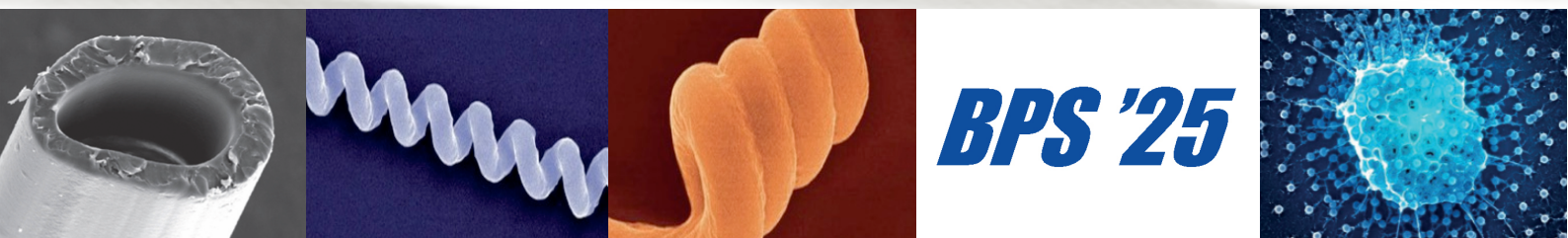


# 19<sup>th</sup> Biennial Bayreuth Polymer Symposium



September 21 - 23, 2025  
Bayreuth, Germany

Registration to **BPS '25** is still open.  
Visit [www.bps-bayreuth.de](http://www.bps-bayreuth.de)

## Conference Program

Sunday, September 21, 2025	
16:00 – 19:30	Registration (Building NWII)
	Plenary Session (Lecture Hall H 18)
17:45 – 18:00	Opening Remarks
18:00 – 18:45	01 Frank Caruso, The University of Melbourne “Nanoengineering Biomaterials: From Assembly to In Vivo Delivery and Function”
18:45 – 19:30	02 Rainer Haag, Freie Universität Berlin “Functional Hydrogels from Natural Resources”
19:30	“BPS”: Beer, Pretzels, Sausages (Foyer, Building NW II)

**Venue:** University of Bayreuth | Building NW II | Universitätsstr. 30 | D-95447 Bayreuth

## Monday, September 22, 2025

	<b>General Session I</b> (Lecture Hall H 18) Chair: Markus Retsch	
08:30 – 09:00	<b>03 Markus J. Buehler</b> , Massachusetts Institute of Technology <i>"Bioinspired superintelligence for scientific discovery"</i>	
09:00 – 09:30	<b>04 Monika Schönhoff</b> , University of Münster <i>"Ion transport mechanisms in polymer electrolytes elucidated by NMR methods"</i>	
09:30 – 10:30	<b>Introduction to Posters - Session I</b> Chair: Markus Retsch	
10:30 – 11:15	<b>Poster Discussion, Coffee Break</b>	
	<b>General Session II</b> (Lecture Hall H 18) Chair: Seema Agarwal	<b>General Session III</b> (Lecture Hall H 19) Chair: André Gröschel
11:15 – 11:45	<b>05 Susanta Banerjee</b> , Indian Institute of Technology Kharagpur <i>"Design and Preparation of Sulfonated Heteroaromatic Polymers: Evaluation of Proton Exchange Membrane Properties"</i>	<b>08 Jiayin Yuan</b> , Stockholm University <i>"Poly(1,2,4-triazolium)s as a rising generation of functional poly(ionic liquid)s"</i>
11:45 – 12:15	<b>06 Zhikang Xu</b> , Zhejiang University <i>"Modulating the Interfacial Polymerization for Advanced Membranes: From Alkane-Water Interface to Alkane-Ionic Liquid Interface"</i>	<b>09 Todd Emrick</b> , University of Massachusetts Amherst <i>"Synthetic Functional Polymers Designed for Aqueous Assembly and Dynamic Interfaces"</i>
12:15 – 12:45	<b>07 Alex Plajer</b> , University of Bayreuth <i>"Recoverable Fluorination Accelerates Ring-Opening Copolymerisation and Enables Post-Polymerisation-Modification of Polyesters"</i>	<b>10 Bela Ivan</b> , HUN-REN Research Centre for Natural Sciences <i>"Amphiphilic conetworks as bicontinuous nanophasic polymer assemblies: from synthesis to poly(ionic liquid) gels, intelligent drug carriers and highly active nanohybrid catalysts"</i>
12:45 – 14:00	<b>Lunch Break</b> (Mensa)	
	<b>Special Session I</b> (Lecture Hall H 18) <b>Topic</b> CRC MultiTrans Chair: Jürgen Senker	<b>General Session IV</b> (Lecture Hall H 19) Chair: Meike Leiske
14:00 – 14:30	<b>11 Christian Müller</b> , Chalmers University of Technology <i>"Benign Synthesis and Structure-Property Relationships of Organic Mixed Conductors"</i>	<b>15 Richard Hoogenboom</b> , Ghent University <i>"Strong and tough single network hydrogels"</i>
14:30 – 15:00	<b>12 Marisol Martin-González</b> , Instituto de Micro y Nanotecnología <i>"Architected 3D Polymer Nanonetworks: Template-Guided Design for Advanced Mechanical, Optical, and Triboelectric Functionality"</i>	<b>16 Hans Börner</b> , Humboldt University of Berlin <i>"Going Green with Thiol-Catechol Connectivities: (Re)New(able) adhesives for bonding and electrochemical debonding"</i>
15:00 – 15:30	<b>13 Jana Zaumseil</b> , Heidelberg University <i>"Polymer-sorted and p-Doped Semiconducting Single-Walled Carbon Nanotubes for Thermoelectrics"</i>	<b>17 Ian Teasdale</b> , Johannes Kepler University Linz <i>"Inorganic building blocks in Polymer Chemistry: Unlocking Dynamic and Cleavable Covalent Polymer Networks"</i>
15:30 – 16:00	<b>14 Christiane Helm</b> , University of Greifswald <i>"Highly Electrically Conductive PEDOT: PSS Films via Layer-By-Layer Electrostatic Self-Assembly"</i>	<b>18 Kay Saalwächter</b> , Martin-Luther-University Halle-Wittenberg <i>"Solid-State NMR Studies of Intracrystalline Chain Dynamics in Ketone-Functionalized Polyethylene"</i>
16:00 – 16:45	<b>Poster Discussion, Coffee Break</b>	
	<b>General Session V</b> (Lecture Hall H 18) Chair: Andreas Greiner	
16:45 – 17:15	<b>19 Bettina Gerharz-Kalte</b> , Evonik Operations GmbH <i>"The creation of circular supply chains: Chances, Complexities and Challenges"</i>	
17:15 – 17:45	<b>20 Bernhard Schartel</b> , Bundesanstalt für Materialforschung und -prüfung (BAM) <i>"Flame Retardancy Features Sustainability Food for Thought, Fake Fiction, and Future"</i>	
17:45 – 18:15	<b>21 Bernhard van Vacano</b> , BASF SE <i>"Taking Plastics Circularity from the Lab to the Market"</i>	
19:00 – 20:30	<b>Reception and Concert at Villa Wahnfried, Richard-Wagner-Str. 48, 95444 Bayreuth</b> <i>Bus transfer to Villa Wahnfried at 18:45, Infopoint 6</i>	

## Tuesday, September 23, 2025

	<b>General Session VI</b> (Lecture Hall H 18) Chair: Christopher K�nneth	
09:00 – 09:30	<b>22 Juan de Pablo</b> , New York University <i>“Computational design and discovery of polymeric materials: How did we get here, and where are we going?”</i>	
09:30 – 10:30	<b>Introduction to Posters - Session II</b> Chair: Christopher K�nneth	
10:30 – 11:15	<b>Poster Discussion, Coffee Break</b>	
	<b>Special Session II</b> (Lecture Hall H 18) <b>Topic</b> AI in polymer Science Chair: Johannes C. Brendel	<b>General Session VII</b> (Lecture Hall H 19) Chair: Alex Plajer
11:15 – 11:45	<b>23 Melody Morris</b> , University of Massachusetts Amherst <i>“High-throughput Enzymatic Depolymerization for Accessible and Sustainable Polymer Engineering”</i>	<b>26 Gustavo Fern�ndez</b> , University of M�nster <i>“Supramolecular Polymorphism of <math>\pi</math>-extended metal complexes”</i>
11:45 – 12:15	<b>24 Alexander Wittemann</b> , University of Konstanz <i>“AI opens up new avenues in the morphological analysis of complex polymer particles”</i>	<b>27 Wallace Wong</b> , University of Melbourne <i>“Upconversion with Conjugated Polymer Emitters”</i>
12:15 – 12:45	<b>25 Christopher K�nneth</b> , University of Bayreuth <i>“Generative polymer informatics accelerates and improves polymer science”</i>	<b>28 Theo Dingemans</b> , University of North Carolina at Chapel Hill <i>“Main-Chain Liquid Crystal Polyelectrolytes: Unlocking New Functionalities in Soft Materials”</i>
12:45 – 14:00	<b>Lunch Break</b> (Mensa)	
	<b>General Session VIII</b> (Lecture Hall H 18) Chair: Holger Ruckd�schel	<b>General Session IX</b> (Lecture Hall H 19) Chair: Georg Papastavrou
14:00 – 14:30	<b>29 M. Reza Nofar</b> , Istanbul Technical University <i>“Advances in PLA/PBAT Blending Strategies for Bioplastic Applications”</i>	<b>33 Zhengwei Mao</b> , Zhejiang University <i>“Dry Crosslinking Protein Patches via Molecular Self-Assembly for Rapid and Biocompatible Hemostatic Sealing”</i>
14:30 – 15:00	<b>30 Friederike Adams</b> , Technical University of Munich <i>“Functional Polyesters from Bio-Based Lactones: Ring-Opening Polymerization using Yttrium Initiators and Functionalization Approaches”</i>	<b>34 Kevin Neumann</b> , Radboud University <i>“Poly(ylides): A new class of overall charge-neutral hydrophilic polymers”</i>
15:00 – 15:30	<b>31 Thomas Thurn-Albrecht</b> , Martin-Luther-University Halle-Wittenberg <i>“Intra-crystalline chain diffusion, semicrystalline morphology and mechanical modulus of selected aliphatic polyesters”</i>	<b>35 Ben Xu</b> , Northumbria University <i>“Soft matter based Wound Healing Material”</i>
15:30 – 16:00	<b>32 Jens G�itzsch</b> , Leibniz Institute of Polymer Research Dresden <i>“A Light and Supercritical Way to Promote Radical Ring-Opening Polymerisation of Cyclic Ketene Acetals”</i>	<b>36 Johannes C. Brendel</b> , University of Bayreuth <i>“Engineering Supramolecular Polymer Materials to Modulate Biointeractions”</i>
16:00 – 16:45	<b>Poster Discussion, Coffee Break</b>	
	<b>General Session X</b> (Lecture Hall H 18) Chair: Thomas Scheibel	
16:45 – 17:15	<b>37 Maria Santore</b> , University of Massachusetts Amherst <i>“Tension- and Curvature- Templated 2D Crystal Growth in Biomimetic Lamellar Membranes”</i>	
17:15 – 17:45	<b>38 S�bastien Perrier</b> , University of Warwick <i>“Therapeutic Materials via Molecular Engineering”</i>	
17:45 – 18:15	<b>39 Michael Bockstaller</b> , Carnegie Mellon University <i>“Acceleration and Amplification of Self-Healing in Brush Particle-Based Hybrid Materials”</i>	
18:15 – 18:45	<b>Poster Awards, Concluding Remarks</b>	
19:30	<b>Conference Dinner at Restaurant “Hotel Arvena Kongress”, Eduard-Bayerlein-Stra�e 5 a, 95445 Bayreuth</b> <i>Bus transfer to Restaurant “Hotel Arvena Kongress” at 19:00, Infopoint 6</i>	