

3:30
NOVEL POROUS NANO-GRAFHEE/ POLYIMIDE COMPOSITE AS ELECTRODE MATERIAL
2137606 | Patricia Okafor, University of Cincinnati

4:00
PHASE MORPHOLOGY AND ELECTRICAL CONDUCTIVITY OF POLYPROPYLENE/POLYLACTIC ACID BLENDS FILLED WITH MULTIWALLED CARBON NANOTUB PHASE
2139469 | Yasamin Kazemi, University of Toronto

4:30
CARBON MONOXIDE REDUCED LOW-DEFECT GRAPHENE NANOCOMPOSITES WITH POLY(-STYRENE-B-BUTADIENE-B-STYRENE)
2096804 | Michael Czajka, RMIT

M23 Composites
Thermoplastic Composites II

1:30
A STUDY OF PEEK/hBN COMPOSITES AS A COMMERCIAL MATERIAL OPTION
2097453 | Anne Musgrave, Penn State Erie - The Behrend College

2:00
EVALUATION OF THE HIGH-POWERED MACHINING PROCESSES OF FIBER-REINFORCED COMPOSITES IN RELATION TO THE METHOD OF CLAMPING AND PROCESS DESIGN
2138902 | Eva Seidel, University of Applied Sciences Schmalkalden

2:30
THERMOPLASTIC COMPOSITE LIGHTWEIGHT COMPONENTS READY FOR MASS PRODUCTION WITH NEW PROCESSES
2138978 | Marcus Schuck, HBW-Gubesch Thermoforming GmbH

3:00
LONG FIBER (GLASS) BREAKAGE IN CAPILLARY AND CONTRACTION FLOW
2095327 | Hongyu Chen, Virginia Tech

3:30
DIRECT FIBER FEEDING INJECTION MOLDING OF GLASS FIBER REINFORCED POLYCARBONATE/ABS POLYMER BLENDS COMPOSITES
2139166 | Ryo Takematsu, Kyoto Institute of Technology

4:00
MECHANICAL AND MORPHOLOGICAL PROPERTIES OF MICROCELLULAR POLYPROPYLENE SINGLE-POLYMER-COMPOSITES PREPARED BY MICROCELLULAR INJECTION MOLDING
2142496 | DONGJIE CHEN, Beijing Institute of Technology

4:30
HIGH STRAIN RATE TESTING OF GLASS FIBER REINFORCED PEEK
2069797 | Stuart Brown, Veryst Engineering
M24 Electrical and Electronic Session

1:30
A STUDY ON THE EFFECT OF TWIN-SCREW MELT BLENDED NANO-FILLERS ON POLY-PROPYLENE NANOCOMPOSITE HYBRID ELECTRICAL AND MORPHOLOGICAL PROPERTIES FOR SUPERCAPACITOR APPLICATIONS
2097479 | Hao Tian Harvey Shi, University of Toronto

2:00
FABRICATION OF FILMS FROM POLY(3-HEXYLTHIOPHENE) COLLOIDAL SUSPENSIONS BY DOCTOR BLADE COATING
2109163 | Bin Tan, University of Massachusetts Lowell

2:30
THE EFFECT OF MATRIX VISCOSITY AND COMPOUNDING PARAMETERS ON THE MORPHOLOGY AND ELECTRICAL CONDUCTIVITY OF PP-CNTS/PS BLENDS
2134004 | KEJING YU, Jiangnan University

3:00
PERCOLATIVE MULTILAYERED DIELECTRICS WITH CONFINED ALIGNMENT OF CONDUCTIVE PARTICLES
2135887 | Jiaming Zhu, Polymer Research Institute of Sichuan University

3:30
STUDY OF THE THERMOELECTRIC PERFORMANCE OF GNP/PVDF AND MWCNT/PVDF COMPOSITES FABRICATED VIA MELT BLENDING METHOD
2137710 | Yu-Chen Sun, University of Toronto

M25 Engineering Properties & Structure Polymer Stability and Failure Analysis

1:30
ASSESSMENT OF PLASTIC COMPONENTS RELIABILITY BASED ON FUNDAMENTAL PROPERTIES OF MATERIAL
2133945 | Thomas Oomman, Kimberly-Clark Corporation

2:00
FRACTURE TOUGHNESS STUDY OF CENTER CRACKED POLYPROPYLENE FILMS WITH TEMPERATURE EFFECT
2090303 | Arzu Hayirlioglu Topuzlu, Avery Dennison Corporation

2:30
FRACTURE BEHAVIOR OF PA6 RUBBER BLENDS INFLUENCED BY WATER ABSORPTION
2136071 | Johannes Heyn, University of Stuttgart

3:00
PREDICTION OF SHORT-TERM BEHAVIOR OF POLYAMIDE 6 BY USING THE STRAIN ENERGY EQUIVALENCE THEORY
2139786 | MOHAMED HADID, Université de Biskra

3:30
PREDICTION OF FAILURE IN FOAMS USING FINITE ELEMENT METHOD
2096220 | Prasad Dasappa, SABIC

4:00
MICRO-SCALE STUDY ON THE FLAMMABILITY OF POLYMERS
2113061 | Hsinjin Yang, Pioneer Scientific Solutions

M26 Engineering Properties and Structure Material Processing, Fabrication, & Properties

1:30
THE FUTURE ROLE OF STRUCTURE-PROPERTY-PROCESS RELATIONSHIPS IN THE PLASTICS INDUSTRY
2090198 | Musa Kamal, McGill University

2:00
TRIPLE SHAPE MEMORY MATERIALS FABRICATED BY FORCED ASSEMBLY MULTILAYER FILM COEXTRUSION TECHNOLOGY
2093372 | Shanzuo Ji, Case Western Reserve University
2:30
FATIGUE PERFORMANCE OF FUSED DEPOSITION MODELING STYLE 3D PRINTED VS. INJECTION MOLDED ULTEM 9085
2097632 | Jane Spikowski, PolyOne Corporation

3:00
MICROSTRUCTURE AND PROPERTIES OF POLYAMIDE 12 PROCESSED BY SELECTIVE LASER SINTERING
2138981 | Binay Patel, Lehigh University

3:30
FEM MODELING OF RATE-DEPENDENT SCRATCH BEHAVIOR OF POLYMERS
2136534 | Mohammad Hossain, Texas A&M University

4:00
TRANSVERSAL MOLECULAR ORIENTATION OF ISOTACTIC POLYPROPYLENE AT CONVENTIONAL PROCESSING
2082033 | Masayuki Yamaguchi, Japan Advanced Institute of Science and Technology

4:30
FRACTOGRAPHIC EXAMINATION AND TENSILE PROPERTY EVALUATION OF 3D PRINTED ACRYLONITRILE BUTADIENE STYRENE (ABS)
2137235 | Paul Ledwith, Exponent, Inc.

M27 Extrusion
Twin-Screw Extrusion

1:30
DISPERSION EFFECT OF EXTENSIONAL FLOW FOR PP/CNT NANO-COMPOSITE WITH BLISTER DISK OF TWIN SCREW EXTRUDER
2081980 | Koki Matsumoto, Doshisha University

2:00
DEVELOPMENT OF A NEW TYPE OF MELT PUMP
2136364 | Johann Ertl, Henschel ExtruTec

M28 Extrusion
General Extrusion II

1:30
CHARACTERIZING AN EXTRUSION PROCESS USING DESIGN OF EXPERIMENT (DOE)
2087485 | Kirk Cantor, Pennsylvania College of Technology

2:00
IMPROVEMENTS IN PROCESSING SEMI-CRYSTALLINE POLYMERS FOR THERMOFORMING SHEET IN MULTIPLE NIP SYSTEMS
2090713 | Peter Rieg, battenfeld-cincinnati Germany
2:30
PARAMETERIZATION AND VALIDATION OF DISCRETE ELEMENT SIMULATIONS REGARDING THE PRESSURE PROPAGATION IN PLASTIC PELLETS BULK
2081362 | Johann Lessmann, University of Paderborn

3:00
EFFECTS OF BARREL AND SCREW HEATING IN RUBBER EXTRUSION
2079061 | Sebastian Brockhaus, University of Paderborn

3:30
EXTRUSION PERFORMANCE FLUIDS - CRUCIAL IN MAINTAINING WATER-COoled EXTRUDER EFFICIENCIES
2158006 | Peter Greenlimb, CHEMAGINEERING CORPORATION

4:00
EFFECT OF DEGREE OF CROSSLINKING ON ULTRASONIC DECROSSLINKING OF PEROXIDE CROSSLINKED HIGH DENSITY POLYETHYLENE
2124756 | Keyuan Huang, University of Akron

4:30
INTEGRATED WASTE HEAT UTILIZATION FOR EXTRUDER BARRELS BY INTERCONNECTION OF FLUID STREAMS
2139020 | Christoph Ketteler, University of Duisburg-Essen

M29 Fellows Fundamentals Forum
Fellows Fundamentals Forum

1:30
AUTOMOTIVE DESIGN AVOIDING PLASTIC DESIGN PITFALLS
Paul Tres, ETS. Inc.

2:00
PAINTING PLASTICS: THE ROLE OF INTERFACIAL FACTORS ON COMPOSITE PERFORMANCE
Rose Ryntz, IAC

2:30
FLOW ACCELERATES INTERFACIAL REACTION IN COEXTRUSION AND COMPATIBILIZATION OF POLYMER BLENDS
Chris Macosko, University of Minnesota

3:00
PROGRESS IN SIMULATING SEMI-FLEXIBLE GLASS FIBER ORIENTATION DURING INJECTION MOLDING
Donald Baird, Virginia Tech

3:30
CHALLENGES IN THE MODELING OF PLASTICS IN COMPUTER SIMULATION
Hubert Lobo, Datapoint Labs

4:00
CHALLENGES AND OPPORTUNITIES IN FUNCTIONAL NANOMATERIALS DESIGN
Sadhan Jana, University of Akron

4:30
ROBUST PLASTIC PARTS AND ASSEMBLIES DESIGN USING A HOLISTIC APPROACH
Vikram Bhargava

5:00
PAST, PRESENT AND FUTURE: INNOVATIONS THAT CONNECT MOLD BUILDERS, MOLDERS AND OEms
Glenn Starkey, Progressive Components

5:30
SOME PERSPECTIVES ON INNOVATION
Raj Krishnaswamy, Braskem America

M30 Injection Molding Simulation

1:30
FIBER ORIENTATION IN INJECTION MOLDED LONG CARBON FIBER THERMOPLASTIC COMPOSITES
2139172 | Jin Wang, Autodesk

2:00
FLOW ANALYSIS OF INJECTION MOLDING WITH INSERTS OR CORES SUPPORTED BY RETRACTABLE PINS
2096842 | Alexander Bakharev, Autodesk
2:30
ADVANCED VISUALIZATION OF WELD LINES, PATHLINES AND SINK MARKS FOR INJECTION MOLDING
2096597 | David Astbury, Autodesk

3:00
NUMERICAL INVESTIGATION AND EXPERIMENTAL VALIDATION FOR WAX PATTERN FORMATION THROUGH INJECTION INVESTMENT CASTING
2096225 | Wen-Yen Chang, National Tsing-Hua University

3:30
SIMULATION AND VALIDATION OF MOLD FILLING WITH VELOCITY CONTROLLED VALVE GATES
2095376 | Zhongshuang Yuan, Autodesk, Inc.

4:00
A FRAMEWORK FOR VISCOITY MODEL RESEARCH IN INJECTION MOLDING SIMULATION, INCLUDING PRESSURE AND FIBER ORIENTATION DEPENDENCE
2083671 | Franco Costa, Autodesk, Inc.

4:30
SCREW GEOMETRY DESIGN AND PERFORMANCE EFFECTS ON FIBER BREAKAGE STUDY
2096263 | Chao-Tsai (CT) Huang, CoreTech System (Moldex3D) Co. Ltd

M31 Joining of Plastics and Composites
Hybrid Structures
Moderator: Sergio Amancio

1:30
ULTRASONIC UPSETTING – A NEW METHOD OF ULTRASONIC RIVETING TO JOIN HYBRID MATERIAL COMBINATION
2097071 | Eric Brückner, Chemnitz University of Technology

2:00
EXPERIMENTS WITH HOT TOOL JOINING OF THERMOPLASTICS TO PERFORATED MILD STEEL
2097235 | Olivia Prior, The Ohio State University

2:30
COMBINED TIME-POSITION CONTROLLED FRICITION RIVETING OF GLASS FIBER REINFORCED POLYAMIDE 6 AND ALUMINUM ALLOY 6056 HYBRID JOINTS
2097284 | Lucian Blaga, Helmholtz-Zentrum Geesthacht

3:00
LINEAR VIBRATION WELDING UNDER INDUSTRIAL CONDITIONS
2097383 | Sven Friedrich, Chemnitz University of Technology

M32 Marketing and Management
Technical Entrepreneurship: How Do You Research, finance, and Market Your Business Ideas?

M33 New Technology Forum
Innovating Within a Global Compliance Environment

1:30-4:00
UNDERWRITERS LABORATORIES: OVER A CENTURY OF INNOVATION SAFETY
Scott MacLeod, Underwriters Laboratories

HOW REACH AFFECTS PRODUCT INNOVATION
Karl Heinz Spriestersbach, PINFA

AN INTRODUCTION TO GLOBAL COMPLIANCE: WHAT YOU NEED TO KNOW ABOUT NOTIFICATIONS AND EXEMPTIONS
Brian Zoretich, PolyOne

THE HISTORICAL FAA DEVELOPMENT OF IMPROVED FLAMMABILITY TEST METHODS FOR AIRCRAFT INTERIOR MATERIALS
Richard Lyon, FAA

REGULATORY RESEARCH FOR PROMOTING INNOVATION IN BIOSENSING DEVICE TECHNOLOGIES
Irada Isayeva, FDA

4:00-5:00
Panel Discussion – All Speakers
M34 Plastic Pipes and Fittings
Investigations of Materials and Test Methods for Plastic Pipe Systems

1:30
ALTERNATIVE PLASTIC MATERIALS AND THEIR POTENTIAL USE FOR PLASTIC APPLICATIONS
KEYNOTE | Raj Krishnaswamy, Braskem

2:30
QUALIFICATION TESTING AND LONG-TERM DURABILITY OF PLASTIC-LINED METALLIC PIPE, FITTINGS AND FLANGES FOR CORROSIVE APPLICATION
2063676 | Bryan Hauger, Bryan Hauger Consulting, Inc.

3:00
INVESTIGATION OF GROOVED FEED SCREW DESIGNS FOR POLYETHYLENE PIPE EXTRUSION
2093070 | Vivek Rohatgi, Chevron Phillips Chemical Company

3:30
DEVELOPMENT OF RING TENSILE CREEP TEST METHOD FOR COMPOSITE PIPES
2096715 | Tomohiro Tanishita, Kyoto Institute of Technology

4:00
A FRACTURE MECHANICS APPROACH TO SERVICE LIFE PREDICTION OF HDPE FUSION JOINTS IN NUCLEAR APPLICATIONS
2139319 | Prabhat Krishnaswamy, Emc2

4:30
TESTING FUSED PVC WATER PIPE WITH THE ISO 13477 S4 METHOD FOR CRITICAL PRESSURE
2084475 | Tom Marti, UGSI

5:00
CHEVRON PHILLIPS CHEMICAL COMPANY BEST PAPER AWARD

M35 Polymer Analysis
Innovative Methods, Morphology and Optical Analysis

1:30
CHARACTERIZATION OF POLYMERS PENETRATED IN WOOD
KEYNOTE | Steve King

2:00
CLIENT FOCUSED POLYMER ANALYSIS
KEYNOTE | Mike Sepe

2:30
DEVELOPMENT OF SEALANTS FOR FLEXIBLE PACKAGING USING LIGHT MICROSCOPY
2096145 | Eddy Garcia-Meitin, The Dow Chemical Company

3:00
THE TESTING PROGRAM AT NIST ON FIBERS USED IN SOFT BODY ARMOR APPLICATIONS
2097361 | Walter McDonough, U.S. Department of Commerce - NIST

3:30
EFFECT OF BRIGHTNESS, COLOR AND TRANSPARENCY ON SCRATCH AND MAR VISIBILITY IN POLYMERS
2132561 | MAROUEN HAMDI, Texas A&M University

4:00
SURFACE QUALITY OF PARTS MANUFACTURED USING SELECTIVE LASER SINTERING
2139275 | Sean Petzold, University of Wisconsin-Madison

4:30
A NEW METHOD FOR THE CALCULATION OF THE SPHERULITE GROWTH IN SOLIDIFYING SEMI-CRYSTALLINE POLYMER MELTS
2091010 | Marcel Spekowius, Institute of Plastics Processing

5:00
SYNTHESIS AND CRYSTAL TRANSITION OF HBA/HNA COPOLYMER
2096989 | Rui Jiang, East China University of Science And Technology
M36 Thermoplastic Materials and Foams
Nanofoams and NanoFilled Foams
Moderator: Changchun Zeng

1:30
CONTINUOUS EXTRUSION OF NANOCELLULAR FOAM
2094414 | Stephane Costeux, The Dow Chemical Company

2:00
EVALUATION OF NITROGEN AS A CO-BLOWING AGENT IN NANOCELLULAR FOAM
2116832 | Stephane Costeux, The Dow Chemical Company

2:30
FROM NANO-STRUCTURED IPP FORMATION TO NANO-CELLULAR IPP FOAM
2139268 | Mehdi Saniei, University of Toronto

3:00
CONTROLLED FOAMING OF POLYSTYRENE/MWCNT BY CARBON DIOXIDE
2139262 | Sai Wang, University of Toronto

3:00
SOLID-STATE THERMOPLASTIC NANOFOAMS VIA A NOVEL LOW-TEMPERATURE SATURATION PATHWAY
2134882 | Huimin Guo, University of Washington

3:30
PREPARATION OF MICRO AND NANOCELLULAR TPU-GRAPHENE NANOCOMPOSITE FOAM BY SUPERCRITICAL CO2 FOAMING
2131344 | Shu-Kai Yeh, National Taiwan University of Science and Technology

4:00
THE EFFECT OF MICROSTRUCTURE ON THE MECHANICAL PROPERTIES OF THERMOPLASTIC POLYURETHANE/CLAY NANOCOMPOSITE FOAMS
2096012 | Xinchao Wang, University of Wisconsin-Madison

TUESDAY MORNING SESSIONS

T1 Applied Rheology
Constitutive Model
Moderators: Tieqi Li, Manojkumar Chellamuthu

8:30
VISCOELASTIC MODELS WITH ROTATIONAL RECOVERY
2095931 | Donggang Yao, Georgia Institute of Technology

9:00
ON THE ENTANGLEMENT DENSITY AND CHAIN STIFFNESS OF COPOLYCARBONATES CONTAINING RIGID AND FLEXIBLE LINKAGES
2097563 | Manojkumar Chellamuthu, SABIC

10:00
DEVELOPMENT OF A RELAXATION MODEL FOR ANNEALING OF PLASTIC FILMS AND SHEETS
2091161 | Wenyi Huang, The Dow Chemical Company

T2 Bioplastics
Bioplastics Session

8:30
BIODEGRADABLE LATEX PAPER COATINGS BASED ON POLYHYDROXYALKANOATES FOR IMPROVED MOISTURE RESISTANCE
2095000 | Christopher Thellen, NSRDC

9:00
CELLULOSE ACETATE AS A TUNABLE BIO-BASED ENGINEERED MATERIAL
2095590 | Christopher McGrady, Celanese

9:30
THERMAL ANALYSIS OF POLYLACTIC ACID AND CORN ZEIN COMPOSITES
2097468 | Sarah Cheney, US Army NSRDEC
10:00
DURABILITY STUDIES OF BIODEGRADABLE POLYMERS UNDER ACCELERATED WEATHERING CONDITIONS
2097769 | Rajendran Muthuraj, University of Guelph

10:30
BIOADHESIVE FROM LIGNIN AND DRIED DISTILLERS’ GRAINS WITH SOLUBLES (DDGS)
2098011 | Wang Tao, University of Guelph

11:00
MICROWAVE SYNTHESIS OF POLY(GLYCEROL SEBACATE)
2098085 | Gildas Caotivy, University of Guelph

11:30
BIODEGRADABLE STARCH BASED FILM USING LIGNOCELLULOSE AS A REINFORCING MATERIAL
2132864 | Tanima Chowdhury, SIES School of Packaging

T3 Composites
Thermoset Composites

8:30
OVERCOMING THE BARRIERS TO WIDE-SPREAD ADOPTION OF ADVANCED COMPOSITES
KEYNOTE | Dale Brosius

9:00
EFFECT OF GLASS FIBER ON MECHANICAL PROPERTIES OF POLY(3-HYDROXYBUTYRATE-CO-3-HYDROXYHEXANOATE)
2097529 | Takashi Kuboki, University of Western Ontario

9:30
DEVELOPMENT OF AN AUTOMATED ADDITIVE PREFORMING TECHNOLOGY FOR RTM-PARTS
2115205 | Linus Fecher, Institute of Plastics Processing

10:00
AUTOMOBILE SENSORS AND FUNCTIONAL LIGHTWEIGHT DESIGN – CONTRADICTIO IN ADJECTO?
2080463 | Linda Klein Robert Bosch GmbH

T4 Composites
Thermoplastic Composites III

8:30
PROCESSING OF CONDUCTIVE POLYMER COMPOSITE SHIELDING MATERIALS
2095832 | Mark Barger, Dow Chemical Company

9:00
BENEFITS OF SURFACE TREATMENTS & MIXED FILLER FORMULATIONS FOR THERMALLY CONDUCTIVE PLASTICS
2139018 | Chandra Raman, Momentive Performance Materials

9:30
COMPLIANT HIGH FRICTION SURFACES ON ICE MADE USING POLYMER-FIBER COMPOSITES
2098191 | Reza Rizvi, University Health Network

10:00
MODIFICATION OF INTERFACIAL BONDING OF HYBRID GLASS/CARBON FIBER POLYPROPYLENE COMPOSITE FABRICATED BY DIRECT FIBER FEEDING INJECTION MOLDING
2088778 | Putinun Uawongsuwan, Kyoto Institute of Technology

10:30
EVALUATION OF LONG-TERM PERFORMANCE OF GFRTP FOR HOT WATER SUPPLY
2096698 | Atsushi Takeda

T5 Engineering Properties and Structure
Structure Properties 2

8:30
VIBRATIONAL SPECTROSCOPIC STUDIES OF POLYMER MICROSTRUCTURES
2084052 | Thomas Oomman, Kimberly-Clark Corporation
9:30
MODIFIED SOYBEAN OIL PLASTICIZER IN CARBON BLACK FILLED SBR
2136509 | Jiaxi Li, The University of Akron

10:00
A NEW PERSPECTIVE OF SURLYN® MODIFIED POLYAMIDES: EXPANDING THE ROLE OF SURLYN® FROM A MODIFIER TO A BLEND PARTNER FOR POLYAMIDES
2098340 | Richard Chou, DuPont Co.

10:30
ENHANCED THERMAL CONDUCTIVITY OF POLYBUTYLENE TEREPHTHALATE COMPOSITES USING 2D AND 3D HYBRID FILLERS
2139669 | Yanting Guo, York University

T6 Extrusion
Single-Screw Tutorials Honoring Frank Nissel
8:30-11:00 am

T7 Extrusion
Dies/Films
8:30
A PRACTICAL EXAMPLE OF FILM EXTRUSION PROCESS TROUBLESHOOTING AND FINE TUNING
2151887 | Olivier Catherine, Cloeren Inc.

9:00
CONTINUOUS EXTRUSION OF LLDPE FILMS MODIFIED WITH HEXAGONAL BORON NITRIDE NANOPLATELETS
2095243 | Ozgun Ozdemi, Clemson University

9:30
A NUMERICAL VERIFICATION AND EXPERIMENTAL VALIDATION OF THE MULTI-JET COOLING SYSTEM FOR THE BLOWN FILM APPLICATION
2118346 | Benedikt Neubert, University of Duisburg-Essen

10:00
OPTIMIZATION OF A PROFILE COEXTRUSION DIE USING A THREE-DIMENSIONAL FLOW SIMULATION SOFTWARE
2094397 | Mahesh Gupta, Michigan Tech University

10:30
UNDERSTANDING SPIRAL MANDREL DIES: LAYERING EFFECT AND GAUGE UNIFORMITY
2097255 | Hassan Eslami, Macro Engineering and Technology

T8 Injection Molding
Materials
Moderator: Pete Grelle
8:30
TUNING 3D TOPOGRAPHY ON BIOMIMETIC SURFACES BY MICROINJECTION COMPRESSION MOLDING
2096623 | Han-Xiong Huang, South China University of Technology

9:00
DIRECT ADHESION OF PLASTIC AND STAINLESS STEEL USING CONDUCTIVE HEATING IN THE INJECTION MOLDING PROCESS
2091183 | Julian Schild, Institute of Plastics Processing

9:30
MECHANICAL RESPONSE OF AGEING AND ANNEALING ON INJECTION MOLDED HIGH DENSITY POLYETHYLENE
2139635 | Reaj Ahmed, Niagara Bottling, LLC

10:00
POLYPROPYLENE IMPACT COPOLYMERS FOR IMPROVED TIGER-MARKING RESISTANCE IN LARGE PART INJECTION MOLDING
2095715 | Joel Carr, Braskem America

10:30
NEW MATERIALS FOR FLUID INJECTION TECHNIQUE – IMPROVED PROPERTIES WITH REACTIVE POLYURETHANES
2091251 | Christian Holz, Institute of Plastics Processing (IKV) in Industry and the Skilled Crafts at RWTH Aachen University

11:00
EFFECT OF SCREW GEOMETRY ON LONG GLASS FIBER BREAKAGE DURING INJECTION MOLDING
2135462 | Ruggero Giusti, University of Padua
T9 Injection Molding and Mold Making & Mold Design - Joint Session

8:30  
DESIGN FOR MOLDABILITY AND PROFITABILITY  
KEYNOTE | John Bozzelli, Injection Molding Solutions

9:30  
GRAIN DEVELOPMENT & GRAIN REPAIR ON A 7,XXX-SERIES ALUMINUM  
2135707 | David Okonski, Generals Motors Research & Development Center

10:00  
PROTOTYPE PLASTIC INJECTION MOLDS PRODUCED VIA OBJECT 3D PRINTING  
2083689 | Barbara Arnold-Feret

10:30  
THERMAL ANALYSIS OF CONVENTIONAL AND RAPID TOOLING FOR INJECTION MOLDING  
2087629 | Gabriel Mendible, University of Massachusetts, Lowell

11:00  
INDUCTION HEATING SIMULATION FOR THE PLASTIC INJECTION MOLDING PROCESS  
2096562 | Clinton Kietzmann, Autodesk Australia Pty Ltd

11:30  
INNOVATIVE SUPPLY CHAIN MANAGEMENT: HOW BIG DATA ADVANCE MOLDERS’ USE OF RESOURCES AND PROMOTES COMPETITIVENESS  
2095921 | Sujit Sheth, AST Technology

12:00  
STUDY ON THE HEAT TRANSFER BEHAVIOR AND WARPAGE RESULT IN SMALL QUANTITY OF DIVERSE MOLED PART DESIGNS WITH VARYING THERMAL PROPERTY MOLD INSERT CONTROL  
2096050 | Kuan-Hua Lee, Chung Yuan Christian University

T10 Joining of Plastics and Composites Polymer Welding  
Moderator: David Grewell

8:30  
EFFICIENT ASSEMBLY AND JOINING: REVERSIBLE BONDED JOINTS USING NANO-FERROMAGNETIC PARTICLES, TECHNICAL AND BUSINESS CASE STUDY  
INVITED | M. Day

9:00  
EFFECT OF POLYPROPYLENE CONTAMINATION ON WELD STRENGTH OF RECYCLED POLYAMIDE 6  
2087928 | Hesam Ghasemi, Royal Military College of Canada

9:30  
A CASE FOR ROUND ENERGY DIRECTOR*: UTILIZING ADVANCED CONTROL CAPABILITIES OF SERVO-DRIVEN ULTRASONIC WELDERS IN EVALUATING ROUND ENERGY DIRECTOR PERFORMANCE  
2124209 | Alex Savitsky, Dukane Corporation

10:00  
SPLIT PEEL SEAL SYSTEM FOR FLEXIBLE MEDICAL DEVICE PACKAGING  
2129137 | Patrick Thomas, PRThomas Technologies. LLC

T11 Medical Plastics Advanced Biomaterials

8:30  
MEDICAL MOLDING TODAY, TOMORROW AND BEYOND  
KEYNOTE | Mark Bonifacio

9:30  
NEW FIELDS OF APPLICATIONS FOR THE DESIGN OF EXPERIMENTS (DOE) IN THE DEVELOPMENT PROCESS FOR MEDICAL PRODUCTS  
2088714 | Andrea Mueller, University of Applied Sciences Schmalkalden
10:00  
EFFECTS OF GAMMA STERILIZATION ON POLYETHYLENE  
2090110 | Robert Klein, Stress Engineering Services

10:30  
NEW PEEL SEAL SYSTEM FOR FLEXIBLE MEDICAL DEVICE PACKAGING APPLICATIONS  
2114900 | Patrick Thomas, PRThomas Technologies. LLC

11:00  
CONTROLLING THE ARCHITECTURE OF TISSUE ENGINEERING SCAFFOLDS IN EXTRUSION-BASED ADDITIVE MANUFACTURING: THE EFFECT OF EXTRUDATE SWELL  
2094544 | Amy Yousefi, Miami University

T12 Plastics in Building and Construction  
Plastics in Building and Construction Session

8:30  
THE SCIENCE, ECONOMICS, INNOVATION & CHALLENGES FOR THE USE OF FOAMS IN CONSTRUCTION, TODAY & TOMORROW  
KEYNOTE | Alan Letton, Rubberlite

9:30  
HEALTH PRODUCT DECLARATIONS-THE GOOD, THE BAD AND THE UGLY  
KEYNOTE | Marty Sweeney, Celanese

10:30  
THE IMPACT OF ENGINEERING PLASTICS ON THE ADVANCEMENT OF SOLAR ENERGY IN THE UNITED STATES  
2093429 | Matthew Parkinson, BASF

11:00  
PVC PROPERTY MODIFICATION USING STYRENEICS BASED MODIFIER SYSTEMS  
2097127 | Mohammed Abboud, Styrolution America LLC

11:30  
LOWER-COST, LIGHTER AND GREENER POLYPROPYLENE-BASED BIOCOMPOSITES FOR INDUSTRIAL APPLICATIONS  
2103366 | MIHAELA MIHAI, National Research Council of Canada

T13 Polymer Analysis  
Rheology and Kinetic

9:00  
THE QUEST FOR PERFECT POLYOLEFIN MOLECULAR STRUCTURE DETERMINATION  
KEYNOTE | William deGroot

9:30  
EVALUATING THE EFFICIENCY OF NUCLEATION AGENTS IN POLYPROPYLENE BY MEANS OF ISOTHERMAL CRYSTALLIZATION AND KINETIC MODELLING  
2094793 | Andreas Spoerrer, NETZSCH Geraetebau GmbH

10:00  
ANALYSIS OF THE RHEOLOGICAL BEHAVIOR OF EPDM RUBBER WITH BLOWING AGENT  
2078502 | Nora Restrepo Zapata, Universidad Nacional de Colombia - Sede Medellin

T14 Thermoforming  
Thermoforming Session

8:30  
ON THE POTENTIAL OF STEREO DIGITAL IMAGE CORRELATION IN THERMOFORMING  
2092557 | Bart Van Mieghem, KU Leuven, Technology Campus Diepenbeek
MODEL-BASED TEMPERATURE MEASUREMENT FOR THERMOFORMING APPLICATIONS
Benjamin Neubig, University of Stuttgart

EFFECT OF RETORT ON THE PEEL STRENGTH OF RIGID PLASTIC CONTAINERS
Rabeh Elelithy, Printpack

VALIDATION OF A NEW MATERIAL MODEL FOR THERMOFORMING AND BLOW MOLDING SIMULATION
Hossam Metwally, Ansys Inc.

THERMOTROPIC LIQUID CRYSTALLINE POWDER
Kamlesh Nair, Celanese

GEL SPINNING OF UHMWPE FIBERS WITH LOW MOLECULAR WEIGHT POLYBUTENE AS A NEW SPIN SOLVENT
XUDONG FANG, Georgia Institute of Technology

LOW-PERMEATION TOUGHENED POLY-OXYMETHYLENE (POM) FOR INJECTION-MOLDED AND BLOW-MOLDED TANKS IN SMALL OFF-ROAD ENGINE (SORE) APPLICATIONS
Sunghye Kim, Celanese

AGING OF PHYSICAL PROPERTIES IN IONOMERS MODIFIED WITH FATTY ACID SALTS
John Bishop, DuPont

CRYSTALLIZATION AND FOAMING BEHAVIOR OF POLYPROPYLENE WITH A CRYSTAL-NUCLEATING AGENT
Raymond Chu, University of Toronto

INFLUENCE OF CELLULOSIC FILLER CONTENT AND MORPHOLOGY ON THE DRYING AND PROCESSING OF POLYLACTIDE ACID (PLA) COMPOSITES
Tobias Koplin, Hochschule Hannover-University of Applied Sciences and Arts Hanover

BIO BASED ACTIVE BARRIER MATERIALS AND PACKAGE DEVELOPMENT
Michael Miranda, University of Toledo

PRODUCING CROSS-LINKED POLYCARBONATE – CHALLENGES AND BENEFITS
Amanda Flores, SABIC

THE EFFECTS OF HIGH SOLVATING PLASTICIZERS ON THE VISCOSITY STABILITY OF POLYVINYL CHLORIDE PLASTISOLS
Gina Macy, University of Oregon

FUNCTIONALIZATION OF SOY FATTY ACID ALKYL ESTERS AS BIOPLASTICIZERS
Dharma Kodali, University of Minnesota
TUESDAY AFTERNOON SESSIONS

T17 Alloys and Blends
Design, Performance and Characterization of Engineering Polymer Blends
1:30
QUALIFYING A RECYCLED MATERIAL WITH STRINGENT ENGINEERING PROPERTIES REQUIREMENTS USING SIX SIGMA
2096029 | Vikram Bhargava

2:00
NEW TRANSPARENT/TRANSLUCENT IMPACT MODIFIED POLYCARBONATE/POLYESTERS BLENDS
2094805 | Huanbing Wang

2:30
TRANSPARENT, CHEMICALLY RESISTANT PC/POLYESTER BLENDS WITH IMPROVED FLAME RETARDANCY
2095343 | Sarah Grieshaber, SABIC

3:00
BINARY AND TERNARY PET BLENDS
2091798 | Tariq Syed, SABIC

3:30
NEW HIGH IMPACT CHEMICAL RESISTANT COLORABLE POLYETHERIMIDE-POLYCARBONATE BLENDS
2117822 | Hao Zhou, SABIC

4:00
GLASS FILLED PBT BLENDS WITH HIGH BONDING STRENGTH FOR NANO MOLDING TECHNOLOGY
2126109 | Yuanqing He, SABIC

T18 Applied Rheology
Rheology of Composites
Moderator: Himanshu Asthana
1:30
NON-LINEAR RHEOLOGY IN SHEAR AND EXTENSIONAL FLOWS OF MALEATED PP-CLAY NANO COMPOSITES
2081662 | Krishnamurthy Jayaraman, Michigan State University

2:00
LINEAR AND NONLINEAR RHEOLOGY OF POLY(BUTYLENE SUCCINATE)/FUMED SILICA NANOCOMPOSITES
2090189 | Xun Chen, University of Massachusetts, Lowell

2:30
RHEOLOGICAL CHARACTERIZATION OF HIGHLY FILLED COMPOSITE SYSTEMS FOR INJECTION MOLDING APPLICATIONS
2093517 | Kurt Koppi, Dow Chemical

3:00
MELT RHEOLOGY OF IN-SITU POLYMERIZED POLYAMIDE 6/CELLULOSE WHISKER NANO-COMPOSITES
2098283 | Shahab Kashani Rahimi, University of Southern Mississippi

3:30
STRESS RELAXATION STUDY OF THE DEVELOPMENT OF MICROSTRUCTURES IN BLENDS OF ISOTACTIC POLYPROPYLENE, SORBITOL NUCLEATING AGENT AND SILSESQUIOXANE
2096594 | Jairo Perilla, National University of Colombia

T19 Bioplastics
Bioplastics Session
1:30
SOY- AND BIOCHAR-BASED FERTILIZER
2137259 | Jake Behrens, Iowa State University

2:00
CORN PROTEIN COMPOSITES FOR AGRICULTURAL PRODUCTS
2137636 | Jake Behrens, Iowa State University

2:30
DEVELOPMENT OF GREEN POLYMER BLENDS MADE FROM CARBON DIOXIDE BASED POLYOL AND POLY (LACTIC ACID)
2136736 | Sun Qirui, University of Guelph
3:00  MAKING TAILOR-MADE HIGH PERFORMANCE THERMOPLASTIC POLYOLEFIN (TPO)/ POLYLACTIDE (PLA) BLENDS FOR AUTOMOTIVE INTERIOR APPLICATIONS BY IRRADIATION  2125623 | Carolin Vogt, Benecke-Kaliko AG

3:30  DEVELOPMENT OF EGGSHELL POWDER MASTERBATCH FOR FOOD TRAYS  2138767 | Yoshihisa Sumita, Hinode resin industry co.,ltd.

T20 Composites
Nanocomposites II

1:30  PET/ORGANOCLAY NANOCOMPOSITES SYNTHESIZED BY SOLVENT BLENDING WITH SONICATION  2077469 | Karnik Tarverdi, Brunel University London

2:00  IMPROVEMENT OF MECHANICAL BEHAVIOR OF POLYPROPYLENE NANOCOMPOSITES VARYING NANOCLAYS AND COMPATIBILIZERS  2096776 | Markus Battisti, Montanuniversitaet Leoben

2:30  EFFECT OF ADDED PLASTICIZER ON MOISTURE DIFFUSION THROUGH POLYLACTIC ACID/CLAY NANOCOMPOSITES  2097410 | Man Chio Tang, West Virginia University

3:00  IMPROVING THE DISPERSION OF IONIC LIQUID-MODIFIED MONTMORILLONITE IN POLY(ETHYLENE TEREPHTHALATE)  2091648 | Craig Clemons, USDA Forest Products Laboratory

4:00  COMPARISON OF COMPOUNDING APPROACHES FOR WOOD-DERIVED CELLULOSE NANOCRYSTALS AND POLYAMIDE 6  2091723 | Kazem Majzadeh, University of Toledo

4:30  CRYSTAL MORPHOLOGY OF BIODEGRADABLE POLY(LACTIC ACID)/GRAPHENE OXIDE NANOCOMPOSITES AND THE ISOTHERMAL CRYSTALLIZATION KINETICS RESEARCH  2094835 | Lihong Geng, South China University of Technology

T21 Composites
Natural/ Bio Composites

1:30  CHARACTERIZATION OF CARBONIZED ELECTROSPUN LIGNIN FIBERS  2097980 | Vida Poursorkhabi, University of Guelph

2:00  EFFECTS OF ACCELERATED AGING ON THE FLAMMABILITY OF POLYPROPYLENE BASED BIOCOMPOSITES  2098080 | Manjusri Misra, University of Guelph

2:30  STUDY THE EFFECT OF HBN FIBRE CONTENT AND ASPECT RATIO ON PLA BASED COMPOSITE THERMAL CONDUCTIVITY  2097423 | Shahriar Ghaffari Mosanenzadeh, University of Toronto

3:00  INFLUENCES OF WOOD PARTICLE SHAPE AND SURFACE MODIFICATION OF WOOD ON WOOD/PP COMPOSITES  2096544 | HU Xu, Kyoto Institute of Technology
T22 Decorating and Assembly
Advanced Processes and Materials for Decoration and Assembly of Plastics

1:30
BENEFITS AND LIMITATIONS OF ULTRASONIC FILM SEALING
2091987 | Bill Aurand, MS Plastic Welders, LLC

2:00
A CASE FOR ROUND ENERGY DIRECTOR*: UTILIZING ADVANCED CONTROL CAPABILITIES OF SERVO-DRIVEN ULTRASONIC WELDERS IN EVALUATING ROUND ENERGY DIRECTOR PERFORMANCE
2093438 | Kenneth Holt, Dukane Corporation

2:30
MEETING GLOBAL CHALLENGES WITH MICRO SOLUTIONS: THE ROLE OF PLASMA SURFACE TREATMENT IN THE FUTURE OF PLASTICS
2096323 | Paul Mills, Plasmatreat North America

3:00
INNOVATIONS IN HYBRID STRUCTURAL INSTANT ADHESIVE TECHNOLOGIES
2096011 | Nicole Lavoie, Henkel Corporation

3:30
NEW HIGHLY FLEXIBLE CYANOACRYLATES: LOCTITE® 4902™ AND LOCTITE® 4903™
2098224 | Michael Pomykala, Henkel

4:00
CONTENT BRIDGE VALUE CREATION - HOW IN-MOLD LABELING AND SMART PHONE CONNECTIVITY CAN ADD VALUE TO PLASTIC PRODUCTS
2150933 | Robert Travis, InkWorks Printing LLC

4:30
WHEN PERMANENT REALLY MEANS PERMANENT. IMIG, THE NEW HEAT FUSED GRAPHIC FOR POLYETHYLENE, POLYPROPYLENE AND OTHER OLEFIN RESINS
2098527 | Jason Brownell, iMIG Systems

5:00
LEXTRA IN - MOLD FILMS
2091743 | Michael Ruminski, Engineering

T23 Engineering Properties and Structure
Polymer Morphology Characterization and Testing

1:30
USING MULTIPLE MORPHOLOGICAL METHODS TO UNDERSTAND THE PROCESSING/STRUCTURE/PROPERTY/BEHAVIOR OF OLEFINIC MICROPOROUS BATTERY SEPARATOR MEMBRANES
2095085 | Garth Wilkes, Virginia Tech

2:00
IN-SITU SAXS STUDY OF PHASE SEGREGATION AND MORPHOLOGY OF STYRENE BLOCK COPOLYMERS
2091946 | Thomas Oomman, Kimberly-Clark Corporation

2:30
CREEP BEHAVIOR OF POLYMER BLENDS AND LONG TERM PREDICTION
2093102 | Ying Shi, A.Schulman, Inc.

3:00
HIGH TEMPERATURE AIR CHANNEL TESTING OF THERMALLY BONDED PVC GEOMEMBRANE SEAMS
2139690 | Timothy Stark, University of Illinois at Urbana-Champaign

3:30
A NEW EVALUATION METHOD OF O-RING RUBBER SEALS BY COMPRESSIVE LOAD TEST
2135344 | Yuya Yokohama, Kyoto Institute of Technology

4:00
ISOTHERMAL CRYSTALLIZATION OF ISOTACTIC POLYPROPYLENES: EXPERIMENTS AND SIMULATION
2097463 | Lin Jiang, University of Wisconsin-Madison

T24 Extrusion
Twin Screw Tutorial
1:30-5:00

T25 Failure Analysis and Prevention & Injection Molding - Joint Session
Moderator: Paul Gramman
A STUDY OF TWO PROCESSING INDUCED PART FAILURES  
2143131 | Jose Perez, Element New Berlin

VERIFICATION OF A STRUCTURAL ANALYSIS OF FIBER REINFORCED THERMOPLASTICS WITH WELD LINE  
2095454 | Sebastian Kammer, Darmstadt University of Applied Science

USE OF COMMON SIX SIGMA TOOLS FOR SYSTEMATIC ANALYSIS AND SOLUTIONS TO PLASTIC PART FAILURE

PANEL DISCUSSION WITH 4 INVITED EXPERTS

T26 Flexible Packaging  
Barrier, Sealing and Package/ Food Interactions  
Moderator: Tom Dunn

PEELABLE SEAL FILMS WITH ENHANCED MOISTURE BARRIER PROPERTIES FOR FLEXIBLE PACKAGING APPLICATIONS  
2112106 | Dan Falla, Nova Chemical

PLASTIC PACKAGING MODELING: INTERACTIONS WITH FOOD. MODEL AND METHOD TO ESTIMATE THE SHELF LIFE OF OXYGEN-SENSITIVE FOOD PRODUCTS  
2095266 | Iván López, ICIPC

LLDPE-EVOH HIGH BARRIER BLEND FILMS FABRICATED BY MULTIPLICATION EXTRUSION  
2091394 | GUOJUN ZHANG, A.Schulman, Inc.

INFLUENCE OF A SUBSTRATE BIAS ON THE ADHESION OF SILICON ORGANIC PECVD FILMS ON POLYPROPYLENE  
2096772 | Henrik Behm, Institute of Plastics Processing

CATALYTIC TECHNOLOGY AND CONTROLLED CHEMICAL RELEASE FOR POST-HARVEST PRESERVATION OF FRUITS AND VEGETABLES  
2155440 | Vinod Malshe, Lifeline Technologies

STUDY OF SEALED PARTS OF FLUORINE FILM BY LASER ADVANCED WELDING OF PLASTICS METHOD  
2089696 | Kazushi Yamada, Kyoto Institute of Technology

PACKAGING AND FOOD INTERACTIONS MODELING: VALIDATION FOR COMPLIANCE WITH SPECIFIC MIGRATION REGULATIONS  
2095475 | Juan Estefan, ICIPC

INVESTIGATION OF APPLYING GAS COUNTER PRESSURE (GCP) TECHNOLOGY IN IMPROVING METAL INJECTION MOLDING FLOW CHARACTERISTICS AND MOLDED PART’S QUALITY  
2096053 | Kuan-Hua Lee, Chung Yuan Christian university

REBUILDING SCREWS FOR INJECTION MOLDING PROCESSES  
2075148 | Mark Spalding, The Dow Chemical Company

EXPERIMENTAL RESULTS OF MELT MODULATION PACKING PARAMETERS CONTROL ON COLD-RUNNER INJECTION MOLDING FINAL PRODUCT QUALITY  
2139568 | Majed Alsarheed, Lehigh University

INFLUENCES OF MELT ROTATION TECHNOLOGY ON POLYMERIC MATERIAL INJECTION MOLDING PROCESS AND FINAL PRODUCTS PROPERTIES  
2139164 | Qi Li, Lehigh University
3:30 EFFECT OF MINIATURISATION AND PROCESS INDUCED CRYSTALLISATION ON MECHANICAL PROPERTIES OF MICROINJECTION MOULDINGS
2097082 | Nan Zhang, University College Dublin

4:00 POST SHRINKAGE EFFECT ON THICK OPTICAL LENS DEVELOPMENT
2096293 | Heng-Tseng Liao, CoreTech System Co., Ltd.

T28 Marketing and Management
Dedicated to the Memory of Roger F. Jones

1:00 ROGER F. JONES, IN MEMORIAM
Margaret Baumann

1:15 COMMERCIALIZATION OF NEW TECHNOLOGY- LONG GLASS COMPOSITES
Steve Bowen, Plasticomp

2:00 COMMERCIALIZING A BIO BASED FOAMED PACKING PRODUCT
Tim McInerny, Sealed Ait

2:30 PERSPECTIVES FROM THE SUSTAINABILITY SURVEY
Maggie Baumann/Bonnie Bachman, G.H. Associates/MST

3:00 COMMERCIALIZATION AND PITFALLS ON THE ROAD TO PROFITABILITY
Robert Eller, Robert Eller Associates

3:30 CHALLENGES FACING NON-HALOGEN WIRE AND CABLE DEVELOPMENT
Srinivas Siripurapu, General Cable

4:00 EQUIPMENT INNOVATION SUPPORTING SUSTAINABILITY
Michael Lazorchak, B&P Equipment

4:30 SUSTAINABLE PLANT OPERATIONS AT TECHMER
Kimberly Williamson, Techmer PM

5:00 PANEL DISCUSSION AND WRAP UP

T29 New Technology Forum
3-D Printing with a Focus on Material Development
1:30-4:30

OPEN DOORS WITH 3D PRINTING
Peter Weijmarshausen, Shapeways

BRING GREAT THINGS TO LIFE WITH AM!
Bryan Crutchfield, Materialise

ARBURG PLASTIC FREEFORMING (AKF)- NEW INDUSTRIAL ADDITIVE PROCESS
Dr. O. Kessling, ARBURG

BREAKING BARRIERS IN ADDITIVE MANUFACTURING
Lonnie Love, Oak Ridge

HIGH HEAT AND HIGH IMPACT POLY(LACTIC ACID) COMPOUNDS FOR ADDITIVE MFG./3D PRINTING
Edwin Tam, Teknor Apex

4:30-5:00 PANEL DISCUSSION – ALL SPEAKERS

T30 Polymer Analysis
Thermal
1:30 VISUALISATION OF DEGRADED PARTS BY APPLYING FT-IR IMAGING AND EDS ANALYSIS
2094854 | Kazushi Yamada, Kyoto Institute of Technology

2:00 EVALUATION OF SHELF LIFE OF RESIN
2065896 | Shantanu Shivdekar, Boston Scientific
2:30
THERMAL HISTORY EFFECT OF PTFE
2081366 | Scott Eastman, United Technologies Research Center

3:00
AGING BEHAVIOR OF POLYAMIDE 12 DURING SELECTIVE LASER MELTING PROCESS – INFLUENCE ON MECHANICAL PROPERTIES
2089786 | Katrin Wudy, Institute of Polymer Technology

3:30
CONTROLLED DRUG DELIVERY OF A HYDROPHILIC DRUG MODEL FROM A FIBROUS ELASTOMERIC COMPOSITE WITH SHAPE MEMORY PROPERTIES
2117530 | Melodie Lawton, Syracuse University

4:00
ANISOTROPIC THERMAL CONDUCTION IN POLYMERIC MATERIALS
2139507 | David Venerus, Illinois Institute of Technology

4:30
A NEW DSC THERMOPILE SENSOR FOR COMBINED HEAT FLUX AND POWER COMPENSATED MEASUREMENTS
2081498 | Claus Linseis, Linseis, Inc.

T31 Polymer Modifiers and Additives
Functional Fillers for Plastics

1:30
EXCITING FUNCTIONAL FILLERS
KEYNOTE | Chris Mcdermid

2:00
FUNCTIONAL FILLERS AND ADDITIVES FOR PLASTICS
2139895 | Steve Amos

2:30
EFFECTS OF COMPOUNDING SET-UP ON ELECTRICAL CONDUCTIVITY PROPERTIES OF CARBON BLACK FILLED COMPOUNDS
2091163 | Daniele Bonacchi, IMERYS Graphite and Carbon

3:00
REDUCED ADHESION STRIPPABLE INSULATION SHIELDS USING NANO-SCALE MINERAL FILLERS FOR TRXLPE INSULATED MEDIUM VOLTAGE POWER CABLES
2087837 | Sean Culligan, General Cable Corporation

3:30
A STUDY OF GLASS SPHERES INCORPORATED INTO EXTRUDED POLYETHYLENE FILMS
2206379 | Nichola Iorio

T32 Thermoplastic Elastomers
Thermoplastic Elastomers Session

1:30
NEW HYDROGENATED STYRENE BLOCK COPOLYMERS FOR COMPOUNDING SOLUTIONS
2085602 | Yonghua Zhou, Kraton Polymers LLC

2:00
POLYSTYRENE-b-POLY (ETHYLENE-co-BUTYLENE)-b-POLYSTYRENE/ZINC OXIDE BLOCK COPOLYMER NANOCOMPOSITES: RHEOLOGICAL AND DIELECTRIC PROPERTIES
2108076 | Emna Helal, Ecole de Technologie Supérieure

2:30
A NEW STYRENIC BLOCK COPOLYMER DESIGNED FOR POLYOLEFIN-LIKE PROCESSING FOR COMPOUNDING, FILMS AND FIBERS
2097668 | Mark Berard, TSRC Dexco

3:00
HIGHLY FILLED THERMOPLASTIC ELASTOMER COMPOUNDS MADE WITH OLEFIN BLOCK COPOLYMERS
2088110 | Jeff Munro, The Dow Chemical Company

3:30
RUBBER DE-VULCANISATION USING A PLANETARY EXTRUDER
2098101 | Michael Batton, Entex GmbH

4:00
CHEMICAL RESISTANT TPE MATERIAL WITH ADHESION TO ENGINEERING PLASTICS
2116254 | Florian Vetter, Kraiburg TPE GmbH & Co. KG
INJECTION OVERMOLDING PERFORMANCE OF THERMOPLASTIC POLYESTER ELASTOMERS (TPC-ET)
2093303 | Mukul Kaushik, Celanese

5:00
RHEO-KINETIC STUDY OF A MODEL TPU SYSTEM FOR REACTIVE EXTRUSION
2137062 | Jesse Gadley, Case Western Reserve University

5:30
RHEOLOGICAL BEHAVIOR AND STRUCTURAL DEVELOPMENT OF THERMOPLASTIC POLYURETHANE ANNEALED AT HIGH TEMPERATURE
2139602 | Jesse Gadley, Case Western Reserve University

T33 Thermoplastic Material and Foams
Foam Session 1
Moderator: Raymond Shute

1:30
LAYER INTEGRITY IN POLYETHYLENE BASED MULTILAYER FILM/FOAMS AND THEIR PROPERTIES
2093258 | Md Arifur Rahman, Case Western Reserve University

2:00
IN-SITU MEASUREMENT OF INTERNAL MOLD PRESSURE ON CHEMICAL FOAMING PROCESS
2096466 | Junichiro Tateishi, ASICS Corporation

2:30
CORRELATION BETWEEN FOAM EXTRUSION PROCESS PARAMETERS, MECHANICAL PROPERTIES AND PHARMACEUTICAL DOWNSTREAM PROCESSING
2097052 | Graciela Terife, Merck & Co., Inc.

3:00
MECHANISM OF BUBBLE NUCLEATION AND GROWTH IN HIGH-PRESSURE FOAM INJECTION MOLDING USING GAS-COUNTER PRESSURE
2110433 | Vahid Shaayegan, University of Toronto

3:30
PIEZOELECTRIC FOAMS BASED ON CYCLIC OLEFIN COPOLYMER
2127469 | Changchun Zeng, Florida State University

4:00
THE INFLUENCE OF RHEOLOGICAL PROPERTIES OF THE MATERIAL FORMULATION ON THE CELL SIZE AND CELL DENSITY OF PHYSICALLY FOAMED POLYETHYLENE
2096555 | Matthias Walluch, Polymer Competence Center Leoben

4:30
EFFECT OF FLUORINATED HYPERBRANCHED POLYMER ON THE MORPHOLOGY OF PS AND PMMA FOAMS
2098588 | Masataka Sugimoto, Yamagata University

WEDNESDAY MORNING SESSIONS

W1 Alloys and Blends
Design, Performance and Characterization of Sustainable Polymer Blends

8:30
EXPLORATION OF SURFACE INTERACTIONS OF POLYMER BLENDED BIOCONJUGATES
2093204 | Vicki Flaris, Bronx Community College

9:00
STUDIES ON THE BLENDING OF ABS/PLA FOR CREATION OF A NEW GREEN ENGINEERING POLYMER
2097296 | Ryan Vadori, University of Guelph

9:30
CHARACTERIZATION OF TERNARY BLENDS OF POLY(LACTIC ACID), POLY(BUTYLENE ADIPATE-COTEREPHTHALATE) AND POLYPROPYLENE
2098078 | Manjusri Misra, University of Guelph

10:00
FLOW BEHAVIOR OF THERMOPLASTIC STARCH-BLENDS
2094726 | Matthias Musialek, Institut für Kunststofftechnik
10:30
ENHANCED FOAMING ABILITY THROUGH MICROSTRUCTURE CONTROL OF POLYMER BLENDS
2139232 | Ali Rizvi, University of Toronto

W2 Applied Rheology
Melt Fracture and LCB
Moderator: Tieqi Li

8:30
RHEOLOGICAL CHARACTERIZATION ON THERMAL STABILITY AND FLOW INSTABILITY OF ETHYLENE-TETRAFLUOROETHYLENE COPOLYMER
2090872 | Seigo Kotera, Asahi Glass Co.ltd.

9:00
STUDY ON WORM MELT FRACTURE OF BLOW MOLDING PROCESS USING CAPILLARY RHEOMETER
2128897 | Yongwoo Inn, Chevron Phillips Chemical

9:30
LONG CHAIN BRANCHING OF POLYPROPYLENE VIA UV RADIATION: EFFECT OF COAGENT AND OTHER RADIATION VARIABLES ON CONTINUOUS MODIFICATION
2180120 | Yasaman Amintowlieh, University of Waterloo

10:00
PRODUCING LONG CHAIN BRANCHED POLYMERS FROM LINEAR POLYOLEFINS
2095251 | Edward Phillips, Edward M. Phillips

W3 Bioplastics
Bioplastics Session

8:30
THERMAL ANALYSIS OF SOY FLOUR ELASTOMER COMPOSITES
2139486 | Kendra Allen, Iowa State University

9:00
EFFECT OF CATALYST ON COMPATIBILIZATION OF POLY(LACTIC ACID) / POLYAMIDE BLENDS
2139498 | JeongIn Gug, University of Massachusetts, Lowell

9:30
CHEMISTRY AND CHEMICAL ENGINEERING PROCESS FOR MAKING BIO BASED PET
2139574 | Damian Salazar Hernandez, University of Toledo

10:00
ISOTHERMAL CRYSTALLIZATION BEHAVIOR OF POLY(LACTIC ACID)/CELLULOSE NANOFIBER COMPOSITES WITH PRESENCE OF CO2
2139329 | WeiDan Ding, University of Toronto

10:30
EVALUATION OF MECHANICAL PROPERTIES OF CELLULOSE COMPOSITES
2138259 | Nishimura Hiroyuki

11:00
EVALUATION OF THE ROLE OF D-LIMONENE OBTAINED FROM WASTE MATERIAL ON STARCH BASED EDIBLE FILMS
2132888 | Tanima Chowdhury, SIES School of Packaging

W4 Composites and Engineering Properties & Structure
Nanostructures, Properties, & Applications
Moderator: Nikhil Verghese

8:30
HOW IS ELECTRICAL PERCOLATION ACHIEVED IN NANO DOPED MATERIALS? DIRECTION TOWARDS MORE EFFICIENT DOPING
2094178 | Gilles Lubineau, KAUST

9:30
EFFECT OF ULTRASONIC TREATMENT ON ELECTRICAL AND RHEOLOGICAL PERCOLATION THRESHOLD OF POLYCARBONATE-CARBON NANOTUBES COMPOSITES
2096152 | Xiang Gao, The University of Akron

10:00
PREPARATION AND TUBE SHORTENING EFFECTS OF MULTI-WALLED CARBON NANOTUBES ON ELECTRICAL AND MECHANICAL PROPERTIES OF POLYCARBONATE/MWCNT COMPOSITES
2083164 | John Zapata, University of Oklahoma
10:30
IMPACTS OF DIFFERENT MECHANISMS ON CARBON NANOTUBES/ POLYMER NANO-COMPOSITES’ PIEZORESISTIVITY
2086485 | Weiqing Fang, Lassonde School of Engineering, York University

**W5 Composites**
**Composites Analysis I**
**Moderator: Ryan Amundson**

8:30
PROGRESS IN ASSESSING FIBER ORIENTATION AND FLEXIBILITY WITH INCREASED FIBER LENGTHS
2081390 | Mark Cieslinski, Virginia Polytechnic Institute and State University

9:00
FIBER ORIENTATION PREDICTION OF LONG FIBER-REINFORCED THERMOPLASTICS: OPTIMIZATION OF MODEL PARAMETERS
2114449 | Jens van Haag, Institute of Plastics Processing (IKV) at RWTH Aachen University

9:30
FIBER ORIENTATION MEASUREMENTS USING A NOVEL IMAGE PROCESSING ALGORITHM FOR MICRO-COMPUTED TOMOGRAPHY SCANS
2093954 | Sebastian Goris, University of Wisconsin-Madison

10:00
NONLINEAR STRUCTURAL ANALYSIS OF SHORT FIBER FILLED INJECTION MOLDED PARTS
2082896 | Don Robbins, Autodesk, Inc.

10:30
ULTRASONIC INSPECTION OF ARTIFICIALLY-DEFECTED GFRP
2106891 | Kohta Tsubaki, Kyoto Institute of Technology

W6 Failure Analysis and Prevention & Plastic Pipes and Fittings - Joint Session

8:30
FAILURE ANALYSIS OF CROSS-LINKED POLYETHYLENE PIPE IN RESIDENTIAL PLUMBING AND HEATING SYSTEMS
2098087 | Phillip Sharff, Simpson Gumpertz & Heger Inc.

9:00
THE EFFECT OF LOCALIZED HEATING ON POLYETHYLENE TUBING
2139583 | Robert Farina, Exponent, Inc.

9:30
EVALUATION OF PLASTIC PIPES FOR HOT WATER SUPPLY AND HEATING
2088668 | Hiroyuki Nishimura, Kyoto Institute of Technology

10:00
DEGRADATION ANALYSIS FOR POLYETHYLENE OF RAISED TEMPERATURE RESISTANCE AFTER LONG-TERM HOT WATER IMMERSSION AND HOT AIR EXPOSURE TESTS
2136134 | HIDEKAZU HONMA, KRI, Inc.

W7 Flexible Packaging
Film Properties, New Materials and New Technologies
**Moderator: Dan Falla**

9:00
IMPACT PUNCTURE RESISTANCE OF MULTILAYER FLEXIBLE FOOD PACKAGES
2097982 | Barry Morris, DuPont

9:30
HIGH PERFORMANCE PP/PE MULTILAYER FILMS ENABLED BY PP BASED OBC
2095915 | Yushan Hu, The Dow Chemical Company

10:00
CORRELATING THE MELTING OF SEMI-CRYSTALLINE POLYMERS TO THE SHRINK WRAPPING PROCESS IN SHRINK-FILM PACKAGING APPLICATIONS
2136611 | Bernard Obi, The Dow Chemical Company
10:30
UNDERSTANDING BLOWN POLYETHYLENE FILM DART STRENGTH VARIABILITY
2093332 | Paul OConnell, Dow Chemical

11:00
PREDICTING PHYSICAL AND OPTICAL PROPERTIES OF CO-EXTRUDED BLOWN FILMS USING DESIGN OF EXPERIMENT BASED MODEL
2092906 | Nitin Borse, Nova Chemical

11:30
LASER IMAGEABLE POLYMERIC FILM
2139387 | Patrick Thomas, PRThomas Technologies, LLC

W8 Injection Molding
Tutorial Session I

8:30
THE PLASTICATING UNIT FOR INJECTION MOLDING; A NEED FOR A WORLD STANDARD SCREW AND METHOD FOR EVALUATION
Michael Durina

9:00
EXPERIMENTAL ANALYSIS OF FIBERS ORIENTATION AND MECHANICAL PROPERTIES IN INJECTION MOLDING OF THERMOPLASTIC REINFORCED MATERIALS BY RHCM
2139571 | Luca Crema, University of Padua

9:30
THE REAL-TIME DETERMINATION ALGORITHM OF MOLD TEMPERATURE STABILIZATION
2094938 | Byungohk Rhee, Ajou University

10:00
WARPAGE CONTROL OF THIN-WALLED PARTS USING LOCAL MOLD TEMPERATURE SETTING IN INJECTION MOLDING
2065558 | Ming-Shyan Huang, National Kaohsiung First University of Science and Technology

10:30
EFFECTS OF GAS COUNTER PRESSURE AND DYNAMIC MOLD TEMPERATURE CONTROL ON THE MECHANICAL/FOAMING/SURFACE ROUGHNESS PROPERTIES OF MICROCELLULAR INJECTION MOLDED PP PARTS
2084316 | Shyh-shin Hwang, Chien-hsin University of Science and Technology

W9 Injection Molding
Processing II

8:30
TIGHT TOLERANCE PREDICTION OF PART DIMENSIONS
2096819 | David Kazmer, University of Massachusetts, Lowell

W10 Medical Plastics
Advanced Resins for Medical Devices

8:30
DEGRADATION OF MICROCELLULAR PLGA-PEG COPOLYMER FOR USE IN A DRUG DELIVERY SYSTEM FOR THE URINARY BLADDER
2091483 | Daniel Kaltbeitzel, Institute for Plastics Processing (IKV) at RWTH Aachen University

9:00
MECHANICAL BEHAVIOR AND STRUCTURE VARIATION OF PCL/HA COMPOSITE UNDER DIFFERENT STRAIN AND STRAIN RATES
2115093 | Haibin Zhao, Shandong University
9:30
STERILIZATION EFFECTS ON HARD-SOFT COMBINED POLYMERS FOR MEDICAL APPLICATION
2093455 | Vera Seitz, Institute of Medical and Polymer Engineering

10:00
TUNING THERMAL PROPERTY OF A THERMOPLASTIC POLYCARBONATE-BASED POLYURETHANE BY MEANS OF POST-EXTRUSION, SOLID STATE ANNEALING
2132242 | Xiaoping Guo, St Jude Medical Inc.

10:30
COMPREHENSIVE STERILIZATION STUDY OF MULTIPLE POLYSTYRENE GRADES AND OTHER POLYMERS
2133345 | Laren Shoup, Americas Stryenics

11:00
FIBRINOGEN PROTEIN BINDING EVALUATION OF EASTMAN TRITAN™ COPOLYESTERS AND OTHER POLYMERS FOR MEDICAL APPLICATIONS
2139231 | Yubiao Liu, Eastman Chemical Company

11:30
STRESS-RELAXATION OF POLYCARBONATE RESINS
2098134 | Pierre Moulinie, Bayer MaterialScience, LLC

W11 Mold Making and Mold Design
Mold Making and Mold Design Session

8:00
3D VOLUME SHRINKAGE COMPENSATION METHOD IN INJECTION MOLD DESIGN OPTIMIZATION
2096337 | Chen-Han Tseng, CoreTech System (Moldex3D) Co., Ltd.

8:30
TREATMENT OF MOLD COMPONENTS: A GUIDE TO PROVEN ADVANTAGES
2137734 | Ken Rumore, Progressive Components

9:00
MOLD DESIGN FOR REDUCTION OF OFFLINE ASSEMBLY & SECONDARY OPERATIONS
2115451 | Tim Peterson, Industrial Molds Group

9:30
FUNDAMENTALS OF OPTIMIZED MOLD COOLING SYSTEM DESIGN FOR INJECTION MOLDS
2097930 | Brenda Clark, HASCO America, Inc.

10:00
USE OF PRE-HARDENED TOOL STEEL GIVES FASTER MOLD MANUFACTURING
2125675 | Per Hansson, SSAB

10:30
MOLD UNDERCUT SOLUTIONS - DATA DRIVEN ADVANTAGES
2137734 | Kevin Kelly, Progressive Components

11:00
3D VOLUME SHRINKAGE COMPENSATION METHOD IN INJECTION MOLD DESIGN OPTIMIZATION
2096337 | Chen-Han Tseng, CoreTech System (Moldex3D) Co., Ltd.

11:30
PROCESS PLANNING OF MOLD COMPONENTS WITH FEATURE RECOGNITION AND GROUP TECHNOLOGY
2087435 | Yu-Wei Chen, Chung Yuan Christian University

W12 NGAB Plastics University
NGAB Plastics University

8:30
A FORMULATOR’S PERSPECTIVE ON MEETING NEEDS IN THE PLASTICS MARKETPLACE
INVITED | Roger Avakian, PolyOne Corporation

9:00
COMPOUNDING POLYMERS ON A TWIN SCREW EXTRUDER
INVITED | Alex Utracki, Coperion Corporation
9:30
DESIGNING WITH PLASTICS
INVITED | Eric Larson, Art of Mass Production

10:00
OPTIMIZING SHEET EXTRUSION CONDITIONS
INVITED | Tim Womer, TWWomer & Associates

10:30
INJECTION MOLDING: CONSIDERATIONS FOR SMALL AND LARGE-SCALE PROCESSING
INVITED | Sidney Carson, PolyOne Corporation

11:00
TBD (TOPIC: 3D PRINTING)
INVITED | Kevin Carr, MasterGraphics

11:30
FAILURE PREVENTION IN PLASTIC PARTS AND ASSEMBLIES USING A HOLISTIC APPROACH
INVITED | Vikram Bhargava

12:00
NETWORKING SESSION

W13 New Technology Forum
Advances in Batteries and Super-Capacitors

9:00-11:30
LBNL, PLASTIC AND COMPOSITE MATERIALS FOR RECHARGEABLE LITHIUM-ION BATTERIES
Gao Liu

ALL-POLYMER FLEXIBLE ENERGY STORAGE DEVICES
Jian (Javen) Lin, University of Missouri-Columbia

EXPLORING THE UNIQUE CHALLENGES FOR PLASTICS IN LITHIUM-ION BATTERY PACKS
Kevin White, Exponent

NEW AND INNOVATIVE SOLUTIONS ENABLES BY BLUE SPARK TECHNOLOGIES (THIN ZN BATTERIES)
Jon Eager, Blue Spark Technologies

SOLID STATE BATTERY FORMULATIONS: OPPORTUNITY FOR POLYMER COMPOSITES
Dee Strand, Wildcat Discovery Technologies

11:30-12:00
PANEL DISCUSSION – ALL SPEAKERS

W14 Polymer Modifiers and Additives/ Vinyl
Applied Functional Polymers & Application

8:30
DEVELOPMENT OF CROSSLINKED POLYETHYLENE BY USING A NEW SILANE COCKTAIL
2090459 | Samim Alam, Momentive Performance Materials Inc.

9:00
PERFORMANCE OF A NOVEL OXIDATIVELY STABLE SLIP AGENT IN POLYOLEFINS
2066422 | Adam Maltby, Croda

9:30
VINYL RECYCLING
Richard Krock, Vinyl Institute

10:00
A COMPARISON OF PVC/PLASTICIZER INTERACTION PARAMETER AND PLASTISOL PROCESSING CHARACTERISTICS WITH HIGH SOLVATING PLASTICIZERS AND PLASICIZER BLENDS
2123804 | Mikaela Hall, University of Oregon

10:30
TORQUE RHEOMETER TO PREDICT THE PROCESSABILITY OF RIGID PVC POWDER COMPONDS IN TWIN SCREW EXTRUDERS
Randy Brown, Kydex, LLC

11:00
HIGH TEMPERATURE AIR CHANNEL TESTING OF THERMALLY BONDED PVC GEOMEMBRANE SEAMS
2139690 | Timothy Stark, University of Illinois at Urbana-Champaign

11:30
THIRTY-YEAR DURABILITY OF A 20-MIL PVC GEOMEMBRANE
2139704 | Timothy Stark, University of Illinois at Urbana-Champaign
W15 Process Monitoring and Controls
Process Monitoring and Controls Session

8:30
COMBINED X-RAY AND OPTICAL PELLET INSPECTION FOR SMALLEST IMPURITY DETECTION DURING PLASTIC PELLET PRODUCTION AND PROCESSING
2097156 | Katja Giersch, SIKORA AG

9:00
INLINE DETECTION OF MATERIAL STORAGE EFFECTS ON PROCESSING BEHAVIOR OF RUBBER COMPOUNDS
2099167 | Michael Fasching, Polymer Competence Center Leoben

9:30
A FAST AND EFFECTIVE 2D REGULATORY CONTROL FOR INJECTION MOLDING PROCESS
2139017 | Yang Bo, Zhejiang University

10:00
PARTICLE MOTION MAY CHARGE YOU UP AND SHUT YOU DOWN
2139467 | Eric Ziskend, LexMar Global Inc.

W16 Product Design and Development
Product Design and Development Session I
Moderator: Al McGovern

8:30
PART DESIGNERS’ BEST ALLY – AN AUTOMATED DESIGN CHECKER
2095528 | Vikram Bhargava

9:00
3D THICKNESS MAPPING BY MICRO-COMPUTED TOMOGRAPHY AIDING DESIGN
2095901 | Masoud Allahkarami, Oklahoma State University

9:30
PLASTICS MOLDING STRATEGIES FOR UNCERTAIN PRODUCTION VOLUMES
2096790 | David Kazmer, University of Massachusetts Lowell

10:00
THERMALLY CONDUCTIVE POLYCARBONATE FOR ELECTRONICS
2139668 | Nicolas Sunderland, Bayer MaterialScience

10:30
CONVERSION OF LIGNIN: SUSTAINABLE AND COST-EFFECTIVE CARBON FIBERS USABLE WITHIN THE AUTOMOTIVE INDUSTRY
2092534 | Hendrik Mainka, MaiComposite Solutions

11:00
IN-DEPTH STUDY FOR THE DIFFERENT PHYSICAL MECHANISM BETWEEN OVER-MOLDING AND CO-INJECTION MOLDING
2094614 | Che-Ping Lin, CoreTech System Co., Ltd.

11:30
OPTIMIZATION OF POLYAMIDE BLENDS FOR AUTOMOTIVE INTERIOR APPLICATIONS UTILIZING MIXTURE-PROCESS VARIABLE EXPERIMENTAL DESIGNS
2139653 | Jayson Humble, A. Schulman Inc.

W17 Thermoplastic Materials and Foams
Acoustical Foams and Foam Visualization Experiments Session
Moderator: Perry Vadhar

8:00
MICROSTRUCTURAL DESIGN OF POROUS MEMBRANE FOR EFFECTIVE SOUND ABSORPTION PERFORMANCE
2098142 | Shahrazad Ghaffari Mosanenzadeh, University of Toronto

8:30
VISUALIZING 3D POLYMER FOAM STRUCTURE CHARACTERISTICS WITH OPTICAL TOMOGRAPHY
2091162 | Christoph Muelder, Institute of Plastics Processing
9:00
STRUCTURE AND ACOUSTICAL PROPERTY OF POLYOLEFIN FILM/FOAM ALTERNATING MULTILAYER COMPOSITES
2077337 | Wenbin Liang, National Institute of Clean-and-Low-Carbon Energy

9:30
FABRICATION OF INTERCONNECTED POROUS PLA BY MIXING WITH NAACL AND PEO IN TWO-ROTOR CONTINUOUS MIXER
2139291 | Xin Chen, East China University of Science and Technology

10:00
PREPARATION OF MICRO AND NANOCHELULAR TPU-GRAAPHEE NANOCOMPOSITE FOAM BY SUPERCritical CO2 FOAMING
2131344 | Shu-Kai Yeh, National Taiwan University of Science and Technology

10:30
SOLID-STATE THERMOPLASTIC NANOFOAMS VIA A NOVEL LOW-TEMPERATURE SATURATION PATHWAY
2134882 | Huimin Guo, University of Washington

11:00
STRUCTURE AND ACOUSTICAL PROPERTY OF POLYOLEFIN FILM/FOAM ALTERNATING MULTILAYER COMPOSITES
2077337 | Wenbin Liang, National Institute of Clean-and-Low-Carbon Energy

WEDNESDAY AFTERNOON SESSIONS

W18 Automotive Automotive Session
1:30
SELECTED FAILURE MODES IN AUTOMOTIVE PLASTIC PARTS
2135762 | Matthew Carroll, General Motors

2:00
AN EFFECTIVE MATERIAL CONCEPT FOR A NEW GENERATION OF BATTERY SUPPORTS WITHIN PREMIUM CLASS CARS
2092601 | Werner Posch, Dräxlmaier Group

2:30
EFFECT OF THIN WALLING AND FOAMING ON TPO PART PERFORMANCE
2139428 | Jason Fincher, Advanced Composites

3:00
LOW GLOSS PC/ASA BLENDS FOR AUTOMOTIVE INTERIOR APPLICATIONS
2091850 | Bin Sun, SABIC

3:30
BIOCOMPOSITES AND BIOBLENDs BASED ON ENGINEERING THERMOPLASTICS FOR AUTOMOTIVE APPLICATIONS
2103033 | MIHAELA MIHAI, National Research Council of Canada

4:00
INTEGRATIVE SOLUTIONS FOR ACCURATE SIMULATION OF CHOPPED FIBER REINFORCED PLASTIC COMPONENTS
2097372 | Jennifer Leclerc

W19 Blow Molding Blow Molding Session
1:30
BENEFITS OF CONFORMAL COOLING IN IMPROVING BLOW MOLDED CONTAINER PERFORMANCE
2075961 | Sumit Mukherjee, Plastic Technologies, Inc.

2:00
FOAMCORE BLOW MOLDED STRUCTURAL COMPONENTS FOR TRANSPORTATION APPLICATIONS
2143645 | Steven Sopher, JSP

2:30
LIGHT WEIGHTING IN BLOW MOLDING USING NEW MUCCELL TECHNOLOGY
2135257 | Simon Dominey, Mucell Extrusion

3:00
OPTIMIZE THE MECHANICAL PROPERTIES OF BLOW MOLDED THERMOTROPIC LIQUID CRYSTALLINE POLYMERS FOR HYDROGEN STORAGE APPLICATIONS
2097075 | Chen Qian, Virginia Polytechnic Institute and State University
3:30 EXTRUDATE SWELL OF HDPE MELS WITH APPLICATION TO MANUFACTURING OF THE NEW GENERATION FUEL SYSTEM (NGFS) 2102126 | Ehsan Behzadfar, The University of British Columbia

4:00 EXTRUDATE SWELL OF HIGH-DENSITY POLYETHYLENE USING INTEGRAL AND DIFFERENTIAL CONSTITUTIVE EQUATIONS 2102351 | Vinod Kumar Konaganti, The University of British Columbia

W20 Composites
Composites Analysis II

1:30 MODELING OF TENSION-COMPRESSION ASYMMETRY IN FIBER-FILLED ENGINEERING THERMOPLASTIC MATERIALS USING LS-DYNA 2094203 | Subhransu Mohapatra, SABIC

2:00 NON-DESTRUCTIVE MONITORING OF DAMAGE IN CFRP USING ULTRASONIC BIREFRINGENCE 2132912 | Peter Fey, Institut für Kunststofftechnik, University of Stuttgart

2:30 MICROSTRUCTURAL ANALYSIS OF MULTI-SCALE POLYMER COMPOSITES USING OPTICAL MICROSCOPY AND ENTROPIC MEASURES 2136105 | Jason Nixon, University of Maryland, College Park

3:00 DRAPING SIMULATION OF THERMOPLASTIC PREPREGS WITH SPECIAL FOCUS ON THE NON-LINEAR BENDING STIFFNESS 2139169 | Patrick Mabry, University of Wisconsin-Madison

3:30 UNIAXIAL STRAIN EFFECTS ON THE PERCOLATION THRESHOLD OF FIBERS IN POLYMER COMPOSITES: A MONTE CARLO SIMULATION 2139273 | Amir Ameli, University of Toronto

4:00 EVALUATION OF LONG-TERM PERFORMANCE OF GFRTP FOR HOT WATER SUPPLY 2096698 | Atsushi Takeda, Kyoto institute of technology

W21 Engineering Properties and Structure
Structure Properties 3

1:30 KEYNOTE KEYNOTE | Gilles Lubineau, KAUST

2:30 TIME TEMPERATURE SUPERPOSITION PRINCIPLE FOR PREDICTING LONG-TERM RESPONSE OF FIQUE-FIBER REINFORCED POLYETHYLENE-ALUMINUM COMPOSITES 2137608 | Miguel Hidalgo, Universidad Autónoma de Occidente

3:00 HIGH PERFORMANCE CELLULOSICS FOR DEMANDING MEDICAL DEVICE APPLICATIONS 2097888 | Lea Paslay, Eastman Chemical Company

3:30 PRECISE INJECTION MOLDING OF THERMOPLASTICS ELASTOMERS - EVALUATION OF SURFACE REPLICATION AND METAL ADHESION 2093766 | Hiroshi Ito, Yamagata University

W22 Failure Analysis and Prevention
Failure Analysis and Prevention Session

1:30 FAST THERMAL TOMOGRAPHY FOR NON-DESTRUCTIVE TESTING OF PLASTIC COMPONENTS 2096610 | Stefan Kremling, SKZ - German Plastics Center

2:00 COMPUTED TOMOGRAPHY X-RAY IMAGING - A NOVEL TECHNIQUE FOR NON-DESTRUCTIVE EXAMINATION OF PLASTIC PRODUCTS 2097163 | Anand Shah, Engineering Systems Inc.
2:30
NON-DESTRUCTIVE INSPECTION OF PLASTIC COMPONENTS WITH TERAHERTZ TIME DOMAIN SPECTROSCOPY
2096575 | Stefan Kremling, SKZ - German Plastics Center

3:00
FAILURE ANALYSIS OF COPOLYESTER CLAMPS
2139557 | Tommy Washington, Element Materials Technology

3:30
FAILURE ANALYSIS OF A FRACTURED POLYAMIDE 6 SHOCK ABSORBER HOUSING
2091603 | Brian Ralston, Cambridge Polymer Group

4:00
FAILURE ANALYSIS OF A GLASS FILLED PHENOLIC RESIN POWER STEERING PUMP PULLEY
2095423 | Michael Hayes, Engineering Systems Inc.

W23 Injection Molding
Tutorial Session II

1:30
THE UTILITY OF PROPERTY DATA SHEETS FOR PLASTIC MATERIALS
Mike Sepe

2:30
THERMOPLASTIC ELASTOMERS OVERVIEW
Mike Walter

3:30
PREVENT FAILURE BY UNDERSTANDING WHY PLASTIC PARTS CRACK
Jeff Jansen

W24 Injection Molding
Emerging Technologies

1:30
A METHOD FOR CREATING INTERNAL GEOMETRIES IN INJECTION MOLDED PARTS USING WATER SOLUBLE POLYVINYL ALCOHOL (PVOH) INSERTS
2098302 | Jason McNulty, UW-Madison

2:00
STUDY ON THE RELATIONSHIP BETWEEN THE DEGREE OF CRYSTALLINITY AND THE ULTRASONIC VELOCITY FOR POLY(LACTIC ACID) (PLA) PARTS
2137529 | Peng Zhao, Zhejiang University

2:30
CAE VERIFICATION ON GAS-COUNTER PRESSURE MECHANISM IN GAS-ASSISTED INJECTION MOLDING
2132883 | Yan-Mao Huang, Chung Yuan Christian University

3:00
DYNAMIC BEHAVIOR OF CORE-MATERIAL PENETRATION IN MULTI-CAVITY CO-INJECTION MOLDING
2096345 | Chao-Tsai Huang, CoreTech System (Moldex3D) Co. Ltd

3:30
NUMERICAL SIMULATION AND EXPERIMENTATION OF WATER-ASSISTED CO-INJECTION MOLDING OF A NON-CIRCULAR TUBE
2093687 | TANGQING KUANG, East China Jiaotong University

4:00
MANUFACTURING OF FIBRE-REINFORCED, ELASTOMERIC PARTS USING THE INJECTION MOULDING PROCESS
2092606 | Ulf Recht, Institute of Plastics Processing at RWTH Aachen University (IKV)

4:30
SYSTEMATIC DETERMINATION OF PARAMETER INFLUENCES ON WALL THICKNESS DISTRIBUTION FOR THE NEW SPECIAL INJECTION MOLDING PROCESS DIRECT GITBLOW
2084413 | Stefan Seidel, University of Paderborn

W25 Non-Halogenated Flame Retardants
Super Session of Invited Speakers

1:30
DISCUSSION OF FR TRENDS; FOCUS ON STRUCTURES, KEVLAR®/NOMEX®
INVITED | Ley Richardson, Dupont
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<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>2:00</td>
<td>MULTI-FUNCTIONAL DEOXYBENZOIN-BASED EPOXY RESINS</td>
<td>Invited</td>
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<td>2:30</td>
<td>THE HISTORICAL FAA DEVELOPMENT OF IMPROVED FLAMMABILITY TEST METHODS FOR AIRCRAFT INTERIOR MATERIALS</td>
<td>Invited</td>
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<td>3:00</td>
<td>NOVEL FIRE-RESISTANT RENEWABLE MATERIALS DERIVED FROM FRESHWATER ALGAE</td>
<td>Invited</td>
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<td>3:30</td>
<td>INFLUENCING FLAME RETARDANT USE – PRODUCT STANDARDS AND INDIRECT REGULATORY REQUIREMENTS</td>
<td>Invited</td>
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<td>2:00</td>
<td>MECHANICAL PROPERTY ENHANCEMENT IN RECYCLED HIGH-DENSITY POLYETHYLENE (RHDPE) VIA SOLID-STATE PULVERIZATION METHODS</td>
<td>2097805</td>
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<td>3:30</td>
<td>APPLICATIONS FOR RECYCLED POTS, TUBS AND TRAYS</td>
<td>2139608</td>
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<td>1:00</td>
<td>PLASTICS RECOVERED FROM SHREDDED END-OF-LIFE VEHICLES</td>
<td>2096211</td>
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<td>1:30</td>
<td>PLASTICS RECOVERED FROM SHREDDED WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT</td>
<td>2136056</td>
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<td>2:00</td>
<td>IMPLEMENTATION OF POST CONSUMER RECYCLED PLASTIC IN ELECTRONIC PRODUCTS</td>
<td>2096346</td>
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<td>2:30</td>
<td>INTELLIGENT LABELS AS A BASIS FOR AUTO-SORTING OF PLASTIC PACKAGING</td>
<td>2139650</td>
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<td>3:00</td>
<td>INVESTIGATION OF THE INFLUENCE OF COLOR ON PLASTIC PRODUCT FAILURE</td>
<td>2064691</td>
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<td>2:00</td>
<td>ENGINEERING RESIN BASED ON POST-CONSUMER RECYCLED POLYAMIDE 66 FROM CARPETS</td>
<td>2090084</td>
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<td>2:30</td>
<td>CO-EXTRUSION OF CONTINUOUS FIBER COMPOSITES WITH HIGH MECHANICAL PROPERTIES</td>
<td>2094429</td>
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<td>3:00</td>
<td>FILTRATION MEDIA USING A MELT-BASED PROCESSING TECHNIQUE</td>
<td>2094408</td>
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<td>3:30</td>
<td>TRANSPARENT PERMANENT ANTISTATIC POLYCARBONAME BLEND BY REFLECTIVE INDEX MATCHING TECHNOLOGY</td>
<td>2094657</td>
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<td>4:00</td>
<td>A NOVEL METHOD TO MAKE HIGHLY CRYSTALLINE PET ARTICLES BY POWDER COMPACTION</td>
<td>2091015</td>
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4:30
IMPORTANCE OF PROCESSING AND FIBER ORIENTATION FOR REALISTIC PERFORMANCE PREDICTION WITH FIBER REINFORCED THERMOPLASTICS
2105334 | Recep Yaldiz, SABIC

W28 Thermoset Thermoset Session

1:30
BIO BASED ALIPHATIC EPOXY CLAY NANOCOMPOSITES
2095579 | Andres Rigail-Cedeño, University of Massachusetts, Lowell

2:00
INVESTIGATION ON ORIENTATION AND DISTRIBUTION OF METAL FIBER IN EPOXY SUBSTRATE CONTROLLED BY ELECTROMAGNETIC
2096531 | Kuan-Hua Lee, Chung Yuan Christian University

2:30
THROUGH 3D SIMULATION TO STUDY RESIN TRANSFER MOLDING (RTM) PROCESS WITH SANDWICH STRUCTURE AND GRAVITY EFFECTS
2096532 | Tsu-Min Ho, CoreTech System (Moldex3D) Co., Ltd.

3:00
INFLUENCE OF POST-CURING ON THE CHEMICAL STRUCTURE OF PHENOLIC MOLDING COMPOUNDS
2096612 | Sascha Englisch, Chemnitz University of Technology

3:30
INFLUENCE OF MATERIAL BATCH AND MOISTURE CONTENT ON THE PROCESSING BEHAVIOR AND DIMENSIONAL STABILITY OF PHENOLIC MOLDING COMPOUNDS
2096973 | Torsten Maenz, Robert Bosch GmbH

4:00
BASIC STUDY OF THERMOSETTING INJECTION COMPOSITES
2097167 | Taketaro Kobayashi, Kobayashi Industry Co., LTD

4:30
CHEMORHEOLOGY OF GLYCIDYL AZIDE POLYMER – BI-PROPARGYL SUCCINATE REACTIVE SYSTEMS
2139141 | Charles Dubois, Ecole Polytechnique

W29 Additive Mfg/3Dp Working Group Recent Advances In Additive Manufacturing/3D

UNDERGRADUATE POSTERS

PIEZOELECTRIC CHARACTERIZATION AND ACTUATION SPECIFICITY OF DIRECTLY PAT-TERENED POLYVINYLIDENE FLUORIDE-CARBON NANOTUBE NANOCOMPOSITES
2094571 | Allison Goins

SYNERGISTIC EFFECTS OF PBS, NANOCLAY, AND CHAIN EXTENDER ON INCREASING CRYSTALLINITY PLA AND ITS BLOWN FILM PROCESSABILITY
2183386 | Tatiya Trongsatitkul

FABRICATION AND ANALYSIS OF LED FACE-LIT ACRYLIC LETTERS
2182046 | Michael Durand

INFRARED VELOCITY SENSOR IN-CAVITY STUDY
2179162 | Jack Evans

INFRARED TEMPERATURE SENSOR IN-CAVITY STUDY
2180960 | Jack Evans

FABRICATION AND TESTING OF BIO-ABSORBABLE POLYLACTIC ACID BONE SCREW
2180534 | Abigail Rich

EVALUATING THE EFFECTS OF BIO-FILLERS IN POLYPROPYLENE
2180799 | Nathan Piedimonte

SPOT COOLING WITH LIQUID CARBON DIOXIDE WITH IN-MOLD LABELING
2180939 | Stacey Johnson

BIO-BOR MATERIAL COMPOSITES
2181415 | Abigail Gilmore
MEASURING FIBER LENGTH DISTRIBUTION OF DISCONTINUOUS FIBER-REINFORCED COMPOSITES
2181313 | William Kucinski

A METHOD FOR CREATING INTERNAL GEOMETRIES IN INJECTION MOLDED PARTS USING WATER SOLUBLE POLYVINYL ALCOHOL (PVOH) INSERTS
2181443 | Cyrus Thompson

STRUCTURE AND PROCESSING EFFECTS OF A REBUILDABLE TERNARY BLEND COMPOSED OF POLYOLEFIN ELASTOMER, POLYETHYLENE OXIDE, AND SILICA PARTICLES
2181440 | Joshua Barbara

DESIGN AND CONSTRUCTION OF EXTRUSION CAPILLARY RHEOMETER
2181764 | Tyler Naatz

PART VARIABILITY STUDY USING INJECTION MOLDING CONTROL SOFTWARE
2181777 | Benjamin Cain

GRADUATE POSTERS

EFFECT OF SCREW GEOMETRIES ON FIBER LENGTH AND DISPERSION OF FRTP IN INJECTION MOLDING
2180804 | So Shimokusuzono

THERMAL EXPANSION AND CYCLING EFFECTS ON POSS-EPOXY THERMOSET COMPOSITES
2089163 | Jessica Piness

CHARACTERIZATION OF CARBONIZED ELECTROSPUN LIGNIN FIBERS
2181893 | Vida Poursorkhabi, University of Guelph

THE MECHANICAL, THERMAL AND BARRIER PERFORMANCE OF THE ADDITIVE-MODIFIED POLY LACTIDE (PLA)/POLYPROPYLENE CARBONATE (PPC) BLEND CAST FILMS
2182062 | Qirui Sun, University of Guelph

EFFECTS ON THE FLAMMABILITY OF POLYPROPYLENE BASED BIOCOMPOSITES UNDER ACCELERATED AGING CONDITIONS
2181901 | Emmanuel Ogunsona, University of Guelph

CURING KINETICS STUDY OF A BIOBASED EPOXY
2181900 | Ghodsieh Mashouf Roudsari, University of Guelph

PROPERTIES OF BIOCHAR AS A BIOBASED FILLER FOR POLYMER COMPOSITES
2181898 | Ehsan Behazin, University of Guelph

THE EFFECT OF PROCESSING ON INJECTION MOLDED POLY(LACTIC ACID)/ACRYLONITRILE BUTADIENE STYRENE BLENDS
2181896 | Ryan Vadori, University of Guelph

SYNTHESIS AND CHARACTERIZATION OF BIOPOLYESTERS FROM REFINED CRUDE GLYCEROL AND SUCCINIC ACID
2181041 | Oscar Valerio, University of Guelph

DURABILITY STUDIES OF BIODEGRADABLE POLYMERS UNDER SIMULATED ENVIRONMENTAL CONDITIONS
2140053 | Rajendran Muthuraj, University of Guelph

INVESTIGATING OPERATING CONDITIONS AND MECHANICAL PERFORMANCE OF CO-INJECTED POLYLACTIC ACID AND POLYCAPROLACTONE
2140051 | Nicholas Hotz, University of Guelph

ANALYZING THE PERFORMANCE OF A LIGNIN-BASED ALTERNATIVE TO CARBON BLACK IN BIONANOCOMPOSITES
2181899 | Michael Snowdon, University of Guelph

IN-PLANE THERMAL CONDUCTIVITY OF GRAPHITE NANOPLATELET MODIFIED LLDPE FILMS
2097989 | Ozgun Ozdemir

GEL SPINNING OF UHMWPE FIBERS WITH LOW MOLECULAR WEIGHT POLYBUTENE AS A NEW SPIN SOLVENT
2147579 | Xudong Fan, Georgia Tech
THERMAL ANALYSIS OF POLYURETHANE REACTION BEHAVIOR FOR PLASTIC-BONDED EXPLOSIVES
2091293 | Jong Han Choi

TOUGHENING BIODEGRADABLE POLY(LACTIC ACID)/THERMOPLASTIC POLYURETHANE BLENDS VIA REACTIVE EXTRUSION WITH MDI
2139224 | Han-Xiong Huang

MICROINJECTION COMPRESSION MOLDING OF MICRO-NANO HIERARCHICAL STRUCTURES ON BIOMIMETIC SUPERHYDROPHOBIC SURFACES WITH GRADUALLY TUNABLE WATER ADHESION
2139891 | Han-Xiong Huang

ALTERNATING MULTILAYERED POLYPROPYLENE/POLY(ETHYLENE-CO-OCTENE) SHEETS WITH ENHANCED LOW TEMPERATURE IMPACT TOUGHNESS
2139890 | Han-Xiong Huang

SYNTHESIS OF POLYMER-LAYERED SILICATE NANOCOMPOSITE COATING: ENHANCING THE ENVIRONMENTAL DURABILITY OF CELLULOSE NITRATE
2098127 | Precious Mitchell

ANTIMICROBIAL ASSESSMENT OF CORE-SHELL NANOFIBER SCAFFOLD IN APPLICATIONS OF WOUND HEALING
2182344 | Sepideh Niknezhad

BONDING STRENGTH IMPROVEMENT FOR FIBER METAL LAMINATE (FML)
2137820 | Pritesh Sudhakar Yeole

IMPROVED MECHANICAL PROPERTIES OF CUO NANOSTRUCTURED WOVEN CARBON FIBER COMPOSITE
2146199 | Kyungil Kong, UNIST

MECHANICAL AND FOAMING BEHAVIORS OF PLA TOUGHENED BY SILICON RUBBER MECHANICAL AND FOAMING BEHAVIORS OF PLA TOUGHENED BY SILICON RUBBER
2160416 | Huan Li, Qingdao University of Science and Engineering

THERMOSETTING RESIN COMPOSITIONS BASED ON BIO-DERIVED PHENOLS AND SUGARS
2179437 | Kenneth Samuel Ogueri, University of Massachusetts, Lowell

UNRAVELING THE MECHANISM OF THERMAL AND THERMO-OXIDATIVE DEGRADATION OF TANNIC ACID
2187291 | Zhiyu Xia, University of Massachusetts, Lowell

PROFESSIONAL POSTERS

Polymer Modifiers and Additives

ALKYLATION OF NANOCELLULOSE FOR THE IMPROVEMENT OF DISPERSION IN THE POLYMER MATRIX
2096649 | Seong Hun Kim, Hanyang University

ADVANCED POLYMER MATERIALS SYNTHESIZED BY NEW LIVING RADICAL POLYMERIZATION METHOD (TERP)
2092586 | Hiroyuki Ishitobi, Otsuka Chemical Co., Ltd.

Failure Analysis and Prevention

COMPARATIVE STUDY ON NON-DESTRUCTIVE TESTING METHODS FOR PLASTICS INDUSTRY
2096622 | Stefan Kremling, SKZ - German Plastics Center

NON-DESTRUCTIVE TESTING OF POLYMER COMPONENTS USING ALL-ELECTRONIC TERAHERTZ SYSTEMS
2096598 | Stefan Kremling, SKZ - German Plastics Center

Engineering Properties and Structure

SURFACE MODIFICATION OF NANO SILICA FOR ORGANIC/INORGANIC HYBRID UV CURABLE ACRYLATE HARD COATING
2096661 | Ho Jong Kang, Dankook University

ORIENTATION BIREFRINGENCE OF POLY(METHYL METHACRYLATE) CONTAINING LOW-MASS COMPOUND
2076814 | Ayumi Kiyama, Japan Advanced Institution of science and technology
STUDY ON INTERPHASE TRANSFER OF THE LIQUID TACKIFIER BETWEEN IMMISCIBLE RUBBER PAIR
2075802 | Nawaphorn Kuhakongkiat, Japan Advanced Institute of Science and Technology

ULTRASONIC TREATMENT OF PP/CNT COMPOSITES DURING TWIN-SCREW EXTRUSION: EFFECT OF SCREW CONFIGURATION
2098053 | Jing Zhong, University of Akron

Alloys and Blends
THE INFLUENCE OF PROCESSING CONDITIONS ON THE CRYSTALLIZATION BEHAVIOR OF POLYPROPYLENE MODIFIED BY IONOMERS
2096342 | Gaopin Yang, East China University of Science and Technology

Electrical & Electronic
BISMALEIMIDE AND BORON NITRIDE COMPOSITES: THERMAL CONDUCTIVITY AND DIELECTRIC STRENGTH CHARACTERIZATION
2139181 | Nathan Warner, University of North Texas

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