



POLYMER MEETING 15 IN BRATISLAVA

September 4 – 7, 2023

SCIENTIFIC PROGRAM

Mo, Sept 4 2023

11.00 – 13.00	Registration		
10.30 – 12.30	Mattek Biotech Company Workshop (Jobs' Software Studio)		
13.00 – 13.20	Opening (Aula Magna)		
	Public lecture Chair: I. Lacik (Aula Magna)		
13.20 – 14.00	R. Lang (<i>Institute of Polymeric Materials and Testing (IPMT), Johannes Kepler University Linz, Austria</i>) Plastics – essential part of the solution in navigating the great industrial transformation The transition to a “sustainable” all-circular plastics & carbon industry		
14.00 – 14.20	Coffee break		
	Plenary session Chair: K. Loos (Aula Magna)		
14.20 – 14.50	PL1: F. Du Prez (<i>CMAc, Ghent University, Belgium</i>) Smart chemical design for bringing thermoset materials in a circular economy		
14.50 – 15.20	PL2: S. Lecommandoux (<i>Laboratoire de Chimie des Polymères Organiques (LCPO), Université de Bordeaux, France</i>) Biomimetic polymersomes as smart functional therapeutics and protocells		
15.20 – 15.40	Coffee break		
	Synthesis Chair: R. Liska (Aula Minor)	Renewable monomers, Biomaterials Chair: D. Pahovnik (Turing Hall)	Renewable monomers Chair: C. Paulik (Babbage Hall)
15.40 – 16.05	IL1: N. Badi (<i>CMAc, Ghent University, Belgium</i>) Synthesis and application of uniform synthetic macromolecules	IL2: J. Mosnacek (<i>Polymer Institute SAS, Slovakia</i>) Functional polymers from renewable monomers	IL3: M. Sangermano (<i>Politecnico di Torino, Italy</i>) Photopolymerization of biobased epoxy monomers
16.05 – 16.30	IL4: E. Tomsik (<i>IMC CAS, Prague, Czech Republic</i>) Acid-assisted polymerization: novel synthetic route of semi-conducting polymer preparation	IL5: S. Baudis (<i>TU Wien, Austria</i>) Macromolecular design of materials for biomedical applications	IL6: H. Benes (<i>IMC CAS Prague, Czech Republic</i>) Polymer materials derived from bio-based dicarboxylic acids
16.30 – 16.45	CL1: F. Mayer (<i>TU Wien, Austria</i>) # Interpenetrating polymer networks for hot lithography with high strength and high toughness	CL2: P. Verdross (<i>University of Vienna, Austria</i>) # Black liquor based thermosets	CL3: L. Pezzana (<i>Politecnico di Torino, Italy</i>) # Bio-based monomers for UV curable thiol-ene formulations
16.45 – 17.00	CL4: R. Mundil (<i>Charles Univ., Prague, Czech Republic</i>) Kinetic investigation of 3-/7-(prop-2-ynyl)oxepan-2-one organocatalyzed (co)polymerization for structure defined macromolecules	CL5: M. Mrlik (<i>UTB, Zlin, Czech Republic</i>) Hierarchic structures based on polysaccharides cross-linked with magneto-responsive particles and their 3D printing	CL6: E. Rossegger (<i>PCCL, Loeben, Austria</i>) Frontal polymerization of dynamic networks
17.00 – 17.25	IL7: K. Bretterbauer (<i>JKU, Linz, Austria</i>) Synthesis and application of charged brush polymers	IL8: K. Velonia (<i>University of Crete, Greece</i>) Hybrid biopolymers for sustainable applications: innovations and challenges	IL9: S. Bednarz (<i>CUT, Cracow, Poland</i>) Itaconic acid: a little-known renewable monomer
17.30 – 19.00	Poster session with beer and snacks (posters available during the entire conference)		

PhD student: eligible for presentation award

Tue, Sept 5 2023

8.00 – 9.00	Registration		
	Plenary session Chair: R. Hutchinson (Aula Magna)		
9.00 – 9.30	PL3: M. Tanaka (<i>Kyushu University, Japan</i>) Design of functional polymeric biomaterials: intermediate water concept for advanced medical devices		
9.30 – 10.00	PL4: K. Loos (<i>University of Groningen, The Netherlands</i>) Unleashing the potential of enzymes for green furan-based polymer synthesis		
10.00 – 10.30	PL5: M. Buchmeiser (<i>University of Stuttgart, Germany</i>) Catalytic polymerizations: from precision polymers to energy materials back to stereo- and regioselective catalysis		
10.30 – 10.55	Coffee break		
	Synthesis Chair: V. Raus (Aula Minor)	Drug carriers Chair: D. J. Ahn (Turing Hall)	Recycling and sustainability Chair: G. Trimmel (Babbage Hall)
10.55 – 11.20	IL10: R. Liska (<i>TU Wien, Austria</i>) New polymer materials by ionic and catalytic photopolymerization using hot lithography	IL11: E. Jäger (<i>IMC CAS Prague, Czech Republic</i>) Tumor microenvironment-stimuli responsive nanomedicines for anticancer therapy	IL12: E. Zagar (<i>Nat. Inst. of Chem., Ljubljana, Slovenia</i>) Chemical recycling of polymers
11.20 – 11.45	IL13: H. Houck (<i>University of Warwick, Coventry, UK</i>) Thermoreversible photocycloadditions: new additions to the designer playground of dynamic polymer networks	IL14: B. Ivan (<i>Res. Centre Nat. Sci., Budapest, Hungary</i>) Novel nanostructured amphiphilic macromolecular assemblies as precursors for nanohybrids and intelligent drug carriers	IL15: P. Alexy (<i>FCHPT STU, Bratislava, Slovakia</i>) Fully biobased compostable blends for wide range of applications
11.45 – 12.00	CL7: S. Kostjuk (<i>Belarusian State Univ., Minsk, Belarus</i>) Alternating copolymerization as a new strategy for the synthesis of polymeric through-space charge-transfer TADF emitters	CL8: S. Letasiova (<i>MatTek, Bratislava, Slovakia</i>) Biotechnologically reconstructed human tissue models addressing requirements of regulators in toxicity testing of chemicals, cosmetics, ingredients and formulations	CL9: U. Kirschnick (<i>MU Leoben, Austria</i>) # Environmental performance comparison of a one-step and two-step compounding and injection molding process using recycled pp and glass fibers
12.00 – 12.15	CL10: K. Saller (<i>JKU Linz, Austria</i>) Challenges of “simple” enzyme-catalyzed polyesterifications	CL11: E. Equy (<i>LCPO Université de Bordeaux, France</i>) # Janus polymersomes: toward self-propelled artificial protocells for drug delivery	CL12: K. Stubenrauch (<i>Borealis Polyolefine, Austria</i>) Applying multiphase polymer design principles for mechanical recycling
12.15 – 12.30	CL13: F. Pashley-Johnson (<i>QUT, Brisbane, Australia</i>) # Unravelling the relationship between spatial confinement and quantum yield in photoreactive sequence-defined oligomers	CL14: G. Heinzmann (<i>Postnova Analytics, Germany</i>) Comprehensive separation and characterization of nanocarrier-drug systems based on polymers and proteins for nanomedical applications	CL15: B. Liedl (<i>TCKT, Wels, Austria</i>) # Characterisation of recovered PET from mixed textile production waste and post-consumer waste textiles
12.30 – 13.30	Lunch		
	Synthesis Chair: H. Houck (Aula Minor)	Biomaterials, biopolymers Chair: S. Baudis (Turing Hall)	Energy storage and conversion, characterization Chair: E. Zagar (Babbage Hall)
13.30 – 13.55	IL16: V. Raus (<i>IMC CAS Prague, Czech Republic</i>) Tailoring complex polymeric architectures	IL17: D. J. Ahn (<i>Korea Univ., Seoul, South Korea</i>) Ice-active macromolecules and assemblies	IL18: G. Trimmel (<i>Graz University of Technology, Austria</i>) Investigations on non-fullerene-acceptor/polymer solar cells

PhD student: eligible for presentation award

13.55 – 14.20	IL19: S. Zapotoczny (<i>Jagiellonian Univ., Krakow, Poland</i>) Conjugated polymer brushes in double-stranded and mixed binary architecture	IL20: R. Luxenhofer (<i>University of Helsinki, Finland</i>) The quest to unravel a novel mechanism in polymer self-assemblies: an order-order transition based on an unusual molecular interaction between hydrophilic and hydrophobic polymer blocks	IL21: M. H. Yoon (<i>GIST, Gwangju, South Korea</i>) Preparation of MXene/PEDOT:PSS composites impregnated with platinum nanoparticles for electrochemical catalysis
14.20 – 14.35	CL16: Y. He (<i>University of Washington in Seattle, USA</i>) # Quantitative comparison of the copolymerization kinetics in catalyst-transfer copolymerization of polythiophenes	CL17: P. Holzmüller (<i>JGU, Mainz, Germany</i>) # Highly versatile platform of CO ₂ -based polycarbonates sourced from natural terpenoids	CL18: D. M. Opris (<i>ETH Zurich, Switzerland</i>) Artificial muscles closer to application
14.35 – 14.50	CL19: P. Utrosa (<i>Nat. Inst. of Chem., Ljubljana, Slovenia</i>) Synthetic polypeptide–polyester polyHIPEs prepared by thiol–ene photopolymerization of macromonomers	CL20: Z. Kronekova (<i>Polymer Institute SAS, Slovakia</i>) Electron beam irradiation as a straightforward way to produce tailorable non-biofouling poly(2-methyl-2-oxazoline) hydrogel layers on different substrates	CL21: F. Leibetseder (<i>JKU, Linz, Austria</i>) # Multifunctional fluorine-free binders for lithium-ion battery cathodes
14.50 – 15.05	CL22: S. Wierzbicki (<i>CUT, Cracow, Poland</i>) # PLP-SEC studies of protic ionic liquid monomers based on methacrylic acid in aqueous and organic solutions	CL23: M. Feuchter (<i>MU Leoben, Austria</i>) Biobased stretch films – the future of packaging?	CL24: A. Nada (<i>Polymer Institute SAS, Slovakia</i>) Significant improvement on electrochemical performance of hydrothermally synthesized NiFe ₂ O ₄ in-situ loaded selectively into graft-polymerized fabric for flexible Al-air batteries
15.05 – 15.30	IL22: W. Kern (<i>University of Leoben & PCCL, Austria</i>) Surface initiated polymerization with germanium based photoinitiators	IL23: L. Vojtova (<i>CEITEC, Brno, Czech Republic</i>) Comparison of injectable and 3D printed composite bone substitutes: from synthesis to applications in animal models	IL24: M. Slouf (<i>IMC CAS Prague, Czech Republic</i>) Micromechanical properties of polymer systems
15.30 – 16.00	Coffee break		
	Plenary session Chair: M. Tanaka (Aula Magna)		
16.00 – 16.30	PL6: S. Hecht (<i>Humboldt-Universität zu Berlin & DWI – Leibniz Institute for Interactive Materials, Aachen, Germany</i>) Xolography for volumetric 3d printing		
16.30 – 17.00	PL7: R. A. Hutchinson (<i>Queen's University, Kingston, Canada</i>) Measurement and modeling of radical polymerization kinetics for process and product development		
17.00 – 17.30	PL8: Y. Men (<i>Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun & University of Science and Technology of China, Hefei, P. R. China</i>) Polymorphous selection and transformation in polyolefins		
17.30 – 19.00	Poster session with beer and snacks (posters available during the entire conference)		

PhD student: eligible for presentation award

We, Sept 6 2023

8.00 – 9.00	Registration		
	Plenary session Chair: H. Frey (Aula Magna)		
9.00 – 9.30	PL9: M. Buback (<i>University of Goettingen, Germany</i>) Detailed radical polymerization kinetics from pulsed laser experiments		
9.30 – 10.00	PL10: A. Anastasaki (<i>ETH Zurich, Switzerland</i>) Modern atom transfer radical polymerization and depolymerization strategies		
10.00 – 10.25	Coffee break		
	Synthesis Chair: N. Badi (Aula Minor)	Biomaterials, Drug carriers Chair: L. Vojtova (Turing Hall)	Characterization and processing, testing Chair: G. Wallner (Babbage Hall)
10.25 – 10.50	IL25: S. Harrisson (<i>LCPO Université de Bordeaux, France</i>) Neither block nor random: controlling comonomer distribution in asymmetric and gradient copolymers	IL26: A. Heydari (<i>Polymer Institute SAS, Slovakia</i>) Polysaccharide derivatives-based biomaterials: from controlled synthesis to biomedical applications	IL27: C. Burgstaller (<i>FHOÖ, Wels, Austria</i>) Applying reactive extrusion to modify polymers for improved compatibility
10.50 – 11.15	IL28: S. Schlögl (<i>PCCL, Leoben, Austria</i>) New catalysts for acid- and base-driven bond exchange reactions in dynamic polymer networks	IL29: M. Hruby (<i>IMC CAS, Prague, Czech Republic</i>) Thermo-, pH-, rechelation- and reactive oxygen species-responsive polymer contrast agents for non-proton magnetic resonance imaging	IL30: S. Podzimek (<i>Wyatt Tech. Europe, Germany</i>) Current status of the determination of molar mass distribution of synthetic and natural polymers
11.15 – 11.30	CL25: S. M. Fischer (<i>CMaC, Ghent University, Belgium</i>) Unlocking the potential of sequence-defined oligourethanes for data encryption and beyond	CL26: C. Strasser (<i>TCKT, Wels, Austria</i>) 3D printing on unidirectional PA6 tapes and their effect on the mechanical properties	CL27: D. Matousek (<i>Optik Instruments, Czech Republic</i>) Breakthrough technologies in FTIR microscopy and their use in the field of polymer analysis
11.30 – 11.45	CL28: F. Pieringer (<i>TU Wien, Austria</i>) Group transfer polymerization in bulk methacrylates	CL29: G. S. García-Briones (<i>IMC CAS, Czech Republic</i>) Polyelectrolyte nanoparticles based on poly[N-(2-hydroxypropyl) methacrylamide- <i>block</i> -poly(N-(3-aminopropyl) methacrylamide)] copolymers for delivery of heparin-binding proteins	CL30: S. Wurzer (<i>Anton Paar GmbH, Austria</i>) Influence of the crosslinking conditions on dynamic mechanical properties of rubber parts
11.45 – 12.00	CL31: S. Gupta (<i>IMC CAS, Prague, Czech Republic</i>) # Rapid (co)polymerization of 2-hydroxyethyl methacrylate by Cu ⁽⁰⁾ -RDRP in a non-polar solvent	CL32: A. Morrissey (<i>QUT Australia</i>) # A bioinspired approach to metal binding interfaces	CL33: C. Marchfelder (<i>JKU, Linz, Austria</i>) # Characterization of the crosslinking kinetics and laminate properties of silane modified epoxy coatings for electrical steel stacks
12.00 – 12.15	CL34: M. Fitzka (<i>TU Wien, Austria</i>) Development of photopolymerizable precursors for self-reinforcing networks for 3D printing	CL35: P. Hajovska (<i>Polymer Institute SAS, Slovakia</i>) # Effect of sterilization conditions on properties of gelMA/alginate bioinks	CL36: A. Hacıoglu (<i>University of Helsinki, Finland</i>) # Tuning LCST behavior of poly(2-ethyl-2-oxazoline) by thionation of amide repeating units
12.15 – 12.30	CL37: K. Ableidinger (<i>TU Wien, Austria</i>) # Dynamic thermoplastic polyurethane ureas as self-reinforcing and biodegradable materials	CL38: Z. Benkova (<i>Polymer Institute SAS, Slovakia</i>) Atomistic molecular dynamics simulations of proteins interacting with PEO-modified surfaces as a potential protective barrier	
12.30 – 13.30	Lunch		

PhD student: eligible for presentation award

	Synthesis, Renewable monomers Chair: S. Harrisson (Aula Minor)	Biomaterials, biopolymers Chair: K. Velonia (Turing Hall)	Testing Chair: C. Burgstaller (Babbage Hall)
13.30 – 13.55	IL31: K. Ehrmann (<i>QUT Australia</i>) Two-in-one photoresist: degradable and non-degradable microstructures from varied laser power	IL32: D. Racko (<i>Polymer Institute SAS, Slovakia</i>) Polymer knots in chiral environments by molecular simulations	IL33: G. Wallner (<i>University of Linz, Austria</i>) Ethylene copolymers – tailor-made materials and laminates for solution of the energy crisis
13.55 – 14.10	CL39: R. Sivkova (<i>IMC CAS, Prague, Czech Republic</i>) Polymer brushes based on N-methacryloxysuccinimide as versatile platform for post-polymerization modification	CL40: F. Mayer (<i>University of Vienna, Austria</i>) # Best of both worlds: Nanocellulose and hypercrosslinked polymer hybrid membranes for simultaneous ultrafiltration and heavy metal ion removal	CL41: H. W. Müller (<i>University of Vienna, Austria</i>) Polymer drag reduction: on the relation of molecular weight and drag reduction in turbulent pipe flows
14.10 – 14.25	CL42: M. Starck (<i>Durham University, UK</i>) Biosourced aromatic diacids in the redesign of soil release polymers	CL43: A. Mautner (<i>BOKU, Vienna, Austria</i>) High-velocity stretching for high-strength renewable polymer blends	CL44: L. Peham (<i>University of Linz, Austria</i>) # Monitoring the pathway of temperature dependent degradation of phenolic stabilizers in PP-R by FTIR spectroscopy
14.25 – 14.40	CL45: L. Shaw (<i>Durham University, UK</i>) Advancing the field of functionalised, bio-derived polymers synthesised by living anionic polymerisation	CL46: S. Dzatko (<i>Polymer Institute SAS, Slovakia</i>) Alginate-based microspheres stabilized by dual covalent and non-covalent crosslinking for potential treatment of diabetes	CL47: M. Micusik (<i>Polymer Institute SAS, Slovakia</i>) 2D MXene as nanofillers in PMMA polymer composites
14.40 – 15.05	IL34: C. Slugovc (<i>TU Graz, Austria</i>) Di- and polyols as monomers in polyaddition reactions	IL35: A. Bismarck (<i>University of Vienna, Austria</i>) Biopolymers from fungi: a simple route to film forming chitin-glucans	IL36: F. Arbeiter (<i>MU Leoben, Austria</i>) Tailoring crack growth behavior in extrusion-based additive manufactured polymers via processing and material control
15.05 – 15.25	Coffee break		
	Plenary session Chair: M. Buchmeiser (Aula Magna)		
15.25 – 15.55	PL11: H. Frey (<i>Johannes Gutenberg-University Mainz, Germany</i>) Replacing poly(ethylene glycol) in medical and pharmaceutical applications: non-immunogenic rPEGs offer intriguing perspectives		
15.55 – 16.25	PL12: C. Luscombe (<i>Okinawa Institute of Science and Technology, Japan</i>) Towards the efficient syntheses of semiconducting polymers		
16.30 – 17.30	Drive to Elesko winery (Dubova, Low Carpathian Region), ~40 km https://www.elesko.sk/elesko-restaurant/		
17:30 – 18:30	Wine Cellars Tours, etc.		
18:30 – 22:00	Banquet dinner		

PhD student: eligible for presentation award

Thu, Sept 7 2023

	Plenary session Chair: F. Du Prez (Aula Magna)		
9.00 – 9.30	PL13: P. Theato (<i>Karlsruhe Institute of Technology (KIT), Germany</i>) Functional polymers: from new synthetic routes to applications in energy storage		
9.30 – 10.00	PL14: K. Matyjaszewski (<i>Carnegie Mellon University, Pittsburgh, USA</i>) Functional (bio)hybrid materials by atom transfer radical polymerization		
10.00 – 10.25	Coffee break		
	Synthesis, Characterization & processing Chair: J. Mosnacek (Aula Minor)	Biomaterials, biopolymers Chair: A. Bismarck (Turing Hall)	Recycling and sustainability Chair: I. Hudec (Babbage Hall)
10.25 – 10.50	IL37: N. Illy (<i>Sorbonne Université, France</i>) Alternating ring-opening copolymerization of thiolactones with epoxides/cyclocarbonates: toward a new family of functional polyesters	IL38: S. Hild (<i>JKU, Linz, Austria</i>) Characterization of biomedical materials on different length scales	IL39: C. Paulik (<i>JKU, Linz, Austria</i>) Chemical recycling of polymers and its effects on olefin polymerization
10.50 – 11.05	CL48: C. Gleissner (<i>LFU Innsbruck, Austria</i>) # Surface modification of single polyamide fibres towards increased wettability	CL49: Y. Catel (<i>Ivoclar Vivadent AG, Liechtenstein</i>) Block copolymers as efficient toughening agents in low crosslink-density dimethacrylate networks	CL50: M. Bredács (<i>PCCL, Loeben, Austria</i>) Multivariate data analyses for improved quality of recycled plastic fractions
11.05 – 11.20	CL51: G. Säckl (<i>JKU, Linz, Austria</i>) # Characterization of ethylene-based encapsulants and their degradation products after damp heat exposure by XPS	CL52: M. Kneidinger (<i>ICP, JKU Linz, Austria</i>) # Injectable and biodegradable two-component poly(organo)phosphazene hydrogel system based on supramolecular reactions with cyclodextrins	CL53: B. Sölle (<i>PCCL, Loeben, Austria</i>) # Bio-based phosphate esters as new transesterification catalysts for green dynamic photopolymer networks
11.20 – 11.35	CL54: H. Svajdlenkova (<i>Polymer Institute SAS, Slovakia</i>) Radical induced cationic frontal polymerization: mapping of microstructure properties along a self-propagating front	CL55: J. Svoboda (<i>IMC CAS, Prague, Czech Republic</i>) Antifouling properties of poly(2-oxazoline)s and poly(2-oxazine)s: direct comparison of polymer-coated surfaces with the same coating parameters	CL56: A. Manian (<i>LFU Innsbruck, Austria</i>) Fate of indigo dye in the recycling of denim through the viscose process
11.35 – 11.50	CL57: D. Kaineder (<i>Competence Center CHASE, Austria</i>) # Rheometrical plate-plate characterization of isotactic polypropylene: influence of sample preparation on molecular degradation in rheometry	CL58: R. Süß (<i>Wood K plus, Linz, Austria</i>) Modification and depolymerization of organosolv lignin - use as a sustainable substitute for phenol in resin production	CL59: G. Zain (<i>Polymer Institute SAS, Slovakia</i>) Biobased amphiphilic polymers as drug carriers prepared by photomediated atom transfer radical polymerization
11.50 – 12.05	CL60: M. Duskova (<i>IMC CAS, Prague, Czech Republic</i>) Hidden phase transition in swollen hydrogels – chemical engines to discover	CL61: A. Fantoni (<i>TU Wien, Austria</i>) # Synthesis and characterization of homogeneous epoxy networks: development of a sustainable material platform using epoxy-alcohol polyaddition	CL62: R. Sesia (<i>Politecnico di Torino, Italy</i>) # UV-cured chitosan-based hydrogels strengthened by tannic acid for the removal of copper ions from water
12.05 – 12.20	CL63: A. Quinteros-Sedano (<i>Université PSL, France</i>) # Modulation of the network connectivity in vitrimers	CL64: A. M. Omar (<i>Polymer Institute SAS, Slovakia</i>) pH-responsive aminated chitosan coated carboxymethyl cellulose composite microbeads for oral drug delivery	CL65: D. Reisinger (<i>PCCL, Loeben, Austria</i>) # Covalent adaptable networks: on-demand activation of dynamic exchange reactions by latent base catalysts
12.20 – 13.20	Lunch		
	Synthesis Chair: N. Illy (Aula Minor)	Synthesis, recycling and renewable monomers Chair: S. Hild (Turing Hall)	Nanocomposites, Drug carriers Chair: M. Hruby (Babbage Hall)
13.20 – 13.45	IL40: O. Brüggemann (<i>JKU, Linz, Austria</i>) Designing functional polymers for medical and pharmaceutical applications	IL41: D. Pahovnik (<i>Nat. Inst. of Chem., Ljubljana, Slovenia</i>) Ring-opening polymerization of n-carboxyanhydrides: From hybrid block copolymers to porous polymers	IL42: Z. Spitalsky (<i>Polymer Institute SAS, Slovakia</i>) Polymer composites with hydrophobic carbon quantum dots for antimicrobial applications

PhD student: eligible for presentation award

13.45 – 14.10	IL43: P. Zinck (<i>Université de Lille, France</i>) Tuning the microstructure of polylactide block copolymers obtained by chain shuttling copolymerization	IL44: K. Bernaerts (<i>AMIBM, Maastricht University, NL</i>) Renewable and UV-curable latexes via polymerization induced self-assembly	IL45: R. Laga (<i>IMC CAS, Prague, Czech Republic</i>) Phosphorus- and fluorine-containing polymers as bio-responsive MR probes
14.10 – 14.35	IL46: P. Knaack (<i>TU Wien, Austria</i>) Frontal polymerization	IL47: M. Smulders (<i>Wageningen University, NL</i>) Phase separation in imine-based covalent adaptable networks	IL48: J. Kronek (<i>Polymer Institute SAS, Slovakia</i>) Gradient copolymers based on poly(2-oxazolines) as a versatile tool for therapeutic applications
14.35 – 14.50	IL49: P. Krajnc (<i>University of Maribor, Slovenia</i>) Porous microspheres via multiple emulsion templating	IL50: M. Pitsikalis (<i>UoA, Athens, Greece</i>) Employing poly(vinyl ethers) as scaffolds for the synthesis of complex macromolecular architectures	
	Plenary session Chair: C. Luscombe (Aula Magna)		
15.00 – 15.30	PL15: D. Haddleton (<i>University of Warwick, Coventry, UK</i>) Flow chemistry for controlled polymerisation and post polymerisation functionalisation – monitoring conversion and MWt by online NMR		
15.30 – 15.40	Closing the conference, poster and presentation awards (Aula Magna)		

Fri, Sept 8 2023

10.00 – 13.00 Bratislava City Tour

PhD student: eligible for presentation award

Poster contributions

- 1 Ch. Biermaier # Percolation efficiency and interface issues of copper plated plain woven lyocell fabrics
- 2 G. Huerta-Angeles pH-sensitive behavior of nanocomposite hydrogels based on poly (itaconic acid)/clay for effective adsorption of methylene blue
- 3 Ch. Schmidleitner # Synthesis and characterization of magnetic photopolymers for nanoimprint lithography
- 4 A. Stepura # HAVOH-based polymeric nanocomposites
- 5 M. Ilcikova Effect of polymer brushes grafted from graphene oxide on rheology of PMMA/SAN blends
- 6 D. Pathiwada # Advanced polymerization techniques in surface engineering
- 7 J. Kovac Polysaccharide-based injectable hydrogels as a scaffolds for cell delivery
- 8 R. Seyed Alian # Dose-dependent effects of quaternized chitosan, GO, and AGNPs on oxidative stress and cell status in *acheta domestica*
- 9 K. Mosnackova Novel fully biodegradable PLA/PHB blends filled with keratin
- 10 K. Tadyszak Phthalocyanine partial oxygen pressure sensor
- 11 L. Musilova Cross-linked gelatine by modified dextran as a potential bioink prepared by a simple and non-toxic process
- 12 F. Kazemi-Aghdam # A minimally invasive implantation platform based on alginate hydrogels mediated by reversible dynamic covalent bonds
- 13 T. Lazou # Protein-polymer conjugates from renewable lignin feedstocks
- 14 M. Buchacher-Kröll # Investigation of the oxidation stages of protein fibres by labelling thiol moieties with Au
- 15 M. Atya Elmeligy Designing a new generation of β -cyclodextrin polymer through cyanoguanidine incorporation
- 16 A. Fantoni # Stimuli-responsive biomaterials: enabling the spatiotemporal micropatterning of photoresponsive hydrogels *via* disulfide-based linkers
- 17 M. Schwaiger # UV-stabilization of linseed oil-based epoxy resin
- 18 S. Sadjadi Digital light processing printing of 3D printed heteropolyacid@metal-organic framework: a promising approach for catalytic applications
- 19 S. Sadjadi Biopolymer encapsulated metal-organic framework/keggin as a multi-task catalyst for cascade reaction
- 20 P. Strasser # Phosphorus as a versatile building block for degradable polymer therapeutics
- 21 A. Minarcikova # Poly(2-isopropenyl-2-oxazoline) as a polymeric drug carrier
- 22 D. Hlavata Nanoparticles based on poly(2-oxazoline)s: characterization and drug delivery in hydrogels intended for cartilage regeneration
- 23 M. Majercikova # Modification of poly(2-isopropenyl-2-oxazoline) with aspirin
- 24 S. Pytlikova # Polymer-pirarubicin nanomedicines employing hydrophilic methacrylamide copolymers
- 25 R. Ghonim Design of sulfonated polystyrene grafted cellulose acetate membrane for direct methanol fuel cells
- 26 O. Tooley # MaDDOSY: Mass Determination Diffusion Ordered Spectroscopy on the bench top

PhD student: eligible for poster award

- 27 M. Gleirscher # Development and characterization of functional coatings to improve the friction behavior of thermoplastic surfaces
- 28 B. Zdovc # Method for characterization of end-group functionality of recycled polyether polyols recovered from flexible polyurethane foams
- 29 D. Bautista # Development of reprocessable adhesive systems for carbon and glass fiber reinforced polymer applications
- 30 K. Plevova # Exploring crystallinity in polymers blends on nanoscale
- 31 N. Moser # Influence of orientation of the filler on the thermal conductivity of injection molded polymer heat sinks compared to 3D printed polymer heat sinks
- 32 Ch. Angerer # Microscopic characterization of interfaces in additive manufactured (3D printed) multi-component samples
- 33 J. Navratilova Morphology and properties of annealed beta-nucleated polypropylene
- 34 D. Jaska # Crystallization of polypropylene with silanized silica
- 35 F. Mamon # Creating of cheap geopolymer coatings based on alkali-activated metakaolin on metal substrates
- 36 J. Mares # Comparison of adhesion on alkali-activated metakaolin geopolymer coatings on metal substrates
- 37 D. Elumalai Supercritical CO₂ assisted foaming of polymer nanocomposites – insights into the addition of nano and micro fillers
- 38 I. Ismael # Polyester networks based on ϵ -caprolactone and renewable tulipalin A
- 39 M. Kovacova Hollow conductive fibers from melt electrospinning
- 40 G. Abilova Production and characteristics of films based on gellan and poly(2-ethyl-2-oxazoline) for eye drug delivery
- 41 J. Lang # Copolymerization of epoxyeugenol and bisphenol A diglycidyl ether
- 42 J. M. Uher # Sequential dual-curing of electron-deficient olefins and alcohols relying on oxa-Michael addition and anionic polymerization
- 43 M. Kaiser # Combining chain flexibility and covalent bonding: polyether prepolymers for elastic thermoset adhesives
- 44 V. Mueller # Biocompatible thermoplastic elastomers by combining rPEG and polylactide
- 45 T. Dinh # Aliphatic metal-chelating hydroxamic acid-functionalized polymethacrylates via RAFT-polymerization
- 46 T. Gab # Block copolymer electrolytes combining polystyrene and amorphous poly(ethylene oxide-co-glycidyl methyl ether)
- 47 D. Schulz # Synthesis and functionalization of polyethylene glycol (PEG) isomers: reinventing a well-known polymer
- 48 Y. Xu # Functionally graded polyHIPEs with controlled compositions
- 49 F. Mayer # Novel radical photoinitiators based on germanium with long wavelength absorption for high curing depth
- 50 K. Ableidinger # Novel photoinitiator systems for step-growth polymerization
- 51 I. Ivanova Swelling behaviour of newly synthesized pH-sensitive grafted polymer
- 52 F. Pieringer # Cyclopolymerization as versatile tool in photopolymerization towards low shrinkage behavior
- 53 S. Kapeller # Acrylamide based organogel electrolytes
- 54 S. M. Elbayomi Surface modified cellulose nanocrystals as fillers for polylactide/poly (hydroxybutyrate) based composites

PhD student: eligible for poster award

- 55 D. Pindric # Alternative co-catalysts for the Ziegler-Natta catalysis
- 56 N. Babaei # Synthesis of graphene oxide particles grafted with poly (trifluoroethyl methacrylate) through surface-initiated atom transfer radical polymerization for tribology applications
- 57 M. Fitzka # Synthesis of ultrasound-responsive hydrogels based on poly(2-oxazoline)s as drug delivery system and their sonorheological investigation
- 58 M. Cvek ZnO as the versatile co-catalyst for oxygen-tolerant external ATRP
- 59 G. Linden # Poly(terpenyl glycidyl ethers): copolymerization with ethylene oxide, properties, and functionalization
- 60 D. Kubies Charge-shifting polycation poly(dimethylaminoethyl acrylate): synthesis and hydrolytical stability
- 61 M. Gurska # Synthesis of bromide initiators based on naphthaleneimide and their application as initiators in photo-ATRP
- 62 S. K. Lenka # Functional polymers from renewable monomers
- 63 Ch. P. Sagita # Flow reactor as an improvement in oxygen-tolerant ATRP for PISA and other copolymers synthesis
- 64 S. Diendorfer # Photo-induced catalytic curing of isocyanates
- 65 D. Fuchs # Synthesis of novel α -hydroxyacids modified poly(methacrylate) copolymers for the use as drug coatings
- 66 B. Liedl # Recycling of multilayer film components by cryogenic separation
- 67 T. Höftberger The influence of multiple recycling rounds on the mechanical properties, the melt-flow-rate, and oxidation induction time of PP-cellulose short fiber-compounds
- 68 S. Czaker # Yogurt cup recycling – effects of different washing programs on VOC emission
- 69 M. Grdadolnik # Chemical recycling of flexible polyurethane foams by acidolysis
- 70 M. Bergoglio # Sustainable bio-based UV-cured epoxy vitrimer from castor oil
- 71 L. Graf # Screening of enzyme-catalyzed polycondensation of bio based monomers in solution
- 72 G. Riedl # Crosslinking kinetics and adhesion properties of polyolefin elastomers for photovoltaic module encapsulation
- 73 M. Tiefenthaler # Failure mechanisms of aged glass laminates based on polar ethylene copolymer film adhesives
- 74 M. Ninou Codina # Improved environmental fatigue resistance of electrical vehicle laminates by substrate pre-treatment
- 75 D. Ostner # Application of DSC and ATR-IR to the textile waste stream as an input for pet recycling
- 76 L. Haiden # Lateral force microscopy investigation of nanoparticle and thin film bonding properties onto carbon fibers
- 77 M. Huszar # The influence of roughness on nanoindentation for testing of local mechanical properties
- 78 L. Brandfellner # Viscous or elastic – characterizing polymer behavior in turbulent flow
- 79 D. G. Mascher HPLC Determination of Polymers
- 80 M. Puskar In vitro reconstructed 3D model of human small intestine epithelium for assessment of substance bioavailability and safety
- 81 P. Machata Modified surfaces on thin films of Al and Ag black metals for gas sensing applications: XPS and contact angle study

PhD student: eligible for poster award

82 S. Wurzer

Company presentation Anton Paar

83 R. Ismail

Sequential in-situ growth of device based on thiophene for optoelectronic applications