PPS 2017 June 26–29 Europe Africa Conference

TUESDAY · JUNE 27 · 2017

Room	Großer Saal	Kleiner Saal	Hörsaal	Marta-Fraenkel-Saal	SR 9	SR 5	SR 3	SR 2
09:00 – 09:30	**OPENING CEREMONY**							
09:30 – 9:45	**Ica Manas-Zloczower** Laudatio 80th Birthday Zehev Tadmor							
9:45 – 10:30	**PLENARY LECTURE** **Tim A. Osswald** Modeling and simulating polymer processes – History, capabilities and challenges							
10:30 – 11:00	**BREAK**							
Chair person	*I. Kühnert*	*C. Holzer*	*P. Pötschke*	*A. Leuteritz*	*H. Brünig*	*N. Rudolph*	*J. Piontek*	*M. Grenzer*
11:00 – 11:30 *Keynote*	**S06-224** **W. Six** A Novel method for the prediction of adhesive strength for two-component injection moulding of thermoplastics with thermoset rubbers	**S06-192** **J. Vlachopoulos** Defects in industrial film extrusion	**S08-424** **A. Windle** Carbon nanotube fibers, fifteen years of progress with challenges and prospects for the future	**S04-451** **C. Brinson** NanoMine: Development of material data resource and analysis tools for polymer nanocomposites	**S05-169** **M. Sibanda** Development of polyolefin bicomponent fibers as controlled release devices of repellents for malaria vector control	**S14-283** **J. Schmidt** Production of spherical micron-sized polymer particles foradditive manufacturing by liquid phase processes	**S02-230** **H. Khonakdar** Rheological and morphological correlations in PP / EVA blends containing nanoclay in presence of a halogen-free flame retardant	**S03-112** **P. Spencer** Measuring and modelling necking of polymers
11:30 – 11:50	**S06-391** **U. Heyne** Injection mouldings consisting of a thermosetting plastic and an elastomer – Characterization of the adhesion mechanisms on joined thermosetting plastic / elastomer composites	**S06-323** **M. Burgfeld** Development of a new measurement concept for the process-oriented characterization of rheological material properties	**S08-398** **J. Fernández-Toribio** Multifunctional properties of carbon nanotube fibers	**S04-289** **A. D. Macheca** Stiffening mechanisms in vermiculite-amorphous polyamide bio-nanocomposites	**S05-34** **N. H. A. Tran** New fibers from PCM using the conventional melt spinning process	**S14-138** **J. Benz** Temperature induced ageing of PA12 powder during selective laser sintering process	**S02-450** **N. Kardan** Shapememory behavior of nanocomposite based on SBS / LLDPE / CNT	**S03-276** **G. Kurt Demir** Peroxide crosslinking of lineer low density polyethylene
11:50 – 12:10	**S06-461** **K. Kurth** Improvement of the reproduction accuracy of a defined pole length of injection molded encoder wheels	**S06-208** **S. Hirschfeld** Bubble-free polymer devolatilization in a simplified extruder model	**S08-318** **A. Clancy** Reactive coagulation of single-walled nanotubes for tougher composites – Solution processing and assembly	**S04-60** **C. C. M. Ma** Processing of electromagnetic interference shielding water-borne polyurethane composites filled with silver nanoparticles deposited on functionalized graphene	**S05-32** **D. Aussawasathien** Bifunctional electrospun silver modified polyarylonitrile-activated carbon composite fibers	**S14-78** **M. Van den Eynde** Flow behaviour of laser sintering powders at elevated temperatures	**S02-412** **C. H. Chen** Lamellar assembly of poly(3-hydroxybutyric acid-co-3-hydroxyvaleric acid) spherulites crystallized with poly(vinyl methyl ether)	**S03-103** **J.-U. Walter** Distinction of measurement-related and material-related scattering of Young's modulus of thermoplastics during tensile testing
12:10 – 12:30	**S06-249** **J. Heinisch** Online analysis of melt viscosity during injection moulding with a hot runner rheometer	**S06-237** **B. Whiteside** Manufacturing and characterization of lidocaine films prepared by hot melt extrusion	**S08-377** **H. Meeuw** Development of a colored GFRP with antistatic properties	**S04-473** **R. Fechter** Modelling and optimisation of the mechanical and other material properties of a polymer nanocomposite using statistical design of experiments	**S05-422** **M. Al Aiti** Structural properties of carbon fibers with different elastic moduli (100–950 GPa) studied by Raman spectroscopy, WAXs and SAXs techniques	**S14-458** **M. Launhardt** Developing a patient individualized flexible silicone implant using SLS and vacuum die casting	**S02-378** **G. Lugito** Mechanisms of dual spherulitic morphology in poly(L-lactic acid) induced by amorphous polymer	**S03-449** **I. Ivaneiko** Application of multi-scale approach to rubbers reinforced at different processing conditions
12:30 – 12:50	**S06-310** **S. M. Boorla** Capability database of injection moulding process-requirements for wider suitability and higher acceptance	**S06-104** **E. Ramakers-van Dorp** A new approach to model thermal expansion of semi crystalline polymers	**S08-368** **A. Mikhalchan** Nanoscale chemical imaging as an advanced tool for carbon nanotube fiber nanocomposite engineering	**S04-102** **M. Derradji** Highly filled boron nitride-phthalonitrile nanocomposites for exigent thermally conductive applications	**S05-227** **M. Nofar** Continuous foam extrusion of high impact polystyrene (HIPS): Effect of processing parameters and blowing agent type and content	**S14-457** **S. Greiner** A new approach for getting more homogeneous temperature fields in selective laser sintering	**S02-341** **M. Otady** Influence of glass flake nanoparticles on thermal and dynamic mechanical properties of PP / EVA blends: Correlation with microstructure	**S03-21** **R. Hajiraissi** Linear and non-linear viscoelastic behavior of fibrillar morphology formed via fiber spinning of PP / PA6 blend
12:50 – 14:00	**LUNCH**							
Chair person	*W. Friesenbichler*	*U. Wagenknecht*	*B. Grady*	*J. Labuschagne*	*H. Brünig*	*J. Schmidt*	*H. Khonakdar*	*E. Mitsoulis*
14:00 – 14:30 *Keynote*	**S06-314** **G. R. Berger** A study on cooling performance in injection molding. Heat conductive mold materials versus conformal cooling channels	**S06-162** **J. Miethlinger** Investigations with a new specific grooved barrel design, starved feeding and heuristic modeling for high capable single screw extruders	**S08-344** **P. Moldenaers** Tuning the phase separated morphology and resulting electrical conductivity of carbon nanotube filled blends with a random or block copolymer	**S04-446** **X. Qi** Functionalized nanomaterials based polymer nanocomposites: A way to new generation flame retardant materials	**S05-272** **V. Altstaedt** Trends and perspectives of bead foam processing	**S14-455** **N. Rudolph** Understanding the temperature field in fused filament fabrication for enhanced mechanical part performance	**S02-355** **A. Maazouz** Melt strengthening of poly(lactic acid) and its blends: Shear and elongation rheological investigations for forming process	**S03-425** **C. Kneidinger** Simulation of asymmetrical multilayer flat film coextrusion regarding slip at the wall and interfacial slip at the polymer-polymer interface

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 Manufactoring

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14:30 – 14:50	**S06-255** **K. Straka** Influences of processing parameters on the melt temperature homogeneity in injection moulding	**S06-106** **M. Stegelmann** Extrusion of high-performance polyetherimide pipes with variable wall thickness for aircrafts	**S08-116** **M. Adhikary** Effect of mixing sequence on the fibrillation of thermo tropic liquid crystalline polymer in the blend system in presence of graphene	**S04-199** **C. Pawelski** Effect of filler type, morphology and particle size distribution on thermal and flame retardant properties of bimodal boron nitride & boehmite-filled EP-Novolac composites	**S05-51** **T. Standau** Development of a beadfoam from the engineering polymer polybutylene terephthalate (E-PBT)	**S14-264** **W. Van De Steene** A novel process for tailored stiffness and strength in extrusion based additive manufacturing	**S02-395** **A. Rigoussen** Insights on the efficiency of bio-based antioxidants in PLA / ABS blends	**S03-40** **G. Zitzenbacher** Evaluation of the influence of the tool surface on polymer melt flow using a novel rheological extrusion slit die
14:50 – 15:10	**S06-56** **J. Wipperfürth** A concept of an injection compression mould for non-invasive ultrasound tomographic temperature measurements	**S06-217** **K. Soete** Simulation of the effects of using conformal cooling channels in SLM produced plastic extrusion calibrators	**S08-360** **D. Lellinger** Influence of carbon particle dimension on formation of the filler network in a polymer melt	**S04-59** **G. Sanchez-Olivares** Keratin fibers recovered from tannery industry wastes as fire retardant agent on PLA composites	**S05-414** **A. Leuteritz** Cyclic testing of polyurethane foam of plastic jacket pipes for district heating	**S14-172** **M. Hebda** Control of fused deposition modeling, melt extrusion and laydown	**S02-250** **N. Kassos** Investigation of PLA-biopolymer blends to improve properties	**S03-242** **M. Schön** Simulative determination of the optimization potential of additively manufactured static mixing elements for extrusion
15:10 – 15:30	**S06-55** **T. Koslowski** Shrinkage, warpage and residual stresses of injection molded parts	**S06-167** **P. Thieleke** Investigation of residence time distribution of different screw-barrel concepts via ultrasound in single-screw extrusion	**S08-31** **R. Nadiv** Optimal performance of nano-carbon polymer composite: Dimensionality matters	**S04-447** **L. Zhi (D.-Y. Wang)** Hierarchical functionalization of halloysite nanotube and its enhancement in thermal stability, fire retardancy and mechanical property of epoxy resin	**S05-336** **S. Goris** Experimental study of fiber length reduction of highly filled long glass fiber-reinforced polypropylene in a simple shear flow	**S14-241** **S. Schuschnigg** Processability of perlite-filled polypropylene composites in extrusion-based additive manufacturing	**S02-228** **M. Nofar** Development of PLA / PBAT and PLA / PBSA bioblends: Effects of processing type and PLA crystallinity on morphology and thermo-mechanical properties	**S03-334** **M. Öztoksoy** Extrusion and injection molding nanocellulose – Polypropylene nanocomposites: Critical processing aspects
15:30 – 15:50	**S06-460** **B. Neubig** Thermoforming – Determining temperature profiles across sheet thickness by pyrometic measurements	**S06-180** **J. Kettemann** Experimental investigation and improved modeling of the melting process in single-screw extruders with a grooved plasticizing cylinder	**S08-468** **E. Bilotti** Breaking the nanofiller loading / dispersion dichotomy in polymer nanocomposites	**S04-322** **D. Pospiech** Improved flame retardancy for poly(butylene terephthalate) with phosphorus-containing polyesters	**S05-223** **U. A. Handge** Open-celled foams based on diblock copolymers: Influence of melt elongational properties on foam morphology	**S14-194** **M. Green** Welding of 3D printed carbon nanotube-polymer composites by locally induced microwave heating	**S02-196** **L. Maubane** Development of highly functional butyl–etherified starch / poly [(butylene succinate)-co-adipate] nanocomposites using reactive extrusion	**S03-428** **V. Lenzi** Molecular dynamics simulations of isocyanate-based molecules viscosity
15:50 – 16:20	**BREAK**							
	Chair person	*S. Roth*	*J. Vlachopoulos*	*Y. Martinez-Rubi*	*X. Qi*	*C. Park*	*N. Rudolph*	*J. Pionteck*	*F. Costa*
16:20 – 16:40 *(no keynote)*	**S06-406** **D. Masato** Flow visualization of thin-wall injection molding and effect of mold coatings	**S06-433** **C. Kneidinger** The behavior of bulk solids in the solids conveying zone of smooth barrel single screw extruders: Friction, bulk density and pressure anisotropy	**S08-200** **S. Kihara** Development of polymer composites containing nano-carbon materials by the high pressure fluid mixing method	**S04-277** **E. Bicer** Properties of crosslinked poly-ethylene / Oib-POSS nanocomposites: "Effect of peroxide concentration"	**S05-166** **K. Karlsson** Extrusion parameters optimisation for foaming of hydroxy-propyl methylcellulose	**S14-288** **F. Kaut** Structure-property relationship of additive manufactured thermoplastic polymers processed with Arburg freeformer	**S02-251** **S. Cano** Development of highly-filled polymer compounds for fused filament fabrication of ceramics and solvent debinding	**S03-212** **D. Altmann** Simulation of the melting behaviour in an injection moulding plasticizing unit compared with pressure and ultrasound measurements
16:40 – 17:00	**S06-193** **S. Ma** Visualization analysis on reciprocating plastication process of glass fiber reinforced resin by glass-inserted heating cylinder	**S06-161** **O. T. Kast** Effects of pellet characteristics and feed zone design on the output of grooved-feed extruders at high screw speeds	**S08-216** **Y. Ma** Freestanding mesoporous three-dimensional graphene bulk prepared by chemical vapor deposition on sacrificial Cu nanopowder sinter templates	**S04-183** **J. Thunberg** Nanocellulose reinforced thermoplastic composites of poly(ethylene acrylic acid)	**S05-171** **J. Schuette** Near-net-shape rigid foam cores for CFRP sandwich composites made from polyethylene terephthalate using thermoforming		**S02-295** **F. Memarian** Development of shape memory polymers based on TPU / ABS blends containing MWCNT	**S03-306** **J. Muñoz Sánchez** Viscoelastic effects on the roll-separating force and power input on the calendering process of a non-Newtonian fluid
17:00 – 17:20	**S06-177** **C. Wang** Direct visualization of cavity filling and demolding phenomena through textured glass block	**S06-381** **F. Baumgarten** Waste heat utilization for granulate preheating in extrusion processes to increase energy efficiency	**S08-452** **A. Paleo** Solid-state carbon-based textile supercapacitors for energy storage applications	**S04-3** **O. Koysuren** Immobilization of TiO_2 nanoparticles in PMMA nanofiber mat for photocatalytic removal of dyes from water	**S05-114** **A. K. Ghosh** Controlled foam processing and cell structure development of gamma irradiated polypropylene / elastomer blends	**S12-135** **C. Das** Effects of vibration welding process parameters on the weldability of the thermoplastics	**S02-357** **L. Duan** Strain sensor with selectively distributed filler network in conductive polymer composites	**S03-58** **E. Mitsoulis** Numerical simulation of plastic sheet solidification by using chilling rolls
17:20 – 17:40	**S06-38** **G. Heiderich** Fiber length reduction during injection molding	**S06-75** **M. Düngen** Characterization of bulk materials for single screw extrusion by means of fluidization testing	**S08-437** **D. Lellinger** Fabrication and properties of electrically conductive bicomponent fiber	**S04-91** **M. Kodal** The effects of surface modification of MWCNTs with hexanol on the non-isothermal crystallization kinetics of poly(butylene succinate)	**S05-97** **R. Banerjee** Properties and foamability of styrene-ethylene-butylene-styrene (SEBS) / polystyrene (PS) blends	**S14-430** **J. Covas** Polyetheretherketone hybrid nanocomposite filaments for 3D printing	**S02-71** **N. Tuccar Kilic** Effects of epoxy-POSS nanoparticles on the compatibility of PLA / PBAT blends	**S03-371** **M. Mostafaiyan** Tension force to reduce the spurious currents in two-phase flow
17:40 – 18:00	**S06-33** **S. Shimokusuzono** Effect of screw design on fiber breakage and dispersion of FRTP in injection molding	**S06-126** **S. Yao** Pelletize condition dependence of injection molded article of recycle plastic	**S08-287** **M. Mehranpour** Compatibilizing of PP / NBR immiscible blend using modified nano graphene oxide		**S05-36** **M. Demir** Effect of trisamide based nucleating agents on the morphology and mechanical properties of isotactic polypropylene foams	**S14-365** **G. Chen** Fused deposition modeling of poly(vinyl alcohol) based filaments	**S02-315** **V. Krinichnyi** Spin-correlated charge transfer in low-band-gap copolymer composites	
18:00 – 22:00	**POSTER SESSION**							

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