



WEDNESDAY · JUNE 28 · 2017

Room	Großer Saal	Kleiner Saal	Hörsaal	Marta-Fraenkel-Saal	SR 9	SR 5	SR 3	SR 2
Chair person 08:30 – 09:15 09:15 – 09:30	Udo Wagenknecht PLENARY LECTURE Suprakas Sinha Ray Polymer-based nanoengineered materials: Shaping the future of plastic industry Presentation of upcoming PPS meetings							
Chair person 9:40 – 10:10 Keynote 	I. Kühnert S06-79 G. Titomanlio Mechanical characterization of iPP injection molded samples on multiple length scales	J. Mietlinger S06-354 K. Lamnawar Multi-scale investigation and fundamental studies on interface / interphase in multilayered polymer systems towards better controlling coextrusion process	Ch. Hübner S08-81 I. Manas-Zloczower Fatigue and structural health monitoring of delamination in composite materials	H.-J. Radusch S04-364 Q. Wang Preparation and thermal processing of functional poly(vinyl alcohol) based micro / nanocomposites	U. A. Handge S05-197 D. Go In-situ observation of multiple-necking behavior in continuous cold drawing of PET filaments in ethanol	U. Wagenknecht S01-154 B. Vergnes Preparation by melt compounding of composites reinforced by natural fibers: From breakage mechanisms to process optimization	J. Pionteck S02-207 V. Gigante Extruded blends of PLA and PBAT: Correlation between composition and fracture behaviour	J.-F. Agassant S03-10 E. Herrera Valencia On the pulsating flow behavior of a biological fluid: Human blood
10:10 – 10:30	S06-17 Q. Yang Tailored microstructures and properties of microinjection moulded isotactic polypropylene / poly(ethylene terephthalate) blends	S06-339 M. Andretzky A new joint product made of PCM and plastic for application in water-powered heat storage systems manufactured by a coextrusion process	S08-396 E. Brandley Alignment study of CNT veils and the influence on their composites	S04-113 T. Watanabe Antistatic properties of transparent plastics using a donor-acceptor molecular compound antistatic agent	S05-175 J. Wellekötter Recycling of composites – A new approach minimizes downgrading	S01-173 A. Mostafa The influence of mixing parameters on the properties of micron-sized blast furnace slag filled PP compounds	S02-155 L. Goebel Development of a block copolymer for impact modification of poly-hydroxyalkanoate (PHB)	S03-46 B. Jakob Following phase transitions with rheometry and simultaneous Raman-spectroscopy
10:30 – 10:50	S06-47 Y. Spörer Crystallization behavior of injection molded semi-crystalline thermoplastics	S06-240 M. Langlotz Single screw foam extrusion with low pressurized blowing agents		S04-119 S. Konagaya Study on effect of organic compounds with OH group on conductivity enhancement of poly(3,4-ethylene-dioxythiophene) doped with poly(styrene sulfonic acid) (PEDOT:PSS)	S05-232 M. Längauer Study of infrared sheet heating for thermoforming fiber-reinforced thermoplastic composite parts	S01-170 A. Venkatesh Melt processing of cellulose nanofibrils and amphiphilic copolymer based bio-composites		
10:50 – 11:10	BREAK							
Chair person 11:10 – 11:40 Keynote 	I. Kühnert S06-57 J. Onken Integrative simulation of weld line strength in unreinforced amorphous thermoplastics	D. Fischer S11-90 Ph. Coates In-situ X-ray structure measurements of polymers during die-drawing	I. Manas-Zloczower S08-393 J. Vilatela CNT yarns in structural composites	J. Labuschagne S04-284 M. C. Paiva Nanostructured films of natural polymers and graphene derivatives	U. A. Handge S05-27 F. Reinders Modelling the stretching of polypropylene films by a nonlinear spring dashpot model	U. Wagenknecht S01-219 J. Rudloff Analysis of the process behavior of co-kneaders	P. Moldenaers S02-131 P. Cassagnau Efficient hydrosilylation reaction in polymer blending: An original approach to structure PA12 / PDMS blends at multiscales	P. Spencer S03-367 R. Gupta Effects of morphology and rheology on nylon 6 glass fiber composites
11:40 – 12:00	S06-125 M. B. Baradi Mechanical characterization of frontal and flowing weld lines in injection-molded short fiber-reinforced thermoplastics	S11-61 M. Rahammer Local defect resonance excitation thermography for damage detection in plastic composites	S08-214 N. Kchit Strategies for carbon nanotubes incorporation in structural composites	S04-182 R. Hartmann Tailored wood strand plastic composites for high performance applications	S05-92 K. Egoshi The evaluation of biaxial stretchability of polypropylene films by a newly developed test machine	S01-225 O. Celik A novel experimental setup for characterization of dispersive mixing in single-screw extruders	S02-178 J. Heyn Structure properties relationships of PA6 / EOR blends	S03-43 N. Laufer Effects of interparticle interactions on the flow behaviour of low density polyethylene filled with various fillers
12:00 – 12:20	S06-290 A. Geyer Enhancing the weld line strength of injection molded components by means of a new molding tool technology	S11-42 M. Schilling Environmental stress cracking of PE-HD induced by liquid media – FNCT testing	S08-374 M. T. Müller Nanostructured glass fiber sensor yarns for structural health monitoring	S04-105 H.-J. Radusch Deformation behavior of polylactide relating to plastic forming processes	S05-144 T. Kanai Dynamics and structure development for biaxial stretching PA6 films	S01-147 H.-J. Luger Influence of the screw configuration in a co-rotating twin screw extruder on the rheological and mechanical properties of a talc-reinforced polypropylene	S02-143 C. Burgstaller The influence composition on the properties of polyethylene based blends	S03-12 O. Abakar Adam Design, structuration and rheological properties of laponite based polymeric nanocomposites
12:20 – 12:40	S06-459 M. Kreutzbruck Comparison of different ultra-sonic methods for weld line characterization	S11-8 W. Essig Non-contact inline monitoring of thermoplastic CFRP tape quality using air-coupled ultrasound	S08-402 H. De Luca Continuous production of carbon nanotube-grafted quartz fibers: Effect of carbon nanotube length on fiber / matrix adhesion	S04-159 A. Scholten Use of recycled waste paper as fiber reinforcement for PP – Relationship of fiber extraction process and mechanical properties of the composites	S05-132 M. Mehranpour Preparation of intelligence barrier films based on low density polyethylene and evaluation of its properties	S01-41 V. Hristov Melt homogenization in co-rotating twin-screw extruders: Design of a novel kneading disk	S02-271 L. Delva Compatibilization of PET-PE blends for the recycling of multilayer packaging foils	S03-186 J.-M. Haudin Shear-induced crystallization of polymers: Discussion on the coupled mechanical and structural effects
12:40 – 13:00	S06-417 A. Porsch Knowledge-based material selection for injection-molded, thermoplastic parts	S11-165 T. Pflock Dielectric analysis for online cure monitoring: Correlation with thermal and rheological properties of epoxy resins	S08-301 M. Mehranpour Hybrid nanocomposite as strain sensor on the base of SBS / CNT / RGO	S04-76 S. Caba Application of desert sands as reinforcing material for polymer concrete	S05-400 D. B. Anthony Crack arrest in finger jointed thermoplastic polyethersulfone film interleaved carbon fiber reinforced composites	S01-19 K. Scharr Investigation of the temperature development within the solid conveying zone of twin-screw extruder based on the discrete element method (DEM)		S03-373 M. Salami Hosseini Prediction of final crystal morphology of semi-crystalline polymers using phase field modeling (PFM)

S01 Mixing and compounding

S02 Polymer Blends and Alloys

S03 Rheology and Process Simulation

S04 Functional, Nano and Bio Composites

S05 Fibers, Films and Foams

S06 Injection Molding and Extrusion

S07 Elastomer Materials and Processing

S08 Nanocarbon Based Composites, CNPComp2017

S09 Polymer Modification with Ionizing Radiation

S10 Nano- and Microstructured Surfaces and Films



S11 In-line Analytics and Process Monitoring

S12 Welding and Joining Technology

S13 Polymer Materials for Medical Applications

S14 Additive Manufacturing



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13:00 – 14:00	LUNCH							
Chair person	D. Drummer	I. Kühnert	M. Paiva	D. Pospiech	V. Altstädt	B. Vergnes	D. Schubert	M. Grenzer
14:00 – 14:30	S06-347 B.-R. Kim Simulation of the mold structure for reducing cavity filling deviation in micro injection molding	S11-198 B. Praher Inline melt homogeneity measurement in injection molding	S08-399 N. Rubio-Carrero Engineering graphene with polymers for the preparation of nanocomposites	S04-142 Ph. Coates Orthopaedic compression screws formed from body-temperature reverting, shape-memory polymers	S05-329 A. S. Walallavita Biopolymer foam blends of poly(lactic acid) and Novatein® thermoplastic protein	S01-82 K. Matsumoto New screw design induced extensional flow for enhancement of CNT dispersion in PP matrix through twin-screw extruder	S13-2 S.-J. Liu Biodegradable 3D printed bone anchoring bolts to enhance tendon-bone healing	S03-270 C. Holzer Strain-dependent upscaling method in dissipative particle dynamics simulations of nano-particles orientation under shear
	Keynote 							
14:30 – 14:50	S06-64 S. Zhou (A. Hrymak) Microinjection molding of carbon filled polypropylene nanocomposites: The effect of filler type on electrical and morphological properties of micro-moldings	S11-89 A. Geyer Material characterization in the injection molding process	S08-140 S. Colonna In-situ polymerization of poly(butylene terephthalate) in presence of graphene-related materials: Effects of nanoparticles structure and defectiveness	S04-222 C. Kahl Advanced short fiber composites with hybrid reinforcement based on glass and cellulose fibers - Effect of coupling agent on mechanical properties	S05-13 X. Liao Crystals in-situ induced by supercritical carbon dioxide as bubble nucleation agents on foam structure controlling of poly(L-lactic acid)	S01-209 J. Heyn Interaction between coolant polyamide 6.6, glass fibers and additives	S13-134 M. El Fray Electrospinning of spring-like fibers from elastomeric copolyesters	S03-49 D. V. Perumal Correlation of steady shear rheology and morphology of nylon 6 glass fiber composites
14:50 – 15:10	S06-328 Y. Chen Preparation and microinjection molding of polyoxymethylene / molybdenum disulfide nanocomposite	S11-325 T. Scheffler Determination of the flow and curing behavior of highly filled phenolic injection molding compounds by means of spiral mold	S08-384 K. Kröning Functionalization of carbon nanotubes (CNTs) by using different oxidative agents and characterization with regard to functionalization efficiency	S04-210 J. Büttler Investigation of the interface of polyamide-polypropylene laminates	S05-174 M. Fafara Radiation-based pre-foaming of expandable polystyrene beads (EPS)	S01-298 V. Ojijo Water assisted extrusion of PA / South African bentonite nanocomposites: A process cost saving perspective	S13-231 F. Küng Influence of the molar mass on the suture retention properties of polycaprolactone	S03-101 J. Domurath Viscosity amplification in dilute suspensions of rods in a Carreau matrix fluid
15:10 – 15:30	S06-6 S. Zhou Microinjection molding of polypropylene / multi-walled carbon nanotubes nanocomposites	S11-26 S. Joas CFRP pipe inspection by using air coupled ultrasound	S08-148 K. Enomoto Effect of UV-enhanced oxidation on tensile strength of carbon nanofiber reinforced polyamide 11	S04-29 J. R. Robledo-Ortiz Fiber surface treatment to increase the fiber content and mechanical properties of rotomolded coit-LM-DPE and agave-LMDP composites	S05-340 R. Pantani Foam injection molding of magneto sensitive polymer composites	S01-343 L. Chen Exfoliation of layered zirconium phosphate nanoplatelets by melt compounding	S13-262 B. Shriky Injectable hydrogels for controlled release drug delivery	S03-215 J.-F. Agassant Rheology of industrial plastisol formulations
15:30 – 15:50	S06-351 M. Babenko Study of the factors affecting heating mechanism in ultrasound microinjection molding		S08-476 I. Kolaric Process development for industrialization of CNT electrodes for electro active polymers	S04-128 A. Bajpai Tailored epoxy system modified with block co-polymer, core shell rubber and hybrid: Mechanical properties and fracture mechanisms	S05-246 A. Javadi The effect of nano calcium carbonate on mechanical properties, crystallinity and foam ability of PLA / starch / epoxidized soybean oil (ESO) blends	S01-263 K. Khodabakhshi Mechanical properties of plasticized poly(lactic acid) with epoxidized soybean oil	S13-436 A. Kelly Investigation of immiscible polymer blends to control drug release rate of polymeric pharmaceutical compounds	S03-309 W. Friesenbichler Viscosity measurements for rubber compounds usings slit-die rheometry
15:50 – 16:20	BREAK							
Chair person	D. Drummer	M. Kreuzbruck	D. Lellinger	C. Bonten	M. Sibanda	P. Cassagnau	S.-J. Liu	M. Grenzer
16:20 – 16:40	S06-229 M. Sorgato Effects of different mold surface coatings on the ejection force in micro injection molding	S11-185 H. Bayazian Degradation of bimodal distribution polypropylene and polyethylene during the extrusion process	S08-7 J. Schawe Characterization of the nucleation efficiency of carbon nanotubes for polymer crystallization	S04-426 J. Labuschagne Layered double hydroxide applications - Industry vs. research	S05-275 D. Rath Fine-tuning the properties of expandable polystyrene (EPS)	S01-299 A. Greco Cardanol derivatives as effective plasticizers for polylactic acid	S13-218 D. Schubert Failure of silicone breast implants - Novel insights on the mechanical properties of implant shells	S03-268 W. Takarada Effect of thermal history on crystallization behavior of polyethylenes in high-speed DSC measurements
16:40 – 17:00	S06-480 M. Fischer Micro injection molding: Process behavior and testing of thermoplastics	S11-454 E. M. Troisi Structure evolution during film blowing: An experimental study using in-situ small angle X-ray scattering	S08-416 M. R. Saeb An investigation on cure kinetics of epoxy / MWCNTs nanocomposites through isothermal calorimetric and rheological analyses	S04-133 P. Atabaki Preparation of intelligent antibacterial films based on LDPE and evaluation of its properties	S05-118 H. Naguib Shock damping properties of out-of-plane reinforced composites with functionality graded syntactic foams	S01-67 B. N. Can PBAT / thermoplastic starch blend: "Concentration of OTPS and comparison with TPS"	S13-86 S. Noorzai Optimization of collagen extraction from various cattle species hide by comparative methods	S03-260 G. Peters Full characterization of multi-phase, multi-morphological kinetics in flow-induced crystallization of iPP at elevated pressure
17:00 – 17:20	S06-383 E. Abdelkhalik Investigation on the influences of injection moulding process parameters on the short-shot filling of polymeric micro features	S11-470 (End 17:30) D. Fischer  keynote In-line analytics of the content, the dispersion and the nano-structuration process of polymer nanocomposites during extrusion		S04-387 M. Esfandeh Preparation, mechanical properties and moisture absorption of urethane acrylate resin / clay nanocomposites	S05-313 I. Barbara Synthesis of porous polymers by emulsion templated step-polymerization	S01-247 K. Ragaert Upcycling contaminated post-industrial PP through compounding: A design from recycling case study	S13-233 B. Stafiej Transparency and suture ability of alginate hydrogel reinforced nano-fiber scaffolds	S03-123 M. S. Kamal Rheological properties of polyacrylamide and amido amine-based cationic gemini surfactant solutions
17:20 – 17:40				S04-35 M. Mörl Influence of 1,3,5-benzenetrisamide based additives on the morphology and mechanical properties of isotactic polypropylene	S05-124 G. Pircheraghi Assessment of particles interface welding quality in microporous structures fabricated by sintering process		S13-88 Ph. Coates Property distribution and property gradient polymer products for enhanced functionality	
19:00 – 22:00	GALA DINNER & BOAT TOUR (19:00 Boarding • 19:30 Departure)							

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- S05** Fibers, Films and Foams
- S06** Injection Molding and Extrusion
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- S09** Polymer Modification with Ionizing Radiation
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- S14** Additive Manufacturing

