

## Tentative Program

5<sup>th</sup> International Conference on

# ADVANCED POLYMER SCIENCE AND ENGINEERING

October 23-25, 2024 | Athens, Greece

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## Keynote Presentations

Biodegradable Polymers Application in Medicine, Packaging and Environmental Areas of Human Activities

**Alexey Iordanskii** , *Semenov Research Center of Chemical Physics, Russian Federation*

Temperature Cycles limits of PCT-Based Smart Heaters from Conductive Polymers

**Petr Spatenka** , *Czech Technical University in Prague, Czech Republic*

Yet to be Updated

**Eri Yoshida** , *Toyohashi University of Technology, Japan*

No Longer a Pipe Dream? Green Cationic Polymerization

**Stewart Lewis** , *Pyramid Polymers, United States*

Yet to be Updated

**Alberto Garcia-Penas** , *Institute of Chemistry and Materials Technology, Spain*

TPEs for Use in the Energy Sector

**Richard Spontak** , *North Carolina State University, United States*

Yet to be Updated

**Ahmed Hegazi** , *National Research Center, Egypt*

Yet to be Updated

**James Hedrick** , *IBM Almaden Research Center, United States*

Yet to be Updated

**Anastassia Rissanou** , *National Hellenic Research Foundation, Greece*

## Invited Talks

Computer Simulations of Polymer/Graphene Oxide Composites

**Kostas Karatasos** , *Aristotle University of Thessaloniki, Greece*

Polymer Nanocomposites: Structure, Dynamics and Properties

**Kiriaki Chrissopoulou** , *FORTH/IESL, Greece*

Hybrid Polymeric Nanostructures from Synthetic Polymers and Biological Macromolecules

**Stergios Pispas** , *National Hellenic Research Foundation/Theoretical and Physical Chemistry Institute, Greece*

Backbone-Photodegradable Polymers

**Maria Vamvakaki** , *University of Crete, Greece*

Water Effects in Amphiphilic Block Copolymers with Thermoresponsive Behavior

**Apostolos Kyritsis** , *National Technical University of Athens, Greece*

Self-assembled Biopolymer Nanostructures for Applications in Food Technology and Biomedicine

**Aristeidis Papagiannopoulos** , *National Hellenic Research Foundation, Greece*

Hierarchical Multiscale Modelling Schemes for Polymer Systems and Molecular Simulation Methods for the Study of Gas Sorption and Diffusion in Polymer Matrices

**Niki Vergadou** , *National Centre for Scientific Research "Demokritos", Greece*

Connectivity-altering Monte Carlo in Polymer Melts: An Overview and Perspective

**Loukas D. Peristeras** , *National Centre for Scientific Research "Demokritos", Greece*

## Oral Presentations

Manufacture of Cellulose- and Lignin-based Polymeric Biomaterials from Rice Straw for Use in the Footwear Industry

**Henoc Perez** , *INESCOP, Spain*

Synthesis and Characterization of Statistical and Block Copolymers of Various Isocyanates via Coordination Polymerization

**Marinos Pitsikalis** , *National and Kapodistrian University of Athens, Greece*

Smart Nanostructured Materials as Drug Delivery Carriers to Treat Cancer, Kidney and Cardiovascular Diseases

**Hermis Iatrou** , *National And Kapodistrian University Of Athens, Greece*

Hydrogels and Nanogels for Biomedical Applications

**Nikolaos Politakos** , *National Hellenic Research Foundation, Greece*

Spiropyran-Merocyanine-Based Photoswitchable Polymer Systems

**Vadim Annenkov** , *Limnological Institute Siberian Branch of Russian Academy of Sciences, Russian Federation*

Facile Design of Libraries of Multi-functional Copolymers Based on Dialkylamino-derivatives

**Zacharoula Iatridi** , *Department of Materials Science, University of Patras, Greece*

Designing a Conceptual Model for the Digital Transformation of Digital Sports Businesses in the Era of Maturity

**Arman heidari** , *University of Kurdistan, Iran*

Breaking the Classic Boundary of Shape Memory Polymers with Dynamic Network Design

**Tao Xie** , *Zhejiang University, China*

Application of Flexible Tools in Magnesite Sector: The Case of Grecian Magnesite

**Christos Evaggelou** , *CERTH/CPERI, Greece*

Biocompatible Drug Delivery Systems Able to Co-deliver Antimicrobial and Anticancer Agents

**Daniela Ailincai** , *"Petru Poni" Institute of Macromolecular Chemistry, Romania*

Thermoresponsive Polymer Drug Conjugates for Precision Oncology

**George Pasparakis** , *University of Patras, Greece*

Multiphase Materials for 3D Printing Technology

**Jan Sezemsky** , *Czech Technical University in Prague, Czech Republic*

Optimizing Miniemulsion Parameters for Controlled ATRP Polymerization: A Study on Stability and Surfactant/Ligand Effects

**Ahmad Shaaban** , *Egyptian Petroleum Research Institute (EPRI), Egypt*

Graphene Oxide Concentration Effect on in-situ PANI Polymerization

**Sara Djelamda** , *Mohamed cherif messaadia university of Souk Ahras , Algeria*

Synthesis and Characteristics of (PbO-Ag)-PMMA Nano Composite and Use it for Artificial Limbs

**Rashid Hashim Jabbar** , *Ministry of Science and Technology, Iraq*

Exploring the Collective Pushing Phenomenon Through the Lens of the Exclusion Process

**Ngo Phuoc Nguyen Ngoc** , *Duy Tan University, Viet Nam*

Multifunctional Epoxy/Graphene Nanoplate Composites: A Decade of Advancements

**Jun Ma** , *University Of South Australia, Australia*

Porous Alumina–Lithium Composites for Novel Lithium-ion Batteries

**Ahmad Hakamy** , *Umm Al-Qura University, Saudi Arabia*

Production of Cellulose Films as Packaging

**Ene Awodi** , *Durban Unicersity of Technology, South Africa*

Polymers Tribology in Food Packaging Equipment

**Silvia Rossi** , *Tetra Pak, Italy*

Fracture Load of Ultrathin Occlusal Veneers: Effect of Thickness and Surface Conditioning

**Maged Zahran** , *Mansoura University, Egypt*

Evaluation of the Effect of Controlling Crosslinking Agent on the Kinetic and Mechanical Properties of a 3D Printable Dual Curing Epoxy/Acrylate System

**Armando Escriba Flores** , *Universitat Rovira i Virgili, Spain*

Wound Sealing Polymers

**Ashrit Nair** , *Indian Institute of Technology, Delhi, India*

Nitrile Gloves: Potential Use of Pseudomonas aeruginosa for Biodegradation

**Javier Alejandro Delgado-Nungaray** , *University of Guadalajara, Mexico*

The Effects of Hydrogel Type on the Kinetics of Dehydration Process

**Jelena Jovanovic** , *Institute of General and Physical Chemistry, Yugoslavia*

Superhydrophobic Polymer Nanocomposite Surfaces as Eco-friendly Marine antifouling Coatings

**Mohamed Sayed Selim** , *Egyptian Petroleum Research Institute (EPRI), Egypt*

Depolymerization of Different Structures of Polyurethane by Under Pressure Alcoholysis

**Jeanson Natacha** , *Institut de Recherche de Chimie Paris, France*

Natural Gum Based Hydrogel as Potent Dye and Metal ion Adsorbent

**Veena Joshi** , *HNB Garhwal University, India*

Introducing the Tailored Design of Polymers

**Yianourakou Marianna** , *Materials Design, Sarl, France*

Identifying Relationships between Hybrid Carrageenan Chemical Structures and the Viscoelastic Properties of the Formed Hydrogels

**Loic Hilliou** , *Institute for Polymers and Composites/University of Minho, Portugal*

Plasma-Synthesized Pyrrole-Derived Polymer Evolution Implanted in Rhesus Monkey Spinal Cord Transection Model

**Axayacatl Morales-Guadarrama** , *Universidad Autónoma Metropolitana Iztapalapa, Mexico*

Use of Analytical Techniques in the Study of an Industrial Metal-Polymer Surface Segregation Problem

**Joshua Cunday** , *Newcastle University, United Kingdom*

Effect of h-BN and m-BN nanosheets on Gas barrier and Weather resistance properties of Thermoplastic Polyurethane

**Rishabh Tiwari** , *IIT Delhi, India*

Sustainable Hydrogel Development: Changing Phase in a Fast-growing Application for Contaminant Remediation

**Kamalakanta Sahu** , *Indian Institute of Technology Delhi, India*

## Poster Presentations

Technical, Environmental, and Safety Aspects of Producing Colloidal Lignin Particles on the Pilot Scale

**Elham Khalati** , *Aalto University School of Chemical Engineering, Finland*

Colorless and Soluble High-performance PFAS-free Polyimides from Aliphatic Anhydrides

**Sara Greco** , *Valsynthese, Switzerland*

Photo- and pH-Sensitive Systems Based on Polyacids and Polyamines with o-Nitrobenzyl Ether Groups

**Elena Danilovtseva** , *Limnological Institute Siberian Branch of Russian Academy of Sciences, Russian Federation*

Comparative Analysis of 3D Printing and Injection Molding for Biocomposites: Quantifying Limitations in 3D Printing

**Sunil Kumar L Ramamoorthy** , *Swedish Centre for Resource Recovery, University of Borås, Sweden*

Efficient and Recyclable Solid-Supported Pd(II) Catalyst for Microwave-Assisted Suzuki Cross-Coupling in Aqueous Medium

**Abdulrahman M. Alazemi** , *Kuwait University, Kuwait*

Dillenia Indica Mucoadhesive Hydrogel Infused with Amphiphilic Polyphenol: Emerging Adsorbent and Antioxidant

**Debolina Ghosh** , *Indian Institute of Technology Guwahati, India*

RAFT polymerisation of fatty acid acrylamide monomers derived from plant oils

**Oliver Harris** , *Loughborough University, United Kingdom*

Thermoresponsive and Biodegradable Poly(oligoethylene glycol methyl ether methacrylate) Nanogels for Targeted Drug Model Release

**Mazrina Mazlan** , *University of Manchester, United Kingdom*

Strategic Connections: New dual-curing Acrylic/Epoxy Systems for VAT Photopolymerization 3D Printing

**Armando Escriba Flores** , *Universitat Rovira i Virgili, Spain*

Chemical Recycling and Physical Tuning of Necklace-shaped Polydimethylsiloxanes Bearing Anthracene Dimer Units

**Atsuro Mori** , *Kumamoto University, Japan*

Rapid, High-Capacity Adsorption of Iodine from Aqueous Environments with Amide Functionalized Covalent

Organic Frameworks

**Niyati Arora** , *University of Texas at Dallas, United States*

Architectural Influence of Polymer Brush-Modified Tri-compartmental Anisotropic Particles in Stabilizing Pickering

Emulsion

**Subhashree Subhasmita Pradhan** , *Indian Institute of Technology Delhi, India*

DTI Analysis of the Implantation of Biomaterials Derived from Polyaniline for Tissue Regeneration in the Spinal Cord

**Puebla-Garcia Melissa**

Analysis of the Implantation of Biomaterials Derived from Polyaniline for Tissue Regeneration in the Spinal Cord

Using Magnetic Resonance Spectroscopy

**Ortega-Cruz Thania**

Mechano-responsive and Photochromic Dithienylethene-polycaprolactone Conjugates

**Medeina Steponaviciute** , *Yale-NUS College, Singapore*

## Virtual Presentations

**Keynote:** Furan-based Polymers Designed ad Hoc for Sustainable Monomaterial Food Packaging.

**Valentina Siracusa** , *University of Catania, Italy*

Revealing the Role of Chain Conformations on the Origin of the Mechanical Reinforcement in Glassy Polymer

Nanocomposites

**Hilal Reda** , *The Cyprus Institute, Cyprus*

Development of an Eco-Friendly Rubber Shoe Sole using Fly Ash as a Filler

**Chamal De Silva** , *The Plastics and Rubber Institute of Sri Lanka, Sri Lanka*

Application of Geopolymer Material on Open Pit Mine Road: A Review

**Abdoul Wahab Ali Moussa** , *China University of Mining and Technology, Cameroon*

Syntheses, Crystal Structures, Photoluminescence, and Antibacterial and Antifungal Properties of Coordination of N, O-donor Attached Schiff Base Ligand Towards Zinc(II)

**Rehab Kadhim Raheem Al-Shemary** , *University Middle Technical University, Iraq*

Aloe vera-based Edible Film with Enhanced Antioxidants, Thermal, and Barrier Properties for Sustainable Food Preservation

**Navjot Kaur** , *United Arab Emirates University, United Arab Emirates*

Influence of Curcumin in Overall Migration of Polyurethane Films for Fruits and Vegetables Packaging

**David Ruiz** , *Universidad de La Sabana, Colombia*

Study of Regenerative Processes in Cardiac Tissue using Tissue Engineering Methods

**Valeriya Tsvelaya** , *Moscow Institute of Physics and Technology (National Research University), Russian Federation*

Nanocellulose: A New Sustainable Bionanomaterial

**R.A. Ilyas** , *Universiti Teknologi Malaysia, Malaysia*

Calculation of Number-average Functionality and Gel-point for Stepwise Polymerization

**Hui Deng** , *RuiYan tech co. LTD, China*

Electrosynthesis of Silver Nanocomposites Based on N-Vinylimidazole and Acrylic Acid

**Sargsyan** , *Yale-NUS College, Singapore*

**E-Poster:** Copper and Silver Microparticles for High-performance Conductive Inks in Electronic Chip Shielding

**Alexsandro Bobsin** , *Universidade do Vale do Rio dos Sinos (Unisinos), Brazil*

**E-Poster:** Progress in Self-repairing Water-Blocking Materials for Engineering Uses in Water-Associated Settings

**Wentong Lu** , *Shanghai University of Engineering Science, China*

\* Tentative Program is Subjected to Change\*

We wish to see you at  
**Polymer Connect-2025**



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