

Preliminary program of Polymertec 24

Day 1: 19/06/2024

Time	Session 1	Session 2
08:00 – 08:30	Registration	
08:30 – 09:00	Opening	
09:00 – 09:40	Volker Altstädt <i>Microplastic – Formation and degradation</i>	
09:40 – 10:20	Johannes Ganster <i>Are biopolymers ready for technical applications? – Blends and composites with biogenic components</i>	
10:20 – 10:30	Short break	
10:30 – 11:10	Exhibitor presentations (ca. 5 min each)	
11:10 – 12:00	Lunch break	
12:00 – 12:20	Biopolymers Remo Merijs-Meri <i>Sustainable polymer composites: from laboratory development to commercial applications</i>	Plastics recycling and circular economy Mathias Seitz <i>Thermochemical recycling of plastics – Results from UBA ReFoPlan PlastCycle</i>
12:20 – 12:40	Kübra Aslan <i>Evaluation of the processability of starch/PVOH-blends by extrusion and investigation of the mechanical properties</i>	Jan Haeberle <i>Novel mechanical characterization techniques for recycled polymers and anisotropic materials</i>
12:40 – 13:00	Isabel Kleiber <i>Fracture mechanics investigation of wine by-products reinforced biopolymers</i>	Jutta Geier <i>Expanding the use of recycled polypropylene – A study on ways to improve the mechanical recycling of PP</i>
13:00 – 13:20	Ezequiel Martin Perez <i>Evaluation of size effect and bonding quality of 3D printed mechanical samples</i>	Angela Gröbel <i>Enabling efficient chemical recycling: Characterizing waste plastic pyrolysis oil using ICP-OES and combustion elemental analysis</i>
13:20 – 13:40	Break	
13:40 – 14:00	Thermoplastic lightweight structures Andrzej Czulak <i>Polish Cluster of Composite Technology and commitment to „zero waste“ thermoplastic composite manufacturing</i>	Characterization of plastics Stefan Podzimek <i>Review of the characterization of branched polymers</i>
14:00 – 14:20	Marianne John <i>Assessment of novel sandwich structures from hybrid foam injection molding technique for automotive applications</i>	Josef Juza <i>Efficiency of compatibilization and interaction parameters in some simple models of polymer blend compatibilization using block copolymer</i>
14:20 – 14:40	Manuel Endrass <i>On the manufacturing and assembly of the multifunctional fuselage demonstrator's upper shell</i>	Amit Rawal <i>Morphology, deformation and micromechanical behaviour of ultrasonically welded thermoplastic nonwoven materials for medical applications</i>
14:40 – 15:00	Moritz Vyhnal <i>Sustainable and material efficient design with thermoplastic tape laying technology</i>	Spela Pok <i>Dehydrochlorination and yellowing of heritage poly(vinyl chloride)</i>
15:00 – 15:20	Break	
15:20 – 15:40	Characterization of plastics Juliana Martins-Schalinski <i>Investigation of porosity and strength of ultraporous PAN/PVA sponges through imaging techniques</i>	Deformation and fracture behavior Mohammad Alimardani <i>The creep resistance of silica reinforced rubbers for potential application in conical spring part utilized in the railway industry</i>
15:40 – 16:00	Pandit Rajesh <i>Morphological and mechanical properties of bamboo culms and epoxy resin/bamboo powder composite</i>	Lukas Geisels <i>A 4-ENF test in mode III applied to adhesive joints</i>
16:00 – 16:20	Thomas Höche <i>Fabricating freeform microstructures on polymers by laser swelling</i>	Eva Nezbedova <i>Plane stress impact method (PSI) as a rapid method to study RCP of PE-HD</i>
16:20 – 16:40	Armin Zankel <i>Development of a versatile specimen transfer stage to enable correlative electron microscopy of polymeric materials</i>	Marek Kovar <i>Use of the Split-Hopkinson bar test studying the dynamic behavior of pipe types of PE-HD</i>
16:40 – 17:00	Anna Sarina Schulte <i>Gauge factor of self-sensing, piezoresistive biochar networks in sustainable flax fiber reinforced epoxy resin composites under dynamic load</i>	Miroslav Raab <i>Heterogeneous degradation of polypropylene as monitored by mechanical behavior: Role of amorphous phase</i>
17:00 – 17:30	Poster session	
17:30 – 18:00	Break (no coffee)	
18:00 – 18:30	Guided tour	
18:00 / 18:30	Networking event	

Day 2: 20/06/2024

Time	Session 1	Session 2
08:00 – 08:30	Registration	
08:30 – 09:10	Robert Böhm <i>Tailored multifunctional composites for sustainable lightweight applications</i>	
09:10 – 09:50	Alexander Golberg <i>Reducing environment impact of the polyhydroxyalkanoates production by halophytic biorefinery</i>	
09:50 – 10:00	Short break	
10:00 – 10:20	Plastics recycling and circular economy Valeria Pettarin <i>Strategies to up-cycle multilayer films based on polyolefins and aluminium</i>	Polymers for sustainable technologies Hyoung-Juhn Kim <i>Synthesis of hydrocarbon-based polymer electrolyte membranes for manufacturing membrane electrode assembly using decal transfer method</i>
10:20 – 10:40	Alejandra Costantino <i>Performance of recycled and virgin PET: Influence of the drying technique</i>	Anantha Narayanan Ramakrishnan <i>Evaluation of commercial and open-source CAD applications in 3D modelling of additive manufacturing geometries for FDM</i>
10:40 – 11:00	Patrick Trubic <i>(The title will be handed in later.)</i>	Benjamin Tillner <i>Sustainable material concepts for use in continuous fiber-reinforced thermoplastic semi-finished products</i>
11:00 – 11:20	Dirk Heymel <i>Development of the catalytic cracking of long-chain hydrocarbons to support a circular carbon economy</i>	Deformation and fracture behavior Shankar Katiwada <i>Transparent nanostructured thermosetting epoxy system toughened by Oxone® modified star block copolymer</i>
11:20 – 12:10	Lunch break	
12:10 – 12:30	Plastics recycling and circular economy Mario Messiha <i>Implementing recyclates: The influence of impurities on long-term properties</i>	Thermoplastic lightweight structures Maurice Langer <i>Laser in-situ joining as a novel approach for longitudinal fuselage joint of world's largest thermoplastic composite aircraft structure</i>
12:30 – 12:50	Salam Md Abdus <i>New generation of encapsulation films for PV modules with significantly long service life</i>	Martin Jührisch <i>Data-driven assistance systems for self-regulating manufacturing processes: AI applications using the example of plastics technology</i>
12:50 – 13:10	Biopolymers Rene Sattler <i>Crystal growth and polymorphic states in long chain polyamides PA10.n</i>	Anantha Narayanan Ramakrishnan <i>Numerical study to understand the influence of infill density on deformation of a 3D printed FDM part</i>
13:10 – 13:30	Ulrike Staudinger <i>Development of functional PLA/PBAT blends with carbon-based nanofiller using epoxidized soybean oil as an additive to improve toughness and filler dispersion</i>	Varun Kumar Minupala <i>Analysis of thermoplastic sandwich structures in thermoforming and injection molding processes</i>
13:30 – 13:50	Michael Gonzin <i>(The title will be handed in later.)</i>	Christoph Doerffel <i>Expanding the range of applications for PP twin-wall sheets by local thermo-mechanical forming</i>
13:50 – 14:10	Break	
14:10 – 14:30	Polymers for sustainable technologies Gabriele Eder <i>Polymers in PV-modules – Recent developments towards increased sustainability</i>	Biopolymers Ramsheswar Adihikari <i>Application of lignocellulosic natural fibers for biomedical applications</i>
14:30 – 14:50	Michal Volf <i>Stepwise isothermal segregation method as means of predicting the lifetime of PE-HD pipes</i>	Netra Lal Bhandari <i>Natural fibers surface modification effect on micromechanical, thermal, and water absorption behaviors in developing lignocellulosic polymer composites</i>
14:50 – 15:10	Anton Mordvinkin <i>Applying sustainable polymer films for photovoltaic modules: Reliability studies</i>	Sharmin Akter <i>Investigation on the influence of bio-based additives on mechanical properties and life cycle assessment of PHBV biopolymer</i>
15:10 – 15:30	Marco Rudolph <i>Microstructural analyses of failure mechanisms in insulating polymers for power electronics</i>	Shanta Pokhrel Bhattarai <i>Functionalization of chitosan and its antimicrobial & antioxidant activity</i>
15:30 – 15:50	Ritvars Berzins <i>Potential applications of the two-component silyl-terminated prepolymer/epoxy resin systems and their importance in the adhesives market</i>	Dhruba Raj Bhattarai <i>Polymer applications in climate smart horticulture in Nepal</i>
15:50 – 16:20	Awards and closing	
16:45	Excursion	