

Monday 20					
Mon 9:00 Mon 9:30	Opening Ceremony (Room Bolivar - Essentia) Conference Chair: Jorge Alberto Medina Perilla; President of PPS: Sadhan Jana; President of Acoplasticos: Daniel Mitchell				
Mon 9:30 Mon 10:10	Plenary: Nanostructure Control in 3D Printing through Polymerization Self-Assembly Process (Room Bolivar - Essentia) Cyrille Boyer (University of New South Wales, Australia) Session Chair: Tim A. Osswald, University Winsconsin Madison, USA				
Mon 10:10 Mon 10:40	Industrial Keynote: Chemical recycling, Driver to achieve the sustainability in the plastic industry (Room Bolivar - Essentia) Enrique Mogollón Rincón (ESSENTIA S.A, Colombia) Session Chair: Tim A. Osswald, University Winsconsin Madison, USA				
Coffe Break	Bolivar Room - Essentia		Room Cartagena - Daabon		Room Bolivar - Xplore
Morning session	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: Rios de Anda Agustín, Université Paris Est Créteil, France	Morning session	MODELING & SIMULATION Session Chair: Amine Ammar, ENSAM, France	Morning session	FUNCTIONAL ADDITIVES AND REACTIVE PROCESSING Session Chair: Ernesto Di Maio, University of Naples Federico II, Italy
Mon 11:00	Distinguished Keynote: Bioplastics, Biocomposites, Bioprocessing and Biodegradability: Current Scenario and Future Vision Amar K. Mohanty (School of Engineering & Department of Plant Agriculture, University of Guelph, Canada)	Mon 11:00	Keynote: Digital Twin or Distant Cousin? The practical realities of modeling polymer material behavior in complex manufacturing processes. Costa Franco (Autodesk, Australia)	Mon 11:00	Keynote: Thin films from modified polyglycolic acid with excellent water vapor barrier Hilhorst Marieke (Wageningen Food & Biobased Research, Netherlands), Caliar Sara, Post Wouter, Kuijpers Bert, Alvarado Chacon Fresia
Mon 11:30	Chlorella Microalgae as a Biomass Filler to Fabricate Eco-friendly Composite Hong Joung Sook (Seoul National University, South Korea) Kim JaeHyun, Ahn Kyung Hyun	Mon 11:30	Anisotropic Effect of Fiber Orientation on Thermal Conductivity in Injection Molding Simulations of Composites Wang Jin (Autodesk, USA), Costa Franco S., Perumal Vishak, Rhoades Philip, Brincat Paul	Mon 11:30	Rheological investigation of chain modified recycled polyethylene terephthalate/polybutylene terephthalate blends and their corresponding foaming behavior Nofar Mohammadreza (Istanbul Technical University, Turkey), Akdevelioğlu Yavuz, Himmelsbach Andreas, Ruchdäschel Holger
Mon 11:50	Investigation of pine hardwood extract as antimicrobial additive in biodegradable polymers Riemer Michael (Technische Universität Ilmenau, Germany), Bruchmüller M., Puch F.	Mon 11:50	Simulation of the Melting Region in Additive Manufacturing Material Extrusion Dies for Highly Filled Feedstocks Schuschnigg Stephan (Montanuniversitaet Leoben; Austria), Hentschel Lukas, Holzer Clemens	Mon 11:50	Synthesis of cardanol derived from cashew nut shell liquid and utilization as an epoxy resin plasticizer León Johan (Universidad de los Andes, Colombia), Ortiz Jeniffer Gabriela, Hernandez Camilo, Ayala-Garcia Camilo, Marañon Alejandro, Gonzales Andrés, Alvarez Oscar, Porras Alicia
Mon 12:10	Synthesis of bio-composites using newly designed hybrid filler (cellulose/LDH) and polylactic acid (PLA) Naseem Sajid (Leibniz Institute of Polymer Reserach Dresden, Germany), Heckel Sandra, Zahel Martin, Leuteritz Andreas	Mon 12:10	Fatigue lifetime analysis of POM gears for generalized tooth root loading and shapes Eberlein Robert (ZHAW, Switzerland), Düzel Sven	Mon 12:10	Adsorption Influence of Blend Surfactants with Silica Nanoparticles Mixture on a Highly Heterogeneous Rock Undergoing Chemical Injection. Mendoza Ramirez Christian (Universidad Industrial de Santander, Colombia), Gambus Ordaz Maika, Mercado Ojeda Ronald
Mon 12:30	Reactive extrusion of lignocellulosic biomass to produce biopolymer-monomers using high energy radiation and catalytic acids Krey Adrian (Technische Hochschule Rosenheim, Germany), Zenz Vitus, Widera Karolin, List Manuela, Muscat Dirk, Strübbe Nicole	Mon 12:30	Design Optimisation of Rotationally Moulded Hydrogen Pressure Vessels Pritchard Alex Jonathan (Queen's University Belfastm United Kingdom), Martin Peter, McCourt Mark, Kearns Mark	Mon 12:30	Incorporation of carbon based materials as functional additives into anionic polymerized cast polyamides for tailor-made industrial applications Häublein-González Laura Natalia (Thuringian Institute for Textile and Plastics Research, Germany)
Mon 12:50		Mon 12:50		Mon 12:50	
Lunch					
Mon 14:20 Mon 15:00	Plenary: Towards a Circular Economy: Recycling Thermoset Waste Via Dynamic Chemistry (Room Bolivar - Essentia) Ica Manas Zloczower (Case Western Reserve University, Department of Macromolecular Science and Engineering, USA), Session Chair: Sierra Avila Cesar Augusto, Universidad Nacional de Colombia, Colombia				
Break					
Afternoon session	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: Petrausch Julius, Leibniz-Institut für Polymerforschung Dresden, Germany	Afternoon session	MODELING & SIMULATION Session Chair: Rodrigo Albuquerque, University of Bayreuth, Germany	Afternoon session	POLYMER BLENDS & ALLOYS Session Chair: Margaret J. Sobkowicz, University of Massachusetts Lowell
Mon 15:10	Keynote: Evaluation of Polyhydroxyalkanoates machine learning-generated compounds for medical devices applications Delahuny Yohann (NovoNordisk & Technical University of Denmark, Denmark), Islam Aminul, Bøgelund Jesper, Zhang Yang	Mon 15:10	Keynote: Film Blowing Simulations with Integral Constitutive Equations Mitsoulis Evan (National Technical University of Athens, Greece)	Mon 15:10	Keynote: Compatibilization Polymer Blends by Electron Beam Irradiation Kenig Shmuel (Shenkar College of Engineering, Design and Art, Israel), Dadiuk Hanna, Zommer Nathan
Mon 15:40	Synthesis of PLA-PEG-PLA triblock copolymer microparticles using microfluidics technique as potential drug delivery systems Bikiaris Nikos (Aristotle University of Thessaloniki, Greece), Barmapalexis Panagiotis	Mon 15:40	Simplified movement model to predict the thickness distribution of Robomould product Vanherck Jarne (KU Leuven, Belgium), Zhou Hangtian, Goris Mathijs, Martin Peter, Van Bael Albert, Demeester Eric, Kellens Karel, Deckers Elke	Mon 15:40	Towards the design of stretchable encapsulants for self-healing liquid metal-based electronics using blended Diels-Alder networks Sahraeazartamar Fatemeh (Vrije Universiteit Brussel, Belgium), Terry Seppe, Sangma Rathul Nengminza, Krack Maximilian,
Mon 16:00	Wine by-products as sustainable polymer stabilizers – impact of annual variations on stabilization efficiency Hiller Benedikt Theodor (Institute for Circular Economy of Biopolymers at Hof University, Germany), Schübel Lea, Rennert Mirko	Mon 16:00	Simulative flow study to assess the processing stability of recycled polypropylene during injection molding Hohoff Paula (University of Wisconsin, USA)	Mon 16:00	Effect of Steady Shear on Electrically Conductive co-Continuous Morphology Blends Demarquette Nicole (Ecole de Technologie Supérieure de Montreal, Canada), Strugova Daria, Essadouky Hind, Hetal Emna, David Eric
Mon 16:20	Influence of irradiation processing in the melt on stereo complex formation and physical crosslinking of blends from PLLA and PDLA Krieg David (Institute for the Circular Economy of Biopolymers at Hof University, Germany), Müller Michael Thomas, Boldt Regine,	Mon 16:20	Simulation of the Fused Deposition Modeling Process with Moving Meshes Nóbrega Joao Miguel (University of Minho, Portugal), Castro João, Costa Ricardo	Mon 16:20	High-Performance Thermoplastic PEEK-based Hybrid Systems for the Lunar Environment Lassus Arthur (Polytechnique Montreal, Canada), Therriault Daniel, Favis Basil D., Virgilio Nick
Mon 16:40		Mon 16:40		Mon 16:40	
Coffee Break					
	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: Chejne Janna Farid, Universidad Nacional de Colombia, Colombia		MODELING & SIMULATION Session Chair: Joao Miguel Nobrega, University of Minho, Portugal		POLYMER BLENDS & ALLOYS Session Chair: Jairo Ernesto Perilla Perilla, Universidad Nacional de Colombia, Colombia
Mon 17:00	Demystifying the crystallization kinetics of polyhydroxyalkanoates (PHAs) through hyperthermal cycles Behzadfar Ehsan (Toronto Metropolitan University, Canada), Mondol Anindita, Wang Jun, Ein-Mozaffari Farhad	Mon 17:00	Virtualized engineering of injection-molded thermoplastic parts – Fast emulators and uncertainty quantification Cruz Camilo (Robert Bosch GmbH, Germany), Le Baube Valérie, Saad Sandra	Mon 17:00	Enhancing Toughness and Interfacial Compatibility in PLA/PBAT/Joncryl Blends through Two-Step Blending Salehian Reza (Edinburgh Napier University, United Kingdom)
Mon 17:20	Processability study of thermoplastic starch/poly(butylene succinate) blends in a reactive extrusion Vargas Rojas Manuela (Universidad de los Andes, Colombia), Salcedo-Galan Felipe, Medina-Perilla Jorge Alberto	Mon 17:20	Simulative Approach for Predicting the Heating Behavior of Elastomers in the Solid-State Microwave Heating Process Petzke Jonas (Paderborn University, Germany), Kleinschmidt Dennis,	Mon 17:20	Study of a new 3D printing composite for microwave absorption applications Ville Julien (UBO - IRDL UMR CNRS, France), Le Saos-Kauten Arnaud, Roquefort Philippe, Aubry Thierry, Laur Vincent, Chevalier Alexis, Maalouf Azar
Mon 17:40	Evaluation of dicumyl peroxide as a coupling agent in thermoplastic starch and BioPBS composites López Galindo Angie Stephany (Universidad de Los Andes, Colombia), Vargas Rojas Manuela, Medina Perilla Jorge Alberto	Mon 17:40	One-dimensional CFD-based model for downdrawn polypropylene in spunbondin Mohajer Behrang (University of Toronto), Salehi Amirmehd, Jalali Amirjalal, Bussmann Markus, Park Chul	Mon 17:40	Keynote: Impact of stratification on mechanical properties of SAN/PC and ABS/PC multilayered films Sollogoub Cyrille (Ecole Nationale Supérieure d'arts et Metiers, France)
Mon 18:00	Evaluation of the effect of cellulose nanofibers in thermoplastic starch films García-Aramendiz Johan Sebastián (Universidad de Los Andes, Colombia), Forero-Varela Leonardo, Medina-Perilla Jorge Alberto	Mon 18:00	Theoretical insights into wall slip effects on displacement flows of non-Newtonian fluids for polymer processing applications Taghavi Seyed Mohammad (Université Laval, Canada)	Mon 18:10	
Mon 18:20 Mon 19:20	POSTER SESSION I - Hilton's Cartagena Mezzanine - Poster Awards Sponsored by Polymers				

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Coffee Break		Room Guacamayo - Plastilene		Room Bolivar - TA Instruments		Room NETZSCH		
Morning session	POLYMERS IN THE SUSTAINABLE DEVELOPMENT GOALS OF THE UNITED NATIONS Session Chair: Aminul Islam, Technical University of Denmark, Denmark		Morning session	RHEOLOGY & CHARACTERIZATION Session Chair: Octavio Manero, National Autonomous University of Mexico, Mexico		Morning session	MECHANICAL PROPERTIES & FRACTURE Session Chair: Alejandro J. Müller, University of the Basque Country UPV-EHU, Spain	
Mon 11:00	Keynote: Virgin and degraded polyamide microplastics as vectors of contaminants in aquatic systems De Paoli Marco Aurelio (Unicamp, Brazil), Dias Mariana A, Montagner Cassiana		Mon 11:00	Keynote: THE INTERPLAY OF SHEAR-INDUCED UNCOIL AND DISENTANGLEMENT OF POLYMER CHAINS Canevarolo Sebastião Vicente (Federal University of São Carlos, Brazil), Tambolim Murilo		Mon 11:00	Keynote: Non-Linear Fracture Mechanical Response of Polymers Frontini Patricia Maria, (University of Mar del Plata, Argentina)	
Mon 11:30	WPC from Uruguayan industrial waste - A first approximation Raimonda Pablo (UdelaR, Uruguay), Raimonda Camila, Mosca Daniel, Ibañez Claudia Marcela		Mon 11:30	Material Property Prediction of Recycled Polypropylene via Data Driven Modeling Estela Garcia John Emmanuelle (University of Wisconsin, USA)		Mon 11:30	Influence of fiber orientation and temperature on the creep-fatigue behavior of short fiber reinforced high-performance polymers Stadler Gabriel (Montanuniversität Leoben, Austria), Pinter Gerald	
Mon 11:50	Effect of UV-C light on Oxygen Scavenging Kinetics of Green and Biodegradable Composite Films for Active Food Packaging Dakuri Ramakanth (Indian Institute of Technology Roorkee, India), Konala Akhila, Kirtiraj K. Gaikwad, Pradip K. Maji		Mon 11:50	Rheological behavior of soft Thermoplastic Elastomers based on polyolefin blends: Process-oriented representation by rheometric data Wiesner Sven (Leibniz-Institut fuer Polymerforschung Dresden, Germany), Kaempfe Markus, Fischer Matthieu, Kuehnert Ines		Mon 11:50	Exploring the Interplay Between Process, Structure, and Resulting Properties in Polymeric Multi-material Composites Inspired by Lithomimetics Principle Waly Christoph (Montanuniversitaet Leoben, Austria), Arbeiter Florian	
Mon 12:10	Ethylene Vinyl Alcohol (EVOH) for sustainable food production-Case Scenarios Maya Diana G. (Kuraray America Inc., USA), Chow Edgard A.		Mon 12:10	Dynamic Mechanical Analysis: A Tool for Quality Control of Rubber Products Walluch Matthias (Anton Paar GmbH, Austria), Kerschbaumer Roman Christopher, Hornbacher Michaela		Mon 12:10	Influence of Process Parameters on Morphology and Fatigue Behavior of Short-Fiber-reinforced Polymers Kaylani Dario (Polymer Competence Center Leoben, Austria), Stadler Gabriel, Pinter Gerald	
Mon 12:30	Keynote: Meeting the Challenge of Microplastics Pollution: Formation Pathways and Impact on Living Organisms Bikiaris Dimitrios N. (Aristotle University of Thessaloniki, Greece), Ainali Nina Maria, Lambropoulou Dimitroula		Mon 12:30	Determination of Uniaxial and Planar Extensional Viscosity Using High-Pressure Capillary Rheometry Rolfe Philip (NETZSCH, USA), Szántó Levente, Redmann Alec, Marsh Shona, Zatloukal Martin		Mon 12:30	DETERMINATION OF CREEP CRACK GROWTH KINETICS OF ABS VIA THE C* APPROACH AT DIFFERENT TEMPERATURES FRONTINI PATRICIA MARIA (University of Mar del Plata, Argentina),	
Mon 13:00 Lunch						Mon 12:50		
Mon 14:20 Mon 15:00	Plenary: Towards a Circular Economy: Recycling Thermoset Waste Via Dynamic Chemistry (Room Bolivar - Essentia) Ica Manas Zloczower (Case Western Reserve University, Department of Macromolecular Science and Engineering, USA), Session Chair: Sierra Avila Cesar Augusto, Universidad Nacional de Colombia, Colombia							
Break								
Afternoon session	POLYMERS IN THE SUSTAINABLE DEVELOPMENT GOALS OF THE UNITED NATIONS Session Chair: Pablo Raimonda, Universidad de la Republica Uruguay		Afternoon session	RHEOLOGY & CHARACTERIZATION Session Chair: Khatid Lamnawar, INSA Lyon, France		Afternoon session	MECHANICAL PROPERTIES & FRACTURE Session Chair: Patricia Frontini, Universidad Nacional del Mar del Plata, Argentina	
Mon 15:10	A review on the presence of microplastics in drinking water distribution networks Criollo Sara (Universidad de los Andes, Colombia), Camacho Luis Alejandro		Mon 15:10	Development of an Extraction and HPLC Quantification Method for Plasticizers as a Valuable Tool for Quality Control and Prediction of Adhesion Between Topcoat Layers in Vinyl Coated Fabrics Pelaez Gabriel Jaime (Proquinal, Colombia), Acelas Mauricio, Lasprilla-Botero Juliana, Giraldo Luis Fernando, Orozco Victor		Mon 15:10	Electrolyte Resistance of Amine Based Epoxy's used for Lithium-Ion Battery Cell Housings Bayer Moritz (University of Duisburg-Essen, Germany), Emrich Niclas, Schiffers Reinhard	
Mon 15:30	Mercury Contamination and PVC Production: Global Impact, Initiatives, and Sustainable Solutions Garcia M Angela M (Escuela Tecnológica Instituto Técnico Central, Colombia), Medina Perilla Jorge Alberto		Mon 15:30	Rheological analysis of modified PLA by reactive process aiming at the production of foams Suquizaqui Ana Beatriz Valim (Federal University of São Carlos UFSCar, Brazil), Bretas Rosario Elida Suman, Bras Julien, Bettini Silvia Helena Prado		Mon 15:30	TPMS lattice structures characterization under quasi-static conditions Serrano Ruiz Daniel Eduardo (Universidad de los Andes, Colombia), Casas Rodriguez Juan Pablo	
Mon 15:50	Fully bio-based short fibre composites for material extrusion additive manufacturing Gonzalez-Gutierrez Joamin (Luxembourg Institute of Science and Technology, Luxembourg), Naik Mahesh Anil, Huber Tim, Westermann Stephan		Mon 15:50	Rheology of PVC plastisols containing a recycled fraction: study of model systems FAJARDIE Pauline (Laboratoire d'Ingénierie des Matériaux Polymères, France), CASSAGNAU Philippe, CARROT Christian		Mon 15:50	Keynote: Sustainable Manufacturing: Enhancing Mechanical Behavior of Common Polymers Through Deformation Processing Wnek Gary (Case Western Reserve University, USA)	
Mon 16:10	Impact of Processing Parameters on the Mechanical and Self-Healing Behavior of a 3D Printable Thermoplastic/Thermoset Polymer Blend Lewis Christopher L (Rochester Institute of Technology, USA), Mei Vincent, Schimmelpfennig Kory, Colvin Stone, Caravaca Elbert		Mon 16:10	RAMAN & NANORAMAN/ NANOPHOTOLUMINESCENCE: MULTIMODAL CO-LOCALIZED SPECTROSCOPY FOR PHYSICO-CHEMICAL CHARACTERIZATION OF POLYMERS Cabral Filipe (Horiba Scientific Brazi, Brazil), Carvalho Igor		Mon 16:20		
Mon 16:30						Mon 16:30		
Coffee Break								
ADDITIVE MANUFACTURING (3D PRINTING) Session Chair: Ana Vera Machado University of Minho			RHEOLOGY & CHARACTERIZATION Session Chair: Felipe Salcedo, Universidad de los Andes, Colombia			POLYMER FOAMS & MEMBRANES Session Chair: Paula Moldenaers, KU Leuven, Belgium		
Mon 17:00	Keynote: How polymer-based pharmaceutical additive manufacturing can heal millions of patients via personalized medicine Spoerk Martin (Research Center Pharmaceutical Engineering GmbH, Austria), Eder Simone, Brandl Bianca		Mon 17:00	Keynote: Exploring Fluids' Behavior: Lab-Scale Capillary Breakup Extensional Rheometer and Its Applications in Polymer Processing Beaudoin Étienne (école de technologie supérieure, Canada), Kubaski Mauricio, Zednik Ricardo, Demarquette Nicole		Mon 17:00	Distinguished Keynote: Processing of polymer bead foams - state of the art, perspectives and trends Neumeyer Thomas (Leibniz-Institut für Verbundwerkstoffe, Germany), Salmins Maximilian	
Mon 17:30	Characterization and 3D printing of PLA/PBAT blends compatibilized with epoxidized canola oil WAHBI MOHAMED (Queen's University, Canada), Kontopoulou Marianna, De France Kiven, Litke Quintin, Liu Song, Levin David		Mon 17:30	Examination of Rubber and Biopolymer Materials at the 3D-Nanoscale using Advanced Electron and Ion Microscopy Methodologies Sezen Ozkoc Meltem (Sabanci University SUNUM Nanotechnology Research and Application Center, Turkey),		Mon 17:30	The effect of type of processing in obtaining membranes based on esterified Poly(vinyl alcohol) (PVOH). Muñoz Macías Jessica Jazmin (Instituto Potosino de Investigación Científica y Tecnológica A.C., Mexico), Escobar Barrios Vladimir Alonso	
Mon 17:50	Bio-Based Backbone for Highly-Reactive Metal Alloys Feedstocks for MEX Holzer Clemens H. (Montanuniversitaet Leoben, Austria), Momeni Vahid, Pöhle Georg, Riecker Sebastian, Schuschnigg Stephan, Kukla Christian		Mon 17:50	The Development of Polycarbonate Properties via In-situ Nanofibrillation Method Using Elastomer Nanofibril Network Park Chul B. (University of Toronto, Canada), Akrami Hamidreza, Zaoui Aniss		Mon 17:50	From vibrating molecules to a running shoe: Connecting dielectric properties with process feedback in radio-frequency welding of TPU bead foams Dippold Marcel (University of Bayreuth, Germany), Chairpoulou Makrina Artemis, Drexler Maximilian, Ruckdäschel Holger	
Mon 18:10						Mon 18:10		
Mon 18:20	POSTER SESSION I - Hilton's Cartagena Mezzanine - Poster Awards Sponsored by Polymers							
Mon 19:20								

Tuesday 21					
Tue 8:30 Tue 9:10	Plenary: Environmentally Safe Preservation, Stabilization and Processing of Natural Rubber Latex in an Acid Environment (Room Bolivar - Orbia) <u>Tim A. Osswald</u> (University of Wisconsin Madison, USA), Session Chair: <u>Jairo Ernesto Perilla, Universidad Nacional de Colombia, Colombia</u>				
Tue 9:10 Tue 9:40	Industrial Keynote: A review of how PVC contributes to sustainability (Room Bolivar - Orbia) Cleinst Cabrera(Orbia, Colombia) Session Chair: <u>Jairo Ernesto Perilla, Universidad Nacional de Colombia, Colombia</u>				
Break	Bolivar Room - Orbia		Room Cartagena - Daabon		Room Bolivar - Xplore
Morning session	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: <u>Marcelo Villar, Universidad Nacional del Sur, Argentina</u>		MODELING & SIMULATION Session Chair: <u>Evan Mitsoulis, National Technical University of Athens, Greece</u>		RUBBER & ELASTOMERS Session Chair: <u>Gehling Tobias, Polymer Competence Center Leoben, Austria</u>
Tue 9:50	Keynote: On the Cryo-Moulding process and subsequent forming processes of biopolymers with low glass transition temperature <u>Petrausch Julius</u> (Leibniz-Institut für Polymerforschung Dresden, Germany), <u>Klein Daniel, Johannes Zimmer, Stommel Markus</u>		Keynote: Global Process Modeling. Extrusion vs Injection Molding <u>Wilczyński Krzysztof</u> (Warsaw University of Technology, Poland), <u>Nastaj Andrzej, Lewandowski Adrian, Krzysztof J. Wilczynski, Narowski Przemyslaw, Buziak Kamila</u>		Keynote: Conductive elastomers nanocomposites for IP²C soft sensors <u>Barbosa Rafael</u> (Federal University of Sao Carlos, Brazil), <u>Saccardo Matheus Colovati, Blanco Guilherme Eduardo de Oliveira, Gonçalves Roger, Cruz Sandra Andrea, Scuracchio Carlos Henrique</u>
Tue 10:20	Photoactive films made from alginate and chlorophyllin <u>Arboleda-Murillo J Alejandro</u> (Universidad del Quindío, Colombia)		Injection molding simulation with crystallization kinetics of Polyoxymethylene and comparison with experimental data <u>Schrank Theresia</u> (Polymer Competence Center Leoben, Austria), <u>Berer Michael, Ramoa Bruno, Lucyshyn Thomas, Pinter Gerald, Speranza Vito, Pantani Roberto</u>		Processing of Thermoplastic Elastomers (TPE) by in-situ Ground Tire Rubber (GTR) vulcanization using waste ethylene-vinyl-acetate (wEVA), recycled high-density polyethylene (rHDPE) and dicumyl peroxide (DCP) <u>Suarez Loor Jose Antonio</u> (ESPOL, Ecuador), <u>Rigail Cedeño Andrés, Lazo Miriam, Adrian Estephany, Vera Joan</u>
Tue 10:40					
Coffe Break					
Afternoon session	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: <u>Jorge Alberto Medina Perilla, Universidad de los Andes, Colombia</u>		MODELING & SIMULATION Session Chair: <u>Wilczyński Krzysztof, Warsaw University of Technology, Poland</u>		RUBBER & ELASTOMERS Session Chair: <u>Robert Eberlein, ZHAW, Switzerland</u>
Tue 11:00	Production of a Starch-Based Polymeric Coating with Incorporation of Bioactive Principles from Chemical Synthesis to extend the shelf life of Cavendish banana. <u>Salcedo Felipe</u> (Universidad de los Andes, Colombia), <u>Bejarano Molina Jose Felipe, Diaz Ochoa Juan Diego, Ortega Santiago Yina Paola, Vaca Bohorquez Ariel Mauricio</u>		Calibration of Mechanical Properties of Fiber Composites for Improved Injection Molding Shape Prediction <u>Wang Yin</u> (Autodesk, USA), <u>Costa Franco S, Bakharev Alex, Yuan Zhongshuang, Wang Jin, Han Sejin</u>		Improvement of an alternative method for the correction of wall slip effects in rheological studies of filled rubber compounds <u>Kleinschmidt Dennis</u> (Paderborn University, Germany), <u>Brüning Florian, Petzke Jonas</u>
Tue 11:20	Transforming Agriculture: Advancements in Compost-Biopolymers Composites for Enhanced Sustainability <u>Ortega Santiago Yina Paola</u> (Universidad Popular del Cesar Seccional Aguachica, Colombia), <u>Salcedo Galan Felipe</u>		Optimizing Modeling the Multi-Layer Co-Extrusion Flow of Non-Newtonian Fluids Through Rectangular Ducts: Appropriate Shear Rate Definition for a Local Power-Law Formulation <u>Naderer Thomas</u> (Johannes Kepler University Linz, Austria), <u>Hammer Alexander, Roland Wolfgang, Zacher Maximilian, Berger-Weber Gerald</u>		Recycling of Multi-component parts with Thermoplastic Elastomers <u>Avendaño Viviana</u> (ALLOD Werkstoff GmbH & Co.KG, Germany)
Tue 11:40	Polymeric biocomposites reinforced with microcrystalline cellulose recovered from agave bagasse: an alternative for the elaboration of materials for the automotive industry <u>Munguia-Aguilar Dendera</u> (IPICYT, Mexico), <u>Alatrste-Mondragon Felipe, Escobar-Barrios Vladimir A.</u>		From PP Waste to High-Quality Products – Decontamination of the Material Throughout the Entire Recycling Process Chain Using State-of-the-Art Technologies <u>Czaker Sandra</u> (Competence Center CHASE, Austria), <u>Mager Moritz, Akhras Mohamad Hassan, Fischer Joerg</u>		CAUSES OF FAILURES IN A RETREADED TIRE - A COMPREHENSIVE-AND-EASY GUIDE <u>Mosquera Manuel Salvador</u> (Automundial, Colombia), <u>Mosquera Carlos Andrés</u>
Tue 12:00	Processability and properties of Spent Coffee Ground (SGG) and Cocoa Pod Husk (CPH) and Polypropylene Bionanocomposites <u>Rigail Cedeño Andrés Francisco</u> (ESPOL, Ecuador), <u>Menendez Alanis, Coello Melani, Suarez Loor Jose Antonio, Lazo Miriam, Adrian Estephany</u>		Distinguished Keynote: Circular Economy and the Single Use Plastic Discourse <u>Bart Van Hoof</u> (Universidad de los Andes, Colombia)		Acidic-Stabilized Natural Rubber Latex: Characterization & Processes <u>Arroyave Miranda Hector Andres</u> (University of Wisconsin, USA)
Tue 12:20	Preparation of polymer-clay hybrid materials for drug delivery processes. <u>Manero Octavio</u> (National Autonomous University of Mexico, Mexico)				Keynote: Correlation between Manufacturing Conditions, Crosslink Density and Fatigue Behavior in Nitrile Butadiene Rubber <u>Gehling Tobias</u> (Polymer Competence Center Leoben, Austria)
Tue 12:40					
Lunch					
Tue 14:20 Tue 15:00	Plenary: Tailoring the Structure and Properties of Isodimorphic Random Copolymers by Varying Chemical Structure and Composition (Room Bolivar - Orbia) <u>Alejandro J. Müller</u> (Faculty of Chemistry, UPV/EHU, Spain) Session Chair: <u>Petr Saha, Tomas Bata University in Zlin, Czech Republic</u>				
Break					
	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: <u>Carolina Muñoz, Universidad de los Andes, Colombia</u>		CIRCULAR ECONOMY OF POLYMERS Session Chair: <u>Rudine Florio, Maastricht University, Netherlands</u>		NANOTECHNOLOGY & NANOCOSMOSITES Session Chair: <u>Ica Manas, Case Western Reserve University, USA</u>
Tue 15:10	Keynote: Multiscale Structural Characterization of Biocompatible Poly(trimethylene carbonate) Photoreticulated Networks – From Conception to Mechanical Behavior <u>Rios de Anda Agustin</u> (Université Paris Est Créteil, France), <u>van Bochove Bas, Spolajric Steve, Seppälä Jukka, Sotta Paul</u>		Keynote: Recyclates for sustainable food contact-method development for the validation of plasma-induced barriers <u>Catin Ali</u> (Institute for plastics processing ivk in industry and craft at RWTH Aachen, Germany), <u>Dahlmann Rainer</u>		Keynote: Recipe Development and Cast Film Extrusion of PVDF/Carbon Nanotube/Carbon Black Composites for the Application in Bipolar Batteries <u>Pötschke Petra</u> (Leibniz-Institut für Polymerforschung Dresden, Germany), <u>Krause Beate, Kunz Karina, Kühnert Ines</u>
Tue 15:40	Synthesis of pullulan derivatives for the coating and postharvest preservation of blueberries <u>Hernandez-Tenorio Fabian</u> (Universidad EAFIT, Colombia), <u>Mejía-Rúa Mateo, Bedoya-Jaramillo Valeria, Marín-Palacio Luz Deisy, Giraldo-Estrada Catalina</u>		Mechanical Recycling of Bulk Moulding Compound: a Technical and Environmental Assessment <u>Salvi Alessandro</u> (Politecnico di Milan, Italy), <u>Ostrowska Marlena, Dotelli Giovanni</u>		Improving SWCNT dispersion in aprotic solvent via ordered non-covalent polymer wrapping and co-solvents <u>Arias-Monje Pedro J.</u> (University of Texas Permian Basin, USA), <u>Kumar Satish</u>
Tue 16:00	Characterization of oil palm biomass, derived materials, and applications <u>NORIEGA E. Maria del Pilar</u> (Daabon Group, Colombia), <u>Teran Heidi, Giraldo Diana, Chiappo Carlo, Chejne Janna Farid</u>		Enhancing chemical recycling of PET waste using a biopolymer-based heterogeneous catalyst <u>Ponce Sebastián</u> (Universidad San Francisco de Quito, Ecuador)		Femtosecond Laser Engineering of Polymers: Transforming the Microfluidic Medical Device Industry <u>Bishayee Chayan</u> (Micronit B.V, Netherlands)
Tue 16:20					
Tue 18:10					
Tue 18:30					
Tue 19:30	POSTER SESSION II - Uniandes Caribe - Poster Awards Sponsored by CAS				

Tuesday 21				
Tue 8:30 Tue 9:10	Plenary: Environmentally Safe Preservation, Stabilization and Processing of Natural Rubber Latex in an Acid Environment (Room Bolivar - Orbia) <u>Tim A. Osswald</u> (University of Wisconsin Madison, USA) Session Chair: <u>Jairo Ernesto Perilla</u> , Universidad Nacional de Colombia, Colombia			
Tue 9:10 Tue 9:40	Industrial Keynote: A review of how PVC contributes to sustainability (Room Bolivar - Orbia) Cleinst Cabrerá (Orbia, Colombia) Session Chair: <u>Jairo Ernesto Perilla</u> , Universidad Nacional de Colombia, Colombia			
Break	Room Guacamayo - Plastilene		Room Bolivar - TA Instruments	
Morning session	ADDITIVE MANUFACTURING (3D PRINTING) Session Chair: <u>Niyireth Alicia Porras</u> , Universidad de los Andes, Colombia	Morning session	FIBERS & FILMS Session Chair: <u>Rudolf Hufenus</u> , Empa, Switzerland	Morning session
Tue 9:50	Keynote: 3D Printable Advanced Composites with Energy and Biomedical Applications <u>SONG KENAN</u> (UGA, USA), Ravichandran Dhameedar, Zhu Yuxiang, Patil Danush, Thippanna Varunkumar, Ramanathan Arunachalam, Thummalapali Sri Vaishnavi, Fonseca Nathan	Tue 9:50	Keynote: Interdiffusion of PLLA and PDLA to form fibers consisting of highly oriented stereocomplex crystals <u>Kikutani Takleshi</u> (Tokyo Institute of Technology, Japan)	Tue 9:50
Tue 10:20	Multimaterial Printing of Thermoplastics in Combination with Fully Compounded Thermoset Elastomers <u>Diaz Armas Nathalia</u> (University of Massachusetts Lowell, USA), Patel Preet, Kazmer David, Mead Joey	Tue 10:20	Characterization of Multivalent Alginate Fibers <u>Puchalski Adam</u> (Clemson MSE, USA), Kornev Konstantin G	Tue 10:20
Tue 10:40		Tue 10:40		Tue 10:40
Coffee Break				
Afternoon session	ADDITIVE MANUFACTURING (3D PRINTING) Session Chair: <u>Sadhan Jana</u> , University of Akron, USA	Afternoon session	FIBERS & FILMS Session Chair: <u>Takeshi Kikutani</u> , Tokyo Institute of Technology, Japan	Afternoon session
Tue 11:00	3D printing of syntactic thermoset foams via frontal polymerization <u>Yourdkhani Mostafa</u> (Colorado State University, USA), Masoumpour Alireza	Tue 11:00	Polyketone-Polypropylene Core-Shell Fibers for Concrete Reinforcement <u>Herz Jonas</u> (Rosenheim Technical University of Applied Sciences, Germany), Hefenbrock Sophia, Lorenz Katharina, Muscat Dirk, Strübbe Nicole	Tue 11:00
Tue 11:20	3D printing of food gels: A novel vegetable-based bio-ink <u>Grizzuti Nino</u> (University of Naples Federico II, Italy), Russo Spena Simona, Visone Biagio	Tue 11:20	Improving the gas barrier properties of polyvinyl alcohol using oppositely charge nanoparticles <u>Vatasever Emre</u> (Polytechnique Montréal, Canada), Aji Abdullah, Saffar Amir	Tue 11:20
Tue 11:40	Enhancing Biofabrication with Magnetic Fields: Advancing 3D Bioprinting through Multiphysics Simulations <u>Rodríguez Cristian F.</u> (Universidad de los Andes, Colombia), Quezada Valentina, Guzman-Satoque Paula, Reyes Luis H., Osma Johan F., Muñoz-Camargo Carolina, Cruz Juan C.	Tue 11:40	Multifunctional Flexible Sensors with 3D Fiber Network for Rapid Humidity Response and Long-Term Respiratory Monitoring <u>Wu Lan Lan</u> (Sichuan University, China), Li Jiang	Tue 11:40
Tue 12:00	Advancing 3D Printing: Enhancing Speeds and Strength through Rotating Nozzle FFF Technology <u>Román Allen Jonathan</u> (University of Wisconsin-Madison, USA), Blanco Campos Juan Camilo, Rudolph Natalie, Osswald Tim A.	Tue 12:00	DEVELOPMENT OF ANTIMICROBIAL FILMS FOR FOOD PACKAGING USING MELT COMPOUNDING TECHNIQUE <u>Ajji Abdullah</u> (Polytechnique montreal, Canada), Ajji Abdullah	Tue 12:00
Tue 12:20	Foam Additive Manufacturing <u>Detry Andrea Lorenzo Henri Sergio</u> (University of Naples Federico II, Italy), Landolfi Luca, Tammaro Daniele, Villone Massimiliano M., Squillace Antonino, Maffettone Pier Luca	Tue 12:20	Keynote: Melt-spun liquid-core filaments for microhydraulic applications <u>Hufenus Rudolf</u> (Empa, Switzerland)	Tue 12:20
Tue 12:40		Tue 12:40		Tue 12:40
Lunch				
Tue 14:20 Tue 15:00	Plenary: Tailoring the Structure and Properties of Isodimorphic Random Copolymers by Varying Chemical Structure and Composition (Room Bolivar - Orbia) <u>Alejandro J. Müller</u> (Faculty of Chemistry, UPV/EHU, Spain) Session Chair: <u>Petr Saha</u> , Tomas Bata University in Zlín, Czech Republic			
Break				
	ADDITIVE MANUFACTURING (3D PRINTING) Session Chair: <u>Miguel Garzón</u> , PM Tec Servicios de Ingeniería SAS, Colombia		FIBERS & FILMS Session Chair: <u>Chul B Park</u> , University of Toronto, Canada	
Tue 15:10	Keynote: A study of the use of dry natural rubber in 3D printing <u>Perilla Jairo E.</u> (Universidad Nacional de Colombia, Colombia), Osswald Tim A.	Tue 15:10	Keynote: Layer Multiplying Co-extrusion of Filled Polymer Composites <u>Maia Joao</u> (Case Western Reserve University, USA), Steinmetz Erik	Tue 15:10
Tue 15:40	Interfacial bond strength of hard-soft material combinations in extrusion based additive manufacturing <u>Schoene Erik</u> (Leibniz-Institut für Polymerforschung Dresden, Germany), Hoenel David, Kuehnert Ines	Tue 15:40	Effect of ionizing irradiation on PLA- fiber properties <u>Müller Michael Thomas</u> (Leibniz-Institut für Polymerforschung Dresden, Germany), Zhang Yinglang	Tue 15:40
Tue 16:00	Microstructure in Laser-Based Powder Bed Fusion of Polymers <u>Cholewa Simon</u> (Collaborative Research Center 814, Germany)	Tue 16:00	Investigation of Performance Metrics for Meals, Ready-to-Eat (MRE) Ration Packaging towards Sustainable Packaging Options <u>Candlen Kerry</u> (University of Massachusetts Lowell, USA), Tripathi Sandeep, Haque Md. Akiful, Froio-Blumsack Danielle, Ratto Jo Ann, Peterson Amy, Chen Wan-Ting	
Tue 16:20 Tue 18:10	SAN FELIPE CASTLE TOUR			
Tue 18:30 Tue 19:30	POSTER SESSION II - Uniandes Caribe - Poster Awards Sponsored by CAS			

Wednesday 22					
Wed 8:30 Wed 9:10	Plenary: Plastics - the invisible heroes of the hydrogen revolution (Room Bolivar - Taghleef Industries) <u>Christian Hopmann</u> (Institute for Plastics Processing in Industry and Crafts, RWTH Aachen University , Germany) Session Chair: <u>Martin Spörk</u> , Research Center Pharmaceutical Engineering GmbH, Austria				
Wed 9:10 Wed 9:40	Industrial Keynote: Sustainability Path at Taghleef Industries. (Room Bolivar - Taghleef Industries) <u>Carlos Rodriguez Giraldo</u> (Taghleef Industries, Colombia)Session Chair: <u>Martin Spörk</u> , Research Center Pharmaceutical Engineering GmbH, Austria				
Break	Bolivar Room - Taghleef Industries		Room Cartagena - Daabon		Room Bolivar - Xplore
Morning session	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: <u>Mighri Frej</u> , Laval University, Canada	Morning session	CIRCULAR ECONOMY OF POLYMERS Session Chair: <u>Corella Elena</u> , Dayrize BV, Netherlands	Morning session	NANOTECHNOLOGY & NANOCOSMOSITES Session Chair: <u>Hait Sakrit</u> , University of Calgary, Canada
Wed 9:50	Keynote: A Novel Foaming Technique to Develop Solvent-Free Functional open-cell PLA Scaffolds for Bone Tissue Regeneration <u>Mighri Frej</u> (Laval University, Canada), Osman Miada Abubaker, Rouabhia Mahmoud, Virgilio Nick	Wed 9:50	Industrial Keynote: Development of flexible packaging with PCR resins - Ciclolene® as a contribution to the circular economy of plastics in the region <u>Garcia Yohana</u> (Grupo Plastilene, Colombia)	Wed 9:50	Keynote: Tailoring the Hierarchical Self-Assembly in Bioinspired Halloysite Nanotubes/Glass Fiber Hybrid Composites <u>Aguiar Rafaela</u> (University of Toronto, Canada), Sansone Nello D, Cheung Nichole, Tuccitto Anthony V., Lee Patrick C.
Wed 10:20	Energy Storage Based on Biopolymers <u>Saha Petr</u> (Tomas Bata University in Zlin, Czech Republic), Saha Tomas, Stejskal Jaroslav, Bubulinca Constantin, Orinakova Renata, Fei Haojie, oseph Nikhitha	Wed 10:20	Advancing Circularity and Sustainability for Rotational Moulding <u>Kelly-Walley Jake</u> (Queens University Belfast, United Kingdom), Martin Peter	Wed 10:20	Effect of graphene particle size on the electrical conductivity and the morphology of immiscible polymer blends <u>Helal Emna</u> (ÉTS, Canada), Genoyer Julie, Swain Mitasha, Demarquette Nicole Raymonde
Wed 10:40	Coffe Break				
Afternoon session	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: <u>Joung Sook Hong</u> , Seoul National University	Afternoon session	CIRCULAR ECONOMY OF POLYMERS Session Chair: <u>Hathaikarn Manuspiya</u> , Chulalongkorn University, Thailand	Afternoon session	NANOTECHNOLOGY & NANOCOSMOSITES Session Chair: <u>Luyi Sun</u> , University of Connecticut, USA
Wed 11:00	Synthesis and Characterization of Bio-Based Polymer Composites Using PLA and Agro-industrial Residues for Food Packaging Products <u>Gamiz-Conde Alexa K</u> (Tecnologico de Monterrey, Mexico), Burelo Manuel, Franco-Urquiza Edgar A., Treviño-Quintanilla Cecilia D.	Wed 11:00	Advancing Plastics Identification and Quantification in Industrial Recycling with DSC <u>Mesquita Joao</u> (NETZSCH, USA), Redmann Alec, Rudolph Natalie, Schindler Alexander	Wed 11:00	Strong, tough, and transparent poly(methyl methacrylate) composites incorporating thermoplastic polyester/polyamide/polyurethane elastomer nanofibrils <u>Rahman Saadman Sakib</u> (University of Toronto, Canada), Mahmud Mayesha Binte, Salehi Amirmehdi, Lee Patrick C, Park Chul B
Wed 11:20	Biopolymer composites for plant nutrition in aquatic environments <u>Duarte Fernando Moura</u> (University of minho, Portugal) Machado Ana Catarina, Castro Maria Cidália, Carneiro Liliana	Wed 11:20	PLA-based Bioplastics for a Circular Plastic Economy: Advantages and Challenges <u>Ray Suprakas Sinha</u> (CSIR and University of Johannesburg, South Africa)	Wed 11:20	Layered double hydroxide – a versatile structure for designing function integrated materials <u>Leuteritz Andreas</u> (Leibniz-Institut fuer Polymerforschung Dresden, Germany)
Wed 11:40	Don't waste food waste: Materializing (macro)molecules and bioalloids from agricultural side-streams <u>Otoni Caio Gomide</u> (DEMa UFSCar, Brazil)	Wed 11:40	The influence of composition on the characteristics of mechanically recycled polyolefins <u>Fiorio Rudinei</u> (Maastricht University, Netherlands), Khaki Amir, Ebrahimi Ali, Ragaert Kim	Wed 11:40	Bio-inspired Hierarchical Hybrid Composites for High-Performance Structural Applications+ <u>Lee Patrick C.</u> (University of Toronto, Canada), Aguiar Rafaela, Sansone Nello D., Cheung Nichole, Tuccitto Anthony V.
Wed 12:00	Development of Biodegradable Composite from Plantain Starch Reinforced with Plant Fiber for Potential Use in the Packaging Industry for Potential Use in the Packaging Industry <u>Leyton Coneo Alexander</u> (Universidad Tecnológica de Bolívar, Colombia), Arias Tapia Mary, Porras Alicia	Wed 12:00	Graphene Synthesis through Recycling Lithium-Ion Battery Waste Polymers via CO2 laser <u>Farzana Sumaiya</u> (University of Toronto, Canada), Aguiar Rafaela Antunes Costa, Tuccitto Anthony, Lee Jun-Uk, Lee Patrick C.	Wed 12:00	Tri-layered Hybrid Composites for Structural Thermal Management Applications <u>Sansone Nello D.</u> (University of Toronto, Canada), Aguiar Rafaela, Cheung Nichole, Tuccitto Anthony V., Lee Patrick C.
Wed 12:20	Keynote: Fabrication and characterization of Biobased Polyurethanes, from Cradle to Cradle <u>Averous Luc</u> (University of Strasbourg, France)	Wed 12:20	Keynote: What LCA can tell us about the impacts of microplastics <u>Corella Elena</u> (Dayrize BV, Netherlands)	Wed 12:20	Keynote: Graphitized GNP: A New Carbon Material with Excellent Electrical Conductivity and Outstanding EMI Shielding <u>Hait Sakrit</u> (University of Calgary, Canada), Ali Mohammed, Rasouli Maryam, Sundararaj Uttandaraman
Wed 12:50	Lunch				
Wed 14:20 Wed 15:00	Plenary: Sustainable Polymer for a Circular Economy (Room Bolivar - Taghleef Industries) <u>Manjusri Misra</u> (University of Guelph, Canada) Session Chair: <u>María del Pilar Noriega</u> , Daabon Group, Colombia				
Break	Bolivar Room - Taghleef Industries		Room Cartagena - Daabon		Room Bolivar - Xplore
	BIOPOLYMERS, BIOCOSMOSITES & BIOPROCESSING Session Chair: <u>Luc Averous</u> , University of Strasbourg, France		CIRCULAR ECONOMY OF POLYMERS Session Chair: <u>Aguiar Rafaela</u> , University of Toronto, Canada		NANOTECHNOLOGY & NANOCOSMOSITES Session Chair: <u>Cakmak Miko</u> , Purdue University, USA
Wed 15:10	Keynote: Biochar, production, and use: a detailed review of the Art <u>Chejne Janna Farid</u> (Universidad Nacional de Colombia; Colombia), Sierra Jimenez Valentina, Cordoba Marton, Garcia Perez Manuel, Noriega Escobar Maria del Pilar	Wed 15:10	Keynote: How much virgin fuel displacement can an complimentary recycling cascade achieve? <u>Ragaert Kim</u> (Maastricht University, Netherlands)	Wed 15:10	Industrial Keynote: Towards versatility of POSS nanoparticles in thermoplastic compounds <u>Ozkoc Guralp</u> (Xplore Instruments BV, Netherlands), Kodali Mehmet
Wed 15:40	Supramolecular, reversible, and biodegradable polymers between carboxymethylcellulose and N-nitrophenylmaleimide isomers <u>Giraldo Salinas Niyred Camila</u> (Universidad Tecnológica de Pereira, Colombia), Vasques G. Jefferson, Montoya G. Maribel, Cortes H. Hector Fabio	Wed 15:40	A transdisciplinary approach to solving some of New Zealand's plastic waste problems <u>Verbeek Johan</u> (University of Auckland, New Zealand), Bickerton Simon, Fehrer Julia, Polson Deb, Pitto Maximillan, Bertin Maicon, Ashraf Jesna	Wed 15:40	Electrospun polycaprolactone scaffolds for nerve guidance conduits <u>Toledo Anna Lecticia</u> (Institute of Macromolecules Professor Eloisa Mano, Brazil), Prins Caio Andrade, Pestana Fenanda, Martinez Ana Maria, Dias Marcos Lopes
Wed 16:00	Influence of Additive Manufacturing Techniques and Polymer Blends in Chondrogenesis: A Study of Multilayer Scaffold based on PLA-CMC in Human Mesenchymal Stem Cells <u>Sánchez Vega Giovanni Alfredo</u> (Instituto Potosino de Investigación Científica y Tecnológica A.C., Mexico), Alcántara Quintanilla Luz Eugenia, Escobar Barrios Vladimir Alonso	Wed 16:00	Performance of post-consumer recycled polyolefins in rotational molding process <u>Martins Carla L</u> (University of Minho, Portugal), Ribeiro Maria, Pereira Camila, Cruz Diogo, Silva Luis F.S., Pereira Nuno M	Wed 16:00	Influence of Thermomechanical Conditions in Twin-Screw Extrusion and Injection Molding on the Morphology of Crystalline Nanocellulose and Polypropylene Composites. <u>Carvalho Benjamim de Melo</u> (State University of Ponta Grossa, Brazil), Ribeiro Kairin Cristine, Covas José António Colaço Gomes
Wed 16:20	New Degassing Technology for Single Screw Extruders – Experimental Results <u>Ponzielli Giuseppe</u> (Nexus Channel, Italy), Rauwendaal Chris, Florez Laura, Ospina Silvio, Coronado Juan, Estrada Omar	Wed 16:20	Effect of Jatropha Curcas Oil on Thermorheological Proprieties of Asphalt Binder Modified with recycled HDPE <u>Mujambo Herminio Francisco</u> (Eduardo Mondlane University, Mozambique), Machute Ana Margarida, Tamele Jr Lucas Filipe, Manhique Arao Joao, Machecha Afonso Daniel	Wed 16:20	Metal Nanoparticles on Flexible Polyurethane Sponges: A Hydrothermal Route towards Catalysts for Lab-Scale and Continuous Flow Automation <u>Gazil Olivier</u> (Polytechnique Montréal, Canada), Pazdzior Robert, Virgilio Nick, Unterlass Miriam M.
Wed 16:40		Wed 16:40		Wed 16:40	

Coffee Break					
	<p align="center">EXTRUSION</p> <p>Session Chair: Sevastiao Canevevarolo, Federal University of São Carlos, Brazil</p>		<p align="center">CIRCULAR ECONOMY OF POLYMERS</p> <p>Session Chair: Laura Florez, ICIPC, Colombia</p>	<p align="center">NANOTECHNOLOGY & NANOCOMPOSITES</p> <p>Session Chair: Shmuel Kenig, Shenkar College of Engineering, Design and Art, Israel</p>	
Wed 17:00	<p>Distinguished Keynote: Extrusion Theory Today and Challenges for Tomorrow <u>Chris Rauwendaal</u> (Rauwendaal Extrusion Engineering, USA)</p>	Wed 17:00	<p>Keynote: Unlocking the Potential of Recycled Polypropylene in Food Packaging <u>Krempf Nina</u> (Montanuniversitaet Leoben, Austria), <u>Holzer Clemens</u>, <u>Pinter Elisabeth</u>, <u>Archoudoulaki Vasiliki-Maria</u>, <u>Bichler Lorenz</u></p>	Wed 17:00	<p>Keynote: Smart Hybrids with Multi-scale Architecture and Surface Engineering Enabled by Nanocoatings <u>Sun Luyi</u> (University of Connecticut, USA)</p>
Wed 17:30	<p>Novel intrinsic extrusion process for the production of aluminum-polymer-composites <u>Henn Enno</u> (Leibniz Institute of Polymer Research Dresden, Germany), <u>Kotzyba Patrick</u>, <u>Zschech Carsten</u>, <u>Gebhard Johannes</u>, <u>Kühnert Ines</u>, <u>Korkolis Yannis</u>, <u>Stommel Markus</u>, <u>Tekkaya Erman</u></p>	Wed 17:30	<p>Mechanical recycling of multilayer plastics (MLP) from flexible food packaging <u>Hernández Rubio Yael Alin</u> (Tec de Monterrey, Mexico), <u>Figueroa Lopez Ulises</u>, <u>Guevara Morales Andrea</u></p>	Wed 17:30	<p>Bacterial Cellulose: Discovering the Potential for Advanced Sustainable Materials <u>Manuspiya Hathaikarn</u> (Chulalongkorn University, Thailand)</p>
Wed 17:50	<p>Improving the Layer Uniformity of Multilayered Films Produced with Interfacial Surface Generators <u>Carneiro Olga S.</u> (University of Minho, Portugal), <u>Martins Marcelo M</u>, <u>Javadi Sara</u>, <u>Covas José A</u>, <u>Nóbrega João M</u></p>	Wed 17:50	<p>Extrusion Pretreatment of Polyesters for Efficient Recycling Via Enzymatic Deconstruction <u>Sobkowicz Margaret J.</u> (UMass Lowell, USA), <u>Patel Akanksha</u>, <u>Chang Allen</u>, <u>Xie Dongming</u>, <u>Wong Hsi-Wu</u></p>	Wed 17:50	<p>Development of food packaging films able to be recycled <u>Machado Ana Vera</u> (University of Minho, Portugal), <u>Barros Carolina</u>, <u>Carneiro Olga</u></p>
Wed 18:10	<p>Influence of processing methods on the crack resistance of a polypropylene/recyclate blend <u>Pinter Gerald</u> (Montanuniversitaet Leoben, Austria), <u>Hinczica Jessica</u>, <u>Messiha Mario</u>, <u>Arbeiter Florian</u></p>	Wed 18:10	<p>Global Treaty Negotiations on Plastic Pollution <u>Sanchez Rippe, Jonathan David</u> (WWF, Colombia)</p>	Wed 18:10	<p>Morphology Evolution Under a Controlled Flow of Polystyrene/Polypropylene/Few Layers Graphene Nanocomposites <u>Strugova Daria</u> (École de technologie supérieure, Canada), <u>Essadoulou Hind</u>, <u>Helal Emna</u>, <u>Gutierrez Giovanna</u>, <u>Moghimian Nima</u>, <u>David Eric</u>, <u>Demarquette Nicole R.</u></p>
Wed 18:30	<p>Improved melt-mixing in single-screw extrusion by geometry modification based on mixing mechanism <u>Nakayama Yasuya</u> (Kyushu University, Japan), <u>Fujihara Taishi</u>, <u>Kimura Koichi</u>, <u>Kajiwara Toshihisa</u></p>	Wed 18:30	<p>Targeting recyclability in cross-linked bio-based polyurethanes through thermoreversible bonds <u>Restrepo Montoya Ana Cristina</u> (University of the Basque Country, Spain), <u>Larraza Izaskun</u>, <u>Gonzalez Kizkitza</u>, <u>Saralegi Ainara</u>, <u>Eceiza Arantxa</u></p>	Wed 18:30	<p>Enhanced electromagnetic interference shielding performance of reduced titanium carbonitride MXenes incorporated into porous polymer structures <u>Rahmati Reza</u> (University of Toronto, Canada), <u>Ashouri-Sanjani Mehran</u>, <u>Salari Meysam</u>, <u>Salehi Amirmehdi</u>, <u>Hamidinejad Mahdi</u>, <u>Park Chul Bum</u></p>
Wed 18:50	BANQUET -Awards Ceremony - Future PPS meetings				
Wed 20:00					
Wed 24:00					

Wednesday 22					
Wed 8:30 Wed 9:10	Plenary: Plastics - the invisible heroes of the hydrogen revolution(Room Bolivar - Taghleef Industries) <u>Christian Hopmann</u> (Institute for Plastics Processing in Industry and Crafts, RWTH Aachen University , Germany) Session Chair: Martin Spörk, Research Center Pharmaceutical Engineering GmbH, Austria				
Wed 9:10 Wed 9:40	Industrial Keynote: Sustainability Path at Taghleef Industries. (Room Bolivar - Taghleef Industries) <u>Carlos Rodriguez Giraldo</u> (Taghleef Industries, Colombia) Session Chair: Martin Spörk, Research Center Pharmaceutical Engineering GmbH, Austria				
Break	Room Guacamayo - Plastilene		Room Bolivar - TA Instruments		Room NETZSCH
Morning session	ADDITIVE MANUFACTURING (3D PRINTING) Session Chair: Song Kenan, UGA, USA	Morning session	POLYMERIZATION & SYNTHESIS Session Chair: Sierra Avila Cesar Augusto, Universidad Nacional de Colombia, Colombia	Morning session	POLYMER COMPOSITES Session Chair: Johan Verbeek, University of Auckland , New Zeland
Wed 9:50	Keynote: Eliminating non-negativity constraint from Tomographic Volumetric 3D Printing by a novel a binary photoinhibitory system <u>Islam Aminul</u> (Technical University of Denmark, Denmark)	Wed 9:50	Industrial Keynote: Integrated Rheometer-Raman Monitoring: Unraveling Crystallization and Polymerization Dynamics of Polymers <u>Zagorec Viktor</u> (Anton Paar, Germany)	Wed 9:50	Keynote: Braided Composite System With Haptic Feedback for Teleoperation <u>Diaz Armas Nathalia</u> (University of Massachusetts Lowell, USA), <u>Mead Joey, Thakur Shilpa, Onal Cagdas, Rao Pratap, Zhang Jinde</u>
Wed 10:20		Wed 10:20	Thermal and mechanical behavior of biobased vitrimer of epoxidized vegetal oil and lactic acid-based oligomers DIAS MARCOS LOPES (UNIVERSIDADE FEDERAL DO RIO DE JANEIRO, Brazil), RODRIGUES JOÃO GABRIEL PASSOS	Wed 10:20	High performance recycled CFRP composites based on reused carbon fabrics through mild solvolysis route <u>Balout Wael</u> (UCLouvain, Belgium)
Wed 10:40		Wed 10:40		Wed 10:40	
Coffe Break					
Afternoon session	ADDITIVE MANUFACTURING (3D PRINTING) Session Chair: Ines Kühnert, Leibniz-Institut fuer Polymerforschung Dresden, Germany	Afternoon session	POLYMERIZATION AND SYNTHESIS Session Chair: Clemens Holzer, Montanuniversitaet Leoben, Austria	Afternoon session	POLYMER COMPOSITES Session Chair: Oscar Alvarez, Universidad de los Andes, Colombia
Wed 11:00	Developing polypropylene for extrusion-based 3D printing <u>Schmidt Hans-Werner</u> (University of Bayreuth, Germany)	Wed 11:00	SYNTHESIS OF PROTON EXCHANGE MEMBRANES FROM STYRENE-ACRYLIC ESTER AND CHITOSAN FOR FUEL CELL <u>Mendoza Beltrán Dina</u> (Universidad de Cartagena, Colombia), <u>Realpe Jiménez Alvaro, Acevedo Morantes María Teresa</u>	Wed 11:00	Hybrid Twin for manufacturing thermoplastic composite wound parts <u>BARASINSKI Anaïs</u> (UPPA, France), <u>GHNATIOS Chady</u>
Wed 11:20	Polyolefin Aerogels from Wastes: 3D Printing-Assisted Fabrication of Filter Media <u>Jana Sadhan C.</u> (The University of Akron, USA), <u>Wu Leyao, Ghosh Moni</u>	Wed 11:20	Incorporation of aminoalcohols to tune the properties of polyurethane sytems <u>Adam Alexandre</u> (University of Strasbourg , France), <u>Rezaiguia Saadane, Severac Romain, Bouquey Michel</u>	Wed 11:20	High performance sustainable biopolymers and their composites based on CNCs. Structure- rheology- forming and properties relationships. <u>MAAZOUZ ABDERRAHIM</u> (INSA Lyon, France), <u>QIAO HU, lamnawar khalid</u>
Wed 11:40	Role of different ABS matrixes and processes for multifunctional ABS/CNT nanocomposites <u>Pessan Luiz Antonio</u> (Federal University of Sao Carlos, Brazil), <u>Ribeiro dos Anjos Erick Gabriel, Rodrigues Brazil Tayra, Passador Fabio Roberto</u>	Wed 11:40	Dispersion and distribution of additives in polyhydroxybutyrate (PHB)-polylactic acid (PLA) films as a replacement for polyethylene in agroindustry <u>Sierra Avila Cesar Augusto</u> (Universidad Nacional de Colombia, Colombia), <u>Castellanos D., Bello J., Posada N., Herrera K.</u>	Wed 11:40	Double-layered wood-plastic composites made of recycled polyethylene and capirona wood particles recovered from scrap processed by rotational molding <u>Acosta-Sullcahuamán Julio</u> (Pontificia Universidad Catolica del Peru, Peru), <u>Arribasplata-Seguín Adan, Matias-Caytuero Renzo,</u>
Wed 12:00	Screw-based Material Extrusion Additive Manufacturing of Inflatables Using Ultra Soft Thermoplastic Elastomer <u>Curmi Albert</u> (University of Malta, Malta), <u>Rochman Arif</u>	Wed 12:00	Synthesis of orderly packed nanofibrous membranes with thermo- and pH-responsive behavior <u>Fouadzi Reza</u> (University of Oklahoma, USA), <u>Saadat Younes, Kim Kyungtae</u>	Wed 12:00	Wood-plastic composites processed by rotational molding: a relationship between properties and peak internal air temperature <u>Arribasplata-Seguín Adan</u> (Pontificia Universidad Catolica del Peru, Peru), <u>Quispe-Dominguez Roger, Vitcavauri-Rios Ademir, Acosta-Epoxy Biocomposites Reinforced with Hemp and Figue Fibers: Thermal and Viscoelastic Performance for Sustainable Applications in the Aerospace Industry <u>Hidalgo-Salazar Miguel Angel</u> (Universidad Autónoma de Occidente, Colombia), <u>Correa-Aguirre Juan Pablo, Ritt Stefan</u> </u>
Wed 12:20	3D printability criteria for the elaboration of microwaves absorbers <u>Le Saos-Kauten Arnaud</u> (UBO - IRDL UMR, France), <u>Laur Vincent, Chevalier Alexis, Maalouf Azar, Ville Julien, Roquefort Philippe, Aubry Thierry</u>	Wed 12:20		Wed 12:20	
Lunch					
Wed 14:20 Wed 15:00	Plenary: Sustainable Polymer for a Circular Economy (Room Bolivar - Taghleef Industries) <u>Manjuri Misra</u> (University of Guelph, Canada) Session Chair: María del Pilar Noriega, Daabon Group, Colombia				
Break	Room Guacamayo - Plastilene		Room Bolivar - TA Instruments		Room NETZSCH
	ADDITIVE MANUFACTURING (3D PRINTING) Session Chair: Cyrille Boyer, University of New South Wales, Australia		DEGRADATION, BIODEGRADATION & COMPOSTING Session Chair: Bikiaris Dimitrios N, Aristotle University of Thessaloniki, Greece		POLYMER COMPOSITES Session Chair: Abderrahim Maazouz, INSA Lyon, France
Wed 15:10	Keynote: Multifunctional 3D-Printed Cellulosic Constructs via a Sequential Cold Chemical Vapor Polymerization Technique <u>Amini Majed</u> (University of British Columbia, Canada)	Wed 15:10	Distinguished Keynote: State of the Art and the Vision of the Future of Polymer Degradation <u>Fayolle Bruno</u> (ENSAM, France)	Wed 15:10	Keynote: Functionally Graded Materials: Innovative Multilayer composites based on Poly(D,L lactide)/Bioactive Fillers fabricated by 3D Direct Pellet Printing multi Extrusion process <u>Lamnawar Khalid</u> (INSA Lyon, France), <u>Lacambra Andreu Xavier, Chenal Jean Marc , Maazouz Abderrahim</u>
Wed 15:40	Additive manufacturing of dynamic covalent polymer networks into self-healing soft robotic grippers <u>Brancart Joost</u> (Vrije Universiteit Brussel), <u>Furia Francesca, Steenackers Niklas, Roels Ellen</u>	Wed 15:40	TGA derived activation energy and status of degradation for plastic jacket pipes in district heating <u>Bernhardt Ricardo</u> (Leibniz-Institut fuer Polymerforschung Dresden, Germany), <u>Naseem Sajid , Hay Stefan, Below Heiko, Leuteritz Andreas</u>	Wed 15:40	Fiber orientation-induced strain hardening in uniaxial extensional flow of fiber-filled polymer composites <u>Anderson Patrick D.</u> (TU Eindhoven, Netherlands)
Wed 16:00	Electromagnetic Interference Shielding Aerogels based on 3D Printed Cellulosic Inks <u>Arimand Mohammad</u> (University of British Columbia, Canada), <u>Amini Majed, Hosseini Hadi, Kamkar Milad</u>	Wed 16:00	Enhanced degradation of multi layered PBAT-starch films in home and industrial composting environments <u>Kansara Harshal J</u> (Rochester Institute of Technology, USA), <u>Hernandez-Charak Yvan David , Putney Elias K, Putney Jr. Robert M, Lodge Jeffrey S, Trabold Thomas A, Diaz Carlos A</u>	Wed 16:00	Effect of Pigments on Laser Beam Transmission in Diode Laser Transmission Welding of Poly(propylene) <u>Tormey David</u> (Atlantic Technological University, Ireland)
Wed 16:20	Additive Manufacturing of Polymer Covalent Adaptable Networks <u>Xia Hesheng</u> (Sichuan University, China)	Wed 16:20		Wed 16:20	Characterization of local electrical properties of carbon fiber reinforced thermoplastic composites using a potential field method in terms of fiber orientation influenced by injection molding <u>Schlink André</u> (University of Kassel, Germany), <u>Hartung Michael, Eckel Elisabeth, Wiegel Klara, Heim Hans-Peter, Ayeb Mohamed</u>
Wed 16:40		Wed 16:40		Wed 16:40	

Coffee Break					
	<p align="center">INJECTION MOLDING</p> <p align="center">Session Chair: Roberto Pantani, University of Salerno, Italy</p>		<p align="center">DEGRADATION, BIODEGRADATION & COMPOSTING</p> <p align="center">Session Chair: Juan Carlos Cruz, Universidad de los Andes, Colombia</p>	<p align="center">MORPHOLOGY & STRUCTURAL DEVELOPMENT</p> <p align="center">Session Chair: Nino Grizzuti, University of Naples Federico II, Italy</p>	
Wed 17:00	<p>Keynote: Co-injection and foam injection molding as enablers for sustainability <u>Ruckdäschel Holger</u> (Neue Materialien Bayreuth GmbH, Germany), Krause Katharina</p>	Wed 17:00	<p>Keynote: Crystallization temperature as a proxy for fundamental degradation behavior of PBAT based plastic films in composting environments <u>Hernandez-Charpak Yvan David</u> (Rochester Institute of Technology, USA), Kansara Harshal Jayesh, Trabold Thomas Aquinas, Lodge Jeffery S, Lewis Christopher L, Diaz-Acosta Carlos Aurelio</p>	Wed 17:00	<p>Keynote: Study on the regulation of porous structure of ultra-thin ultra-high molecule weight polyethylene separation membranes through biaxial stretching <u>Wu Hong</u> (Sichuan university, China), Guo Yuhang</p>
Wed 17:30	<p>Injection moulding of multi-material TPU-ABS locally resonant metamaterials to combine vibration stopbands by increased damping capacity <u>Steijvers Kristof</u> (KU Leuven, Belgium), Govaerts Sean, Claeys Claus, Van Belle Lucas, Deckers Elke</p>	Wed 17:30	<p>Modelling Hydrolytic, Thermal, and Mechanical Degradation of PLA During Single-Screw Extrusion <u>Velghe Ineke</u> (KU Leuven, Belgium), Buffel Bart, Vandeginste Veerle, Thielemans Wim, Desplentere Frederik</p>	Wed 17:30	<p>Investigation of optical fiber properties and fiber segment interferometry in composite applications <u>Mohammadkarimi Shiva</u> (TU Ilmenau University, Germany)</p>
Wed 17:50	<p>Design of an injection mold with local displacement of heating coatings for warpage compensation <u>Zimmermann Christoph</u> (Institute for Plastic Processing, Germany), Hopmann Christian, Fritsche Daniel Colin, Bobzin Kirstin, Heinemann Hendrik, Erck Marvin, Lohrey Nicole</p>	Wed 17:50	<p>Upgrading recycled/oxidized ABS by multilayer coextrusion of PC/ABS blend <u>FAYOLLE BRUNO</u> (PIMM, France), Mackré-Delannoy Xavier, Gervais Matthieu, Sollogoub Cyrille</p>	Wed 17:50	<p>Flow-induced crystallization in micro-injection molding – Experiments and simulation with POM-H <u>Fischer Matthieu</u> (Leibniz-Institut für Polymerforschung Dresden, Germany), Saad Sandra, Cruz Camilo, Kuehnert Ines</p>
Wed 18:10	<p>Development and Performance Testing of a Novel Active Vacuum Venting System for Sustainable Injection Molding <u>Mifsud Sarah</u> (University of Malta, Malta), Rochman Arif, Refalo Paul</p>	Wed 18:10	<p>The use of chemiluminescence to assess the recyclability of polypropylene <u>Stam Rachel</u> (University of Maastricht, Netherlands), Gijsman Pieter, Ragaert Kim, Fiorio Rudinei</p>	Wed 18:10	<p>Polymeric Microwave Patch Resonator based on Doped PEDOT:PSS <u>Dordanihaghighi Marzieh</u> (University of British Columbia, Canada), Arjmand Mohammad, Zarifi Mohammad H.</p>
Wed 18:30	<p>Exploring Processability of Polyoxymethylene /Carbon Black Composites Through Low-Pressure Injection Moulding <u>Sadaf Mahrukh</u> (University of Ljubljana, Slovenia), Šobak Matic, Perše Lidija Slemenik</p>	Wed 18:30		Wed 18:30	<p>Tailoring Morphology of Polymer Composites from Multilayer Film Waste <u>Plevová Kateřina</u> (Montanuniversität Leoben, Austria)</p>
Wed 18:50 Wed 20:00 Wed 23:00	BANQUET -Awards Ceremony - Future PPS meetings				

Thursday 23						
Thu 8:30 Thu 9:10	Morand Lamba Award Plenary: Thermally Conductive Polymers and Their Composites (Room Bolivar - BASF I) <u>Junwei Gu</u> (School of Chemistry and Chemical Engineering, Northwestern Polytechnical University, China) Session Chair: Jose Antonio Covas, University of Minho, Portugal					
Thu 9:10 Thu 9:40	Industrial Keynote: New Opportunities for Polyamides (Room Bolivar - BASF I) <u>Philippe Desbois</u> (BASF, Germany) Session Chair: Jose Antonio Covas, University of Minho, Portugal					
Thu 9:40 Thu 10:20	James L. White Innovation Award Plenary: Innovative Processing, Structures and Properties of Porous Material and Foam Applications. (Room Bolivar - BASF I) <u>Chui B. Park</u> (Department of Mechanical & Industrial Engineering, University of Toronto, Canada) Session Chair: Jose Antonio Covas, University of Minho, Portugal					
Coffee Break	Bolivar Room - BASF I		Room Cartagena - Daabon		Room Bolivar - Xplore	
Morning session	EXTRUSION Session Chair: Chris Rauwendaal, Rauwendaal Extrusion Engineering, USA		CIRCULAR ECONOMY OF POLYMERS Session Chair: Suprakash Sinha Ray, University of Johannesburg, South Africa		NANOTECHNOLOGY & NANOCOMPOSITES Session Chair: Ozkoc Guralp, Xplore Instruments BV, Netherlands	
Thu 10:40	Keynote: Improving the thickness gradient in thermoformed parts by using sheets with non-uniform thickness <u>Covas Jose Antonio</u> (University of Minho, Portugal), Pequezeza Leonor, Duarte Fernando		Thu 10:40	Industrial Keynote: MICROPLASTICS:TACKLING THE INVISIBLE ENEMY <u>Gonzalez Monntiel Alfonso</u> (CAS, USA)	Thu 10:40	Keynote: Field Assisted "Z" orientation of Nanophases to Produce Thickness Functionalized films For Flexible Electronics using a New Roll to Roll manufacturing Platform <u>Cakmak, Miko</u> (Purdue University, USA)
Thu 11:10	Analytical Model of Melt Temperature Distribution in Single Screw Extruders <u>Rauwendaal Chris</u> (Rauwendaal Extrusion Engineering, USA), Abeykoon Chamil, Perera Yasith		Thu 11:10	An Investigation on The Effects of Post-industrial Glass Fiber Flakes on the Properties of Recycled Polypropylene <u>Raguz Ivan</u> (Montanuniversitaet Leoben, Austria), Shahrودي Zahra, Krempl Nina, Arbeiter Florian, Friesenbichler Walter, Holzer Clemens	Thu 11:10	Effect of Temperature on the Tensile Behavior of Polyamide 1010 Nanocomposites Reinforced by Different Two-dimensional Materials <u>Pinto Gabriel Matheus</u> (École de technologie supérieure, Canada), Helal Emma, Ribeiro Helio, David Eric, Demarquette Nicole Raymonde, Fehine Guilhermino José Macedo
Thu 11:30	Twin Screw Extruder Configurations to Process Bioplastics (PLA/PHA/PHB) Filled Formulations <u>Martin Charlie</u> (Leistritz Extrusion, USA)		Thu 11:30	Advancing Sustainable Practices in Food Packaging: Investigating Liquid State Decontamination of Post-Consumer Polystyrene Recyclate <u>Mittermayr David</u> (Johannes Kepler University, Austria), Fischer Jörg, Roland Wolfgang	Thu 11:30	In situ growth of ZIF-67 at PVDF nanofibers: influence of solvents on particle morphology <u>Melo Guilherme</u> (University of Calgary, Canada), Yuxin Liu, Sundararaj U.
Thu 11:50	Optimization of a Profile Extrusion Die using OptiXtrude Software <u>Gupta Mahesh</u> (Kennesaw State university, USA)		Thu 11:50	Navigating Recycling Technologies in Circular Product Development <u>Kakatkar Rucha</u> (Maastricht University, Netherlands), Soliman Maria, Florio Rudinei, Ragaert Kim	Thu 11:50	High-performance barrier coatings using a rotational coating method. <u>Shaw Montgomery</u> (University of Connecticut, USA), Hou Zaili, Chavez Sonia, Sun Luyi
Thu 12:10	Analysis of Spiral Mandrel Dies with Novel Channel Geometries to Draw Conclusions on the Purging Time of the Melt Using CFD <u>Vorjohann Felix</u> (University of Duisburg-Essen, Germany), Schiffers Reinhard		Thu 12:10	Navigating heterogeneous single-polymer waste streams: mechanical insights into recycling <u>Schlossnik Jessica</u> (Institute of Materials Science and Technology, Austria), Koch Thomas, Archodoulaki Vasiliki-Maria	Thu 12:10	Design of PLA-based nanocomposites with high barrier properties <u>Jullin Aurore</u> (Université Claude Bernard Lyon1, France), Hascoët Nicolas, Bounor-Legaré Veronique, Gouanvé Fabrice, Zinet Matthieu, Chinesta Francisco, Espuche Eliane
Thu 12:30	In Silico Process Design and Scale-up for an Amorphous Solid Dispersion Manufactured by Hot Melt Extrusion Spoerk Martin (Research Center Pharmaceutical Engineering GmbH, Austria), Matic Josip, Meyer Jonathan, Ambardekar Rohan, McAllister Mark, Pinto Mark, Doshi Pankaj, Khinast Johannes, Jajcevic Dalibor				Thu 12:30	Industrial uses of polymeric capsules made via microfluidics <u>Sotelo Briceño Diana Camila</u> (Universidad de los Andes, Colombia), Osma Johann F.
Thu 12:50 Thu 13:10	CLOSING CEREMONY					

Thursday 23					
Thu 8:30 Thu 9:10	Morand Lambda Award Plenary: Thermally Conductive Polymers and Their Composites (Room Bolivar - BASF I) <u>Junwei Gu</u> (School of Chemistry and Chemical Engineering, Northwestern Polytechnical University, China) Session Chair: Jose Antonio Covas, University of Minho, Portugal				
Thu 9:10 Thu 9:40	Industrial Keynote: New Opportunities for Polyamides (Room Bolivar - BASF I) <u>Philippe Desbois</u> (BASF, Germany) Session Chair: Jose Antonio Covas, University of Minho, Portugal				
Thu 9:40 Thu 10:20	James L. White Innovation Award Plenary: Innovative Processing, Structures and Properties of Porous Material and Foam Applications. (Room Bolivar - BASF I) <u>Chul B. Park</u> (Department of Mechanical & Industrial Engineering, University of Toronto, Canada) Session Chair: Jose Antonio Covas, University of Minho, Portugal				
Coffee Break	Room Guacamayo - BASF II		Room Bolivar - TA Instruments		Room NETZSCH
Morning session	INJECTION MOLDING Session Chair: Camilo Cruz, Robert Bosch GmbH, Germany	Morning session	MACHINE LEARNING IN POLYMER PROCESSING Session Chair: Delaunay Yohann, Technical University of Denmark, Denmark	Morning session	MORPHOLOGY & STRUCTURAL DEVELOPMENT Session Chair: Hong Wu, Sichuan University, China
Thu 10:40	Keynote: Modeling of polymer processing of thermoplastic polymers: application to the injection molding process <u>Pantani Roberto</u> (University of Salerno, Italy), Speranza Vito, Titomanlio Giuseppe, Liparoti Sara	Thu 10:40	Distinguished Keynote: The challenges of artificial intelligence and surrogate modelling for polymer processing <u>Ammar Amine</u> (ENSAM, France)	Thu 10:40	Keynote: Correlative studies of temperature-controlled structures and morphologies in poly(lactic acid) <u>Boldt Regine</u> (Leibniz-Institut für Polymerforschung Dresden, Germany), Meinig Laura, Euchler Eric, Sambale Anna Katharina, Uhlig Kai, Schwartzkopf Matthias, Stommel Markus
Thu 11:10	Investigations on injection mould inserts with reduced thermal masses using additive manufacturing <u>Fitzlaff Milan</u> (Institute of Precision Engineering, Germany), Käb Moritz, Werz Martin, Khoury Gibran, Gundelsweiler Bernd, Weihe Stefan	Thu 11:10	Application of Bayesian optimization to polymer engineering problems <u>Albuquerque Rodrigo</u> (University of Bayreuth, Germany), Rothenhäusler Florian, Brütting Christian, Groebel Phillip, Ruckdäschel Holger	Thu 11:10	Shear-induced crystal nucleation of poly (l-lactic acid) <u>Du Mengxue</u> (Martin-Luther-Universität Halle-Wittenberg, Germany), Jariyavidyanont Katalée, Boldt Regine, Tariq Muhammad, Fischer Matthieu, Spörer Yvonne, Kühnert Ines, Androsch René
Thu 11:30	Material selection for injection moulding hollow microneedles <u>Evens Tim</u> (KU Leuven, Belgium), Vanwersch Pol, Castagne Sylvie, Van Bael Albert	Thu 11:30	Quantitative Impact of Process Expert Knowledge on Developing Pumping Models for Single-Screw Extruders Using Symbolic Regression <u>Herzog Daniel</u> (Johannes Kepler University Linz, Austria), Lehner Florian, Roland Wolfgang, Marschik Christian, Berger-Weber Gerald Roman	Thu 11:30	Application relevant material characterization on film hinges <u>Kuehnert Ines</u> (Leibniz-Institut fuer Polymerforschung Dresden, Germany), Spoerer Yvonne
Thu 11:50	Development and validation of an injection moulding production cell to facilitate individual product traceability <u>Moors Jordy</u> (KU Leuven & Flanders Make@KU Leuven, Belgium), Evens Tim, Deckers Elke	Thu 11:50	Strategies to reduce energy consumption in plastic injection moulding using novel Industry 4.0 tools <u>Garzon Miguel</u> (PM Tec Servicios de Ingeniería SAS, Colombia), Pulido Jose, Cruz Jeisson, Florez Laura, Henao Daniel, Ossa Hugo	Thu 11:50	Powerful analytical methods in polymer science: Confocal Raman spectroscopy and X-ray diffraction <u>Perret Edith</u> (Empa, Switzerland)
Thu 12:10	Investigating the post-aging adhesive properties in multicomponent injection molded made of liquid silicone rubber (LSR) and acrylonitrile-butadiene-styrene (ABS) for medical device applications <u>Giesen Ralf-Urs</u> (Kassel University, Germany), Nikousaleh Mohammad Ali, Heim Hans-Peter			Thu 12:10	Study of HDPE/PET/E-GMA blends: toughening, rigidity, thermal and morphology behavior <u>Ospina Silvio Alberto</u> (Instituto de capacitación e investigación del plástico y del caucho, ICIPC, Colombia), Florez Laura Fernanda, Lopez Betty Lucy, Feregrino Ciro
Thu 12:30	Microstructural and Mechanical Properties of Weld Lines in Injection-Moulded Short Glass Fibre-Reinforced Polyamide 6 <u>Buffel Bart</u> (KU Leuven, Belgium), Mekarizadehghighishirazi Majid, Lomov Stepan V., Desplentere Frederik			Thu 12:30	Process transfer of PECVD gas barrier coatings between PE-HD and PP hollow bodies <u>Alizadeh Philipp</u> (IKV - Institute for Plastics Processing, Germany), Oberle Kevin, Dahmann Rainer
Thu 12:50 Thu 13:10	CLOSING CEREMONY				

Poster Session Monday 20th

Reference Number	Abstract Title	Presenter Name	Symposium
S01-104	Development of recyclable metal-infused feedstock for low-cost 3D printing in the context of circular manufacturing	Strugova, Daria	S01
S01-160	Biocomposite Filaments of Poly(lactic Acid)/Nanocrystalline Cellulose Containing Carbon Nanotubes for Fused Deposition Modeling 3D Printing	Hosseini, Hadi	S01
S01-242	MSLA 3D Printing of Soft Networks Bearing Hindered Urea Groups	Lewis, Christopher	S01
S01-261	ABS 3D Printing Filaments Modified with SEBS and MWCNTs	Benjamin, Carvalho	S01
S01-360	Individualised functional products through technology fusion	Kuehnert, Ines	S01
S02-315	"New Degassing Technology for Single Screw Extruders – Mechanics and Analysis"	Ponzielli, Giuseppe	S02
S02-330	On-Line Optical Monitoring of the Mixing Performance in Co-Rotating Twin-Screw Extruders	Oliveira Campos Bernardo, Felipe	S02
S02-419	Predicting Size and Shape Changes in Extrusion of Non-Circular Profiles	Rauwendaal, Chris	S02
S03-376	Foaming Modified Poly(lactic acid) Obtained by Reactive Processing as a Sustainable Solution for Single-Use Packaging.	Bettini, Silvia	S03
S03-83	Reversibly Cross-linked Polyethylene	Bikiaris, Dimitrios	S03
S05-166	Polymerization Kinetics of a Bioproduct Epoxy by Means of Differential Scanning Calorimetry	Chrissafis, Konstantinos	S05
S05-215	Decellularized Extracellular Matrix-Derived Hydrogel Embedded with Reduced Graphene Oxide Bioink for the Electrical Stimulation of Human Adipose-Derived Mesenchymal Stem Cells	Rincón-García, María	S05
S05-22	Analysis of novel polycarbonate-based materials Poly(thiourethane-urethane)s	Sikora, Janusz	S05
S05-267	Study of the critical micellar concentration using different techniques for monomethoxy-poly(ethylene glycol)-poly(ϵ -caprolactone) block copolymers for the encapsulation of bioactive molecules	Bermudez, Johan	S05
S05-424	Polysobutylene reinforcement through multi-block chain exchange shuffling polymerization with isotactic Polypropylene.	Yuliana Ospina Yepes	S05
S07-172	Influence of Melt Flow Rate on the Mechanical and Tribological Properties of Carbon Fiber Reinforced Polyoxamide Composites	Nishitani, Yosuke	S07
S07-176	Rheological, Mechanical and Tribological Properties of Modified Cross Section Chopped Glass Fiber Reinforced Plant-Derived Polyamide 1010 Biomass Composites	Nishitani, Yosuke	S07
S07-258	EFFECT OF CATALYST ON BIO-BASED EPOXY VITRIMER	Becerra Lovera, Angela	S07
S07-292	Characterization of mechanical properties of composite materials of high density polyethylene matrix reinforced with natural fibers for application in safety footwear toe caps	Guzmán Sánchez, Manuel	S07
S07-45	HAEMOSTATIC DRESSINGS BASED ON CHITOSAN LOADED WITH POLY(BUTYLENE SUCCINATE) NANOPARTICLES AND HEPARIN WITH IMPROVED ANTIBACTERIAL ACTIVITY	BIKIARIS, RIZOS-EVANGELOS	S07
S07-84	Manufacture and Characterization of Polymer based Doped Silicon Phthalocyanine Polymethylmethacrylate Composite Organic Semiconductor Films	Sandoval Plata, Emilio	S07
S08-174	Material Effects on Foam Evolution under Rotational Moulding Conditions	Pritchard, Alex	S08
S14-216	Consideration of the Morphologic Structure in an Integrative Simulation Chain for the Fatigue Life Assessment of Short-Fiber-reinforced Polymers	Kaylani, Dario	S14
S14-398	Fiber Orientation Evolution Modeling in Thermoplastic Composites: Leveraging OpenFOAM and Symbolic Computation	Nóbrega, João	S14
S17-170	Influence of the Soft segment length on Physical Properties of Polyurethane Elastomers Crosslinked by Polyrotaxanes	Murakami, Hiroto	S17
S17-300	Effect of dispersed hard segments formed by low-crystallinity 2-hydroxypropyl- β -cyclodextrins as crosslinkers of PU/EP IPNs on damping properties	Li, Jiang	S17
S11-167	In-line modification of Ca-Al LDH with stearic acid	Leuteritz, Andreas	S11
S11-248	Design of polymeric nanocapsules as carriers for controlled release of iron	Camacho, Valentina	S11
S11-271	Selective dispersion and compatibilizing effect of sepiolite nanoparticles in PLA/TPU blends	Marini, Juliano	S11
S11-279	Influence of coating structure of an SiO _x barrier coating on a PET substrate on water vapor permeation activation energy	Philipp Alizadeh	S11
S11-326	Forced Flow Processing of Highly Elastic Amorphous Polylactide and Its Applications	Wu, Hong	S11
S10-363	Preparation and Structure Control of liquid crystalline Aromatic copolyester fibers in melt-spinning process	Hahm, Wan-Gyu	S10
S10-342	Effect of NIR fluorescence ceramic additives on structure evolution of poly(ethylene terephthalate) fibers in high-speed melt spinning	Oh, Hyun Ju	S10
S10-355	Structure development of biodegradable poly(ethylene terephthalate) copolymer in high-speed melt spinning	Bae, Jong Hyuk	S10

Poster Session Tuesday 21st - Uniandes Caribe			
Reference Number	Abstract Title	Presenter Name	Symposium
S10-121	Polyacrylonitrile nanocomposite fibers with carbon nanotubes and carbon black to produce carbon fibers via direct electrical heating	Arias-Monje, Pedro J.	S10
S10-298	Usage of Recycled Tetra Pak Substrates and Doped Vanadyl Phthalocyanine for the Manufacture of Semiconductor Films	Lopez Valenzuela, Valeria	S10
S10-363	Preparation and Structure Control of liquid crystalline Aromatic copolyester fibers in melt-spinning process	Hahm, Wan-Gyu	S10
S10-342	Effect of NIR fluorescence ceramic additives on structure evolution of poly(ethylene terephthalate) fibers in high-speed melt spinning	Oh, Hyun Ju	S10
S10-355	Structure development of biodegradable poly(ethylene terephthalate) copolymer in high-speed melt spinning	Bae, Jong Hyuk	S10
S12-181	Impact of Nozzle Temperature on Failure Mode in Material Extrusion-Based Additive Manufacturing: A Study on Crack Deflection versus Crack Propagation	Waly, Christoph	S12
S12-182	Effect of notches on the creep-fatigue performance of short fiber reinforced polypropylene	Stadler, Gabriel	S12
S12-30	Influence of network structure determined by Time-domain 1H DQ NMR on the creep properties of non-stoichiometric epoxy-amine resins aimed for chemical anchoring applications	Rios de Anda, Agustin	S12
S12-384	Effect of the addition of postconsumer PP-recyclates on the performance of PP-pipes	Pinter, Gerald	S12
S12-388	Optimizing Floral Industry Infrastructure: A Comprehensive Redesign Shifting from Wood to Wood-Plastic Composite (WPC) for Support Structures	Monroy, Braian	S12
S15-135	Modeling the crystallization kinetics of isotactic polypropylene (iPP)	Fischer, Matthieu	S15
S16-20	Investigation of isotactic polypropylene crystallization in processing conditions.	Pantani, Roberto	S16
S04-357	Micro-Injection Molding: Crystallization of Polyoxymethylene and Influence of Molecular Weight	Fischer, Matthieu	S04
S04-392	OPTIMAL NUMBER OF CAVITIES IN A MOLD AND BY EXTENSION OF FRAME TOOLS	Mosquera, Manuel	S04
S18-109	Development of new advanced industry 4.0 technologies for SMEs and MSMEs for polymer processing to increase energy and production efficiency.	Munoz Relpé Nicolas	S18
S19-118	Modified thermoplastic starches (TPS) obtained by reactive melt mixing	Villar, Marcelo	S19
S19-119	Biodegradable materials of poly(3-hydroxybutyrate) and thermoplastic corn starch	Villar, Marcelo	S19
S19-183	Exploring Centrifugal Electrospinning: A Sustainable Approach Using Recombinant Spider Silk for Controlled Nanofiber Production and Filtration	Sommer, Christoph	S19
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