



| Room | Großer Saal | Kleiner Saal | Hörsaal | Marta-Fraenkel-Saal | SR 9 | SR 5 | SR 3 | SR 2 |
|---------------------|--|---|---|---|---|--|--|--|
| 09:00 – 09:30 | OPENING CEREMONY | | | | | | | |
| <i>Chair person</i> | <i>Tim Osswald</i> | | | | | | | |
| 09:30 – 10:15 | PLENARY LECTURE Suprakas Sinha Ray Polymer-based nanoengineered materials: Shaping the future of plastic industry | | | | | | | |
| 10:15 – 10:30 | Ica Manas-Zloczower Laudatio 80 th Birthday Zehev Tadmor | | | | | | | |
| 10:30 – 11:00 | BREAK | | | | | | | |
| <i>Chair person</i> | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX |
| 11:00 – 11:30 | 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 for additive 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 |
| | <i>Keynote</i>  | | | | | | | |
| 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 | S04-102 M. Derradji Highly filled boron nitride-phthalonitrile nanocomposites for exigent thermally conductive applications | 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 linear 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 K. Nair 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 | S04-289 A. D. Macheca Stiffening mechanisms in vermiculite-amorphous polyamide bio-nanocomposites | 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 | | | | | | | |
| <i>Chair person</i> | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX |
| 14:00 – 14:30 | 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 The SPLINE polymer extruder concept – A novel grooved barrel single screw extruder | 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 D.-Y. Wang 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 |
| | <i>Keynote</i>  | | | | | | | |

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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|---------------------|---|--|---|---|---|--|--|--|
| 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. Wipperfurth 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 I. Alig 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 | S06-168 P. Thieleke Investigation of the melt quality of a wave screw in a grooved plasticizing zone with a high specific throughput rate | 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 B. Girginer 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 pyrometric 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 | S03-348 F. Costa Modeling of injection overmolded stamp formed thermoplastic composites |
| 15:50 – 16:20 | BREAK | | | | | | | |
| Chair person | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX | XXX XXX |
| 16:20 – 16:40 | 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 | S14-286 J. Knöchel Fatigue crack growth propagation in 3D-printed polymer structures – A comparison of different additive manufacturing technologies | S02-295 F. Memarian Development of shape memory in 3D-printed polymer structures – A comparison of different additive manufacturing technologies | S03-306 J. Muñoz Sánchez Viscoelastic effects on the roll-separating force and power input on the calendaring 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. Baumgärtner Solid-state carbon-based textile supercapacitors for energy storage applications | S08-452 A. Paleo Solid-state carbon-based textile supercapacitors for energy storage applications | S04-3 O. Koyuren 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 | S14-244 N. Mys Effects and optimization of processing parameters in fabrication of polyphenylsulfone microspheres via spray drying | S02-357 L. Cardon 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 | S04-122 P. Maji Cellulose nanomaterials: A natural biopolymer as sustainable material for future | 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 | S03-428 V. Lenzi Molecular dynamics simulations of isocyanate-based molecules viscosity |
| 18:00 – 22:00 | POSTER SESSION | | | | | | | |

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| S01 Mixing and compounding |
| S02 Polymer Blends and Alloys |
| S03 Rheology and Process Simulation |
| S04 Functional, Nano and Bio Composites |
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| S06 Injection Molding and Extrusion |
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