

## PROGRAM

# 6<sup>th</sup> International Conference on **ADVANCED POLYMER SCIENCE AND ENGINEERING**



October 28-29, 2025 | Tenerife, Canary Islands  
October 30, 2025 | Online



**GF VICTORIA**  
Fernando Lopez Arvelo Street 1, 38660  
Costa Adeje, Santa Cruz de Tenerife

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# PROGRAM OUTLINE

Day-1 (In-Person)	October 28, 2025	Meeting Room: Victoria
08:30	Registrations and Badge Pickup	
09:10	Opening Remarks to "Advances in Polymer Science & Engineering"	
09:20	Keynote session-1	
10:40	Coffee Break	@Go Fun Terrace
11:00	Session-1 on Smart Polymers for Biomedical	
12:20	Session-2 on Design & Simulation of Polymeric Materials	
13:00	Group Photo & Lunch Break	@Chaboco Buffet Restaurant
14:00	Continue Session-2	
16:10	Social & Networking Dinner	

Day-2 (In-Person)	October 29, 2025	Meeting Room: Victoria
09:10	Keynote session-2	
10:30	Coffee Break	@Go Fun Terrace
12:10	Session-3 on Polymer Engineering for Energy, Environment, and Sustainability	
13:10	Lunch Break	@Chaboco Buffet Restaurant
14:00	Continue Session-3	
14:40	Session-4 on Surface Engineering, Mechanics & Sustainability in Polymer System	
16:00	Poster Presentations & Drinks	

Day-3 (Virtual)	October 30, 2025	UTC +0 (WET Time Zone)
11:00	AV Check & Introduction	
11:30	Keynote Presentation	
12:10	Featured Presentations	
14:10	E-Poster Presentations	
14:40	Closing Remarks	

### Zoom Link

<https://us06web.zoom.us/j/88268861024?pwd=glMkZu6kRPHES6HGZCU4IARvx3vJe.1>

Meeting ID: 882 6886 1024

Passcode: 765650

08:30 Registrations and Badge Pickup

09:10 Opening Remarks to "Advances in Polymer Science & Engineering"

### Keynote Presentations

Chair: **Stewart P. Lewis**, Pyramid Polymers LLC, United States

09:20 **Improving PVDF Piezoelectricity by Various Means**

**Abdellah Ajji**, CREPEC, Polytechnique Montreal, Canada

10:00 **Modified Traditional Initiator Systems With Unrivaled Arrhenius-MW Behavior. Greener and More Sustainable Cationic Polymerizations**

**Stewart P. Lewis**, Pyramid Polymers LLC, United States

10:40 Coffee Break

@Go Fun Terrace

### Featured Presentations

#### Smart Polymers for Biomedical

Chair: **Abdellah Ajji**, CREPEC, Polytechnique Montreal, Canada

11:00 **Interaction of Human Cells With Bacterial Nanocellulose**

**Lubica Stankova**, Institute of Physiology of the Czech Academy of Sciences, Czech Republic

11:20 **From Skin to Bone: Engineering Biomimetic In Vitro Models Using Polymeric Materials**

**Martina Doubkova**, Institute of Physiology of the Czech Academy of Sciences, Czech Republic

11:40 **Hydrogel Formulation for Sustained Release of Biomimetic Nanoparticles**

**Oshrat Regev Yehishalom**, Technion-Israel Institute of Technology, Israel

12:00 **3D Printing of Pea Protein -  $\kappa$ -Carrageenan Nanoparticles for Edible Pickering Emulsions**

**Galia Hendel**, Technion- Israel Institute of Technology, Israel

#### Design & Simulation of Polymeric Materials

Chair: **Jun Onoe**, Nagoya University, Japan

12:20 **Exploiting Self-Assembly of Block Copolymers to Control the Positioning of Lead Halide Perovskite Nanocrystals onto Conductive Supports**

**Anna Malafronte**, University of Naples Federico II, Italy

12:40 **Tuning Lamellar Nanostructure Alignment in Crystalline Block Copolymers**

**Rocco Di Girolamo**, University of Naples Federico II, Italy

13:00 Group Photo & Lunch Break

@Chaboco Buffet Restaurant

14:00 **Influence of Material Characterization Methods on Liquid Silicone Rubber Injection Moulding Simulations**

**Maurício Azevedo**, Polymer Competence Center Leoben GmbH, Austria

- 14:20 **Direct Mixed-mode Partitioning Using DIC and J-Integral in Beam-like Specimens**  
**Alojz Ivankovic**, University College Dublin, Ireland
- 14:40 **Structural Numerical Simulation in Plastic Pallets**  
**Ines Gomes**, PIEP - Innovation in Polymer Engineering, Portugal
- 15:00 **Numerical Analysis of Fatigue in Plastic Parts**  
**Vicente Barroso**, PIEP - Innovation in Polymer Engineering, Portugal
- 15:20 **Numerical Analysis of an Injection-Molded Composite Bicycle Frame: Influence of Fiber Orientation on Static Pedaling Loads**  
**Catarina Rebelo**, PIEP - Innovation in Polymer Engineering, Portugal

16:10 Social & Networking Dinner (\*Ticket Required)

# DAY 2

## In-Person

WEDNESDAY, OCTOBER 29, 2025

Room: Victoria

### Zoom Link

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Meeting ID: 882 6886 1024

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### Keynote Presentations

Chair: **Stewart P. Lewis**, Pyramid Polymers LLC, United States

- 09:10 **Chitosan-Derived Smart Nanocarbons for High-Value Applications**  
**Juan Matos Lale**, Universidad Autonoma de Chile, Chile
- 09:50 **Advanced Simulation of Injection Molding: Material Characterization and Main Phenomena Involved**  
**Roberto Pantani**, University of Salerno, Italy
- 10:30 **Coffee Break** @Go Fun Terrace
- 10:50 **Polymer Engineering for Biomedical Applications - Material development for Implants [Virtual]**  
**Ines Kuehnert**, Leibniz-Institut für Polymerforschung Dresden e. V., Germany
- 11:30 **Advances in Smart Polymers and Derivatives for a Sustainable Future**  
**Alberto García-Peñas**, Universidad Carlos III de Madrid, Spain

### Featured Presentations

#### Polymer Engineering for Energy, Environment, and Sustainability

Chair: **Alberto García-Peñas**, Universidad Carlos III de Madrid, Spain

- 12:10 **UV-Assisted Synthesis of Gel Polymer Electrolytes for Sustainable Li-Ion Battery Design**  
**Ana Luisa BARRERA ALMEIDA**, University of Lille (UMET), France
- 12:30 **Small Biogas Plants made of Textile Materials**  
**Hofmann Josef**, University of Applied Sciences Landshut, Germany

12:50 **Biomimetic Reaction of Cellulose Nanofibrils via Amino Acids: A Morphological and Structural Study**  
**Daniel José da Silva**, Palacky University, Czech Republic

13:10 **Lunch** @Chaboco Buffet Restaurant

14:00 **Upscaling High Glycolic Acid Polyesters: A Study into the Synthesis, Recycling and (Bio) Degradation of Polylactic-Co-Glycolic Acid (PLGA)**  
**Angus McLuskie**, University of Amsterdam, Netherlands

14:20 **From Waste to Vehicles: Ageing and Durability of Post-Industrial and Post-Consumer Recycled Polypropylene**  
**Valentina Brunella**, University of Turin, Italy

## Surface Engineering, Mechanics & Sustainability in Polymer System

**Chair:** **Juan Matos Lale**, Universidad Autonoma de Chile, Chile

14:40 **Programmable Wrinkle Morphologies on PDMS Films via Plasma-Induced Surface Oxidation**  
**Sushree Ritu Ritanjali**, Indian Institute of Technology Kharagpur, India

15:00 **Science and Applications of One-dimensional Uneven-Structured C<sub>60</sub> Polymer**  
**Jun Onoe**, Nagoya University, Japan

15:20 **Developing Sustainable Plant-Based High Water Repellent Coatings Using Hydrophobic Pine and Palm Pollen**  
**Brenda Resendiz Diaz**, Queen Mary University of London, United Kingdom

15:40 **Synthesis of Fully-Biobased Composites from Isosorbide Monomethacrylates Reinforced with Flax by Resin Transfer Molding (RTM)**  
**Sara Barriga Valdez**, University of Lille, France

16:00 - 17:00 **Poster Presentations & Drinks** @Go Fun Terrace

PC-01 **Study of Homogeneous and Heterogeneous Catalysts Based on Zinc (II) Complexes for the Synthesis of PLA via Ring-Opening Polymerization**  
**Dario Gonzalez**, Pontifical Catholic University of Valparaíso, Chile

PC-02 **Cellulose-Derived Nanoporous Carbons for the UV-Driven Photocatalytic Remediation of Toluene Pollution**  
**Juan Matos Lale**, Autonomous University of Chile, Chile

PC-03 **XAFS Analysis of Polymer-Supported Osmium Oxide Catalyst**  
**Tomoko Yoshida**, Nagoya University, Japan

PC-04 **Engineering Green Rubber Composites: Utilization of Devulcanized Rubber Crumb and Lignin**  
**Michaela Dzuganova**, Slovak University of Technology in Bratislava, Slovak Republic

PC-05 **Synthesis and Physical Characterization of Covalently Linked Thieno[2,3-b]thiophene-Fullerene Dimers**  
**Abdulahman M. Alazemi**, Kuwait University, Kuwait

PC-06 **Investigating Metal Complexes of Poly(Tartaric Acid) and Poly(Hydroxymandelic Acid) as Thermal Interface Materials**  
**Natalia Terenti**, National Institute for Research and Development of Isotopic and Molecular Technologies, Romania



- PC-07 **Synthesis and Characterization of a New Ionic Poly(IMIDE) With Potential Application as a Membrane for Gas Separation**  
**María Victoria**, Pontifical Catholic University of Chile, Chile
- PC-08 **Design BioCP-Doped Films Based on Chia Seed Mucilage**  
**Sabina Weronika Jaros**, University of Wrocław, Poland
- PC-09 **Technologies for Obtaining Biocomposites With Improved Durability Against Environmental Factors**  
**Natalia Kubiak**, Adam Mickiewicz University, Poland
- PC-10 **Sustainable PLA Composites Reinforced With Agricultural Waste for FDM 3D Printing**  
**Magdalena Kustosz**, Adam Mickiewicz University, Poland
- PC-11 **Breaking the Limits of PLA Toughness: The Role of Dual-Functional Organosilicon Additives in Structure-Property Optimization**  
**Julia Glowacka**, Adam Mickiewicz University, Poland
- PC-12 **Liquid for Fused Deposition Modeling Technology - New Possibilities in Composite Manufacturing**  
**Roksana Konieczna**, Adam Mickiewicz University, Poland
- PC-13 **Pilot Study on the Application of L-FDM Technology for Printing Controlled-Release Tablets Containing Active Pharmaceutical Ingredients**  
**Ewa Gabriel**, Adam Mickiewicz University, Poland
- PC-14 **Thermal Characterization of FFKM: A DOE-Based Optimization of DSC and TG Parameters**  
**Caio Rosemberg Fonseca do Nascimento**, National Institute of Technology, Brazil
- PC-15 **Residual Tensions in Multilayers for Clear Aligners With Tunable Thermomechanical Properties**  
**José Ignacio**, IMDEA Materials, Spain
- PC-16 **Hydrophobic/Hydrophilic Bifunctional Cryogel for the SPE-LC-MS Analysis of PFAS in Water**  
**Gabriel Cabral da Fonseca**, BCMaterials, Spain
- PC-17 **In Vitro Biological Behavior of Self-Assembled Nanoparticles With Perfluorinated Core: Crosstalk Between Surface Charge and Fluorophilicity**  
**Leana Vratović**, Institute of Macromolecular Chemistry, Czech Republic

### Best Poster Presentations



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11:00 AV Check & Introduction

### Keynote Presentation

11:30 **Environmental 100% Biobased Poly(Trimethylene Furanoate (PTF) Modified With Sebacic Acid and Suberic Acid**

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

### Featured Presentations

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

12:10 **Nanogels for Pulmonary Drug Delivery**

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

12:30 **Optimizing Pore Environment in a Cationic Polymetric Nanotrap for Highly Efficient Remediation of Short-Chain Per- and Polyfluoroalkyl Substances from Water**

**Bin Wang**, Soochow University, China

12:50 **Designing and Synthesis Routs for Conductive Ionomers for Durable Anion Exchange Membrane-Based Water Electrolyzers and Fuel Cells**

**Mehdihasan Shekh**, Shenzhen Wenshi Hydrogen Energy Technology Co. Ltd, China

13:10 **From Limonene to Functional Polymers: Monomer Design and Miniemulsion Polymerization for Targeted Sorption of Caffeine and Rhodamine B**

**Thaina Araruna da Rocha**, University of Brasilia, Brazil

13:30 **Experimental Design Applied to the Bulk Ring-opening Polymerization of  $\epsilon$ -Caprolactone Using the Ionic Liquid Catalyst  $[C_4C_1Im][In_2Cl_7]$**

**Giovanna Otero**, University of Brasilia, Brazil

13:50 **Numerical Analysis of Seal Seam Geometry and its Impact on Opening Forces in Flexible Packaging**

**Marc Götz**, Fraunhofer Institute for Process Engineering and Packaging IVV, Germany

### E-Poster Presentations

14:10 **Sustainable Polypropylene Light-Weight Skateboards**

**Andreas Charalambous**, Capsule Skateboards Ltd, Cyprus

14:20 **Photopolymerization of Acrylated and Methacrylated Soyabean Oil**

**Laura Ciciliano**, University of Brasilia, Brazil

14:30 **The Effect of the Frequency of the Ultrasonic Field on the Swelling Kinetics of PMAA Xerogel and PMAA-LTA Zeolite Composite Xerogel**

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

### Closing Remarks



# FUTURE MATERIALS ASIA 2026

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**Abstract Submission Deadline: November 25, 2025**

## SPEAKERS



**Irene Beyerlein**

*Distinguished Professor, University of California at Santa Barbara, USA*



**Hyung-Ho Park**

*Director, Aerogel Materials Research Center (ERC), Founder & CEO, Aerogel Plus, Insulation Technology (APIT), Republic of Korea*



**Patricia Horcajada**

*Head of the Advanced Porous Materials Unit, IMDEA Energy, Spain*



**Li-Jun Wan**

*Professor, Institute of Chemistry, Chinese Academy of Sciences, China*



**Martina Stenzel**

*Professor, The University of New South Wales, Australia*



**Shangjr (Felix) Gwo**

*Distinguished Chair Professor, Department of Physics, National Tsing-Hua University, Hsinchu, Taiwan*



**Sang Sub Kim**

*Professor, Inha University, Republic of Korea*



**Hyunhyub Ko**

*Professor, Ulsan National Institute of Science and Technology (UNIST), Republic of Korea*



**Michael Chan**

*Professor & Center Director, The Chinese University of Hong Kong, Hong Kong*



**Jinsung Park**

*Professor, Sungkyunkwan University, Republic of Korea*



**Jayaramulu Kolleboyina**

*Associate Professor, IIT Jammu, India*



**Marianne M. Lee**

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