



Polycondensation 2024

<https://polycond-2024.sciencesconf.org/>

Scientific Program



Bronze :



Silver :



ARKEMA

Gold :



Sunday, 15th September 2024		
14h-16h		Registration
16h-16h20		Opening Session
16h20-16h30		Institut Carnot Presentation
16h30-17h15	Christine Luscombe (OIST, Japan)	Controlling Polycondensation Reactions: A Case Study in Semiconducting Polymer Synthesis.
17h15-18h	Tim Long (Arizona State University, USA)	3D Printing High Performance Engineering Polymers: From Aliphatic Polyesters to Aromatic Polyimides
18h-18h25	Dennis Smith (Mississippi State University, USA)	A Tale of two Step-Growth Cyclopolymerizations. Synthetic Approaches to semi-Fluorinated Polyaryl Ethers and Carbon-Carbon Composite Technology
18h30-18h55	Hans Kricheldorf (University of Hamburg, Germany)	Reversible Polycondensations and the Jacobson-Stockmayer Theory



Monday, 16 th September 2024

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8h15-9h	Mikhail Zolotukhin (Universidad Nacional Autonoma de Mexico-UNAM, Mexico)	Superacid-Catalyzed Polycondensation: State of the Art and Future Challenges
9h-10h15	Shinji Ando (Tokyo Tech, Japan)	Large-Stokes-shifted Dual Photoluminescence of Thianthrene-containing Imide Compounds and Polyimides Undergoing Transient Conformational Changes
	Teruaki Hayakawa (Tokyo Institute of Technology), Japan)	Design and Creation of Silicon-containing Polyimides for Enhanced Low-Dielectric Properties
	Anne Jonquière (Université de Lorraine, France)	Controlled Grafting of Segmented Copolymers for CO ₂ Capture
10h15-10h35		Coffee Break
10h35-12H40	Alberto Tena (University of Valladolid, Spain)	High-Performance Materials for the Upcoming Gas Separation Applications
	Monica De la Viuda (University of Valladolid, Spain)	Towards more Sustainable Solvents in the Synthesis of Polyimides
	Irina Butnaru (Petru Poni Institute, Romania)	Hybrid Polyimide Materials for Flexible Electrodes
	Haonan Liu (Tokyo Institute of Technology, Japan)	Dielectric Properties of Various Polyimides in the mm Wave Range
	Larissa Alexandrova (UNAM, Mexico)	Polymers with Bulky Pendant Groups: Thermally Rearranged (TR) Polybenzoxazoles and Polybenzimidazoles.
12h40-13h	Claudio Toncelli (Kermel, France)	The Kermel Px: A Modular Concept in the Development of Intrinsically Fire-Resistant Fibers
13h00-14h00		Lunch



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14h-14h45	Steven Holdcroft (Simon Fraser University, Canada)	Ion-Conducting Condensation Polymers for Renewable Energy
14h45-16h	Benny Freeman (University of Texas, USA)	Disulfonated Poly(arylene ether sulfone)s as Desalination Membranes: A Tribute to Jim McGrath
	Theo Dingemans (University of North Carolina, USA)	Main-Chain Liquid Crystal Polyelectrolytes: A Versatile Class of Functional Building Blocks
	Chulsung Bae (Rensselaer Polytechnic Institute, Troy USA)	Ion-conducting Polymers: Synthesis, Properties, and Membrane Applications in Electrochemical Technologies
16h-16h20		Coffee Break
16h20-18h	David Aili (Technical University of Denmark)	Tetrazole Functionalized Poly(arylene alkylene)s for Alkaline Water Electrolysis
	Baptiste Bach (LEPMI, Grenoble, France)	Design of High-Performance Anion-Exchange Membrane for Fuel Cells
	Enoc Cetina Mancilla (UNAM, Mexico)	Novel Aromatic Polymers with Rigid Kink-structured Backbones for Gas Separation
	Maxime Gondrexon (CEA Grenoble, France)	In-situ Condensation Reactions into a Proton Exchange Membrane thanks to SG Chemistry and their Impact on Functional Properties
18h-18h25	Patil Dadasaheb (Sabic, Indiana, USA)	Effects of Novel Reactive Polyetherimide Oligomers on Thermal and Mechanical Properties of Epoxy Resins
18h25-19h25		Poster session



Tuesday, 17 th September 2024

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8h15-9h	Neil McKeown (University of Edinburg, Scotland)	Making Polymers of Intrinsic Microporosity (PIMs) using Step-Growth Polymerisations
9h-10h15	Mitsutoshi Jikei (Akita University, Japan)	Synthesis of Hyperbranched Polymers using Asymmetric B3 Triamine
	Kim Sang Youl (Korean Advanced Institute of Science and Technology, South Korea)	Shape-controlled Porous Polymers by A2 + B3 Polycondensation
	Tsutomu Yokozawa (Kanagawa University, Japan)	Synthesis of Hyperbranched Polymers with high DP and 100% DB from A2 +B3 Polycondensation without Gelation
10h15-10h35		Coffee Break
10h35-12h15	Daniel Knauss (Colorado school of Mines, USA)	Oxalixarene Monomers and their Incorporation into Polymers by Polycondensation
	Michael Werth (Arkema, France)	Synthesis of new Polyphthalamides employing Biosourced Furane-dicarboxylic Acid Monomers
	Maria-Dana Damanescu (Petru Poni Institute, Romania)	Investigation of Polyamides based on ProDOT towards the Use in Energy Storage Smart Windows
	Katrina Knauer (National Renewable Energy Laboratory, USA)	Innovative Design of Fully Recyclable, All-Polyester Based Multi-Layer Films
12h15-13h35		Lunch



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13h35-14h20	Ruud Rulkens (Envalior, Netherlands)	Innovations in Solid-State Polycondensation
14h20-15h35	Cor Koning (Covestro, Netherlands)	Bio-Degradable, Fully Bio-Based, Thermally Cross-linked Superabsorbent Polymers
	Klara Saller (Johannes Kepler University, Linz, Austria)	From Basic Reactivity Studies to Functional Hydrophilic Polyester Materials
	Vincenzo Taresco (Uniniversity of Nottingham, UK)	Synthesis of Water-Soluble Surfactants using Catalysed Condensation Polymerisation in Green Reaction Media
15h35-15h55		Coffee Break
15h55-17h35	Andreia Sousa (University of Aveiro, Portugal)	From Biobased Monomers to Polymers and Back Again: Sustainable Approaches to Furan-Based Polyesters and Recycling
	Agata Zubkiewicz (University of Szczecin, Poland)	Functional Properties of New Aromatic-Aliphatic Copolymers based on 2,5-Furandicarboxylic Acid
	Jing Wu (Donghua University, China)	Superior Biobased Polycarbonates and Polyurethanes based on Isohexides
	Douglas Hayden (Covestro, Netherlands)	Waterborne Sulfopolyesters as Alcohol-Resistant Coatings for Packaging
17h35-17h45		Polycondensation 2026 Presentation
		Gala Dinner



Wednesday, 18 th September 2024		
8h15-9h	Siva Chinta (Sabic, Texas-USA)	Polycondensation Nurturing Polyolefin Circularity
9h-10h15	Jim Hedrick (IBM, USA)	Catalyst Development for Polymerization and CO ₂ Capture, Storage and Upcycling to High Value Step-Growth Materials
	Tae-Lim Choi (ETH, Zurich, Switzerland)	Dual Catalytic Direct Arylation Polycondensation
	Jeffrey Pyun (University of Arizona, USA)	Polymerizations with Elemental Sulfur and Commodity Sulfur Chemicals for Next Generation Plastic Optics
10h15-10h35		Coffee Break
10h35-12h15	Nathaniel Park (IBM, USA)	Leveraging Foundational AI Models for Polymer Design
	Vaidya Ramakrishnan (Sabic, Netherlands)	Designing the Next Generation of Polymers with Data-Driven and Physics-Based Approaches
	Marc Abadie (University of Montpellier, France)	Can we Predict the Mesh Size of Thermoset Structures? Assessment or Reality ?
	Alexander Shaplov (LIST, Luxemburg)	Control of Dioxaborolane Vitrimers stabilization with N-containing Tailored PolyHydroxyUrethanes
12h15-13h35		Lunch



Wednesday, 18 th September 2024

13h35-14h50	Yoan Simon (Arizona State University, USA)	Unexpected Inverse Relationship between Glass Transition Temperature and Crosslink Density in UV-cured Thiol-Ene Networks: Effect of Adding Solvent
	Lucas Polo Fonseca (POLYMAT, Spain)	Sequential Thiol-Michael/-ene Polymerizations for O ₂ -Resistant Thermo-Switchable Pressure-Sensitive Adhesives with improved Network Topology and Phase Behavior
	Serkan Unal (Sabanci University, Istanbul, Turkey)	Tailoring the Architecture of Waterborne Polyurethanes for Functional Coatings and Adhesives
	Nichollas Guimaraes Jaques (Bordeaux University, France)	Melt Transurethanization as a Route to more Sustainable Thermoplastic Polyurethanes
14h55-15h20		Concluding Remarks

