



European Materials Research Society

# 2026 Spring Meeting

May 25 - 29  
Strasbourg Convention Centre

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## SYMPOSIUM Q

Polymer materials: frontiers in science, engineering and technology

Oral sessions : **SCHUMAN - FIRST FLOOR**

Poster sessions : **ETOILE - FIRST FLOOR**

*Symposium Organizers:*

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Monday May 25  
**Q01 Frontiers in Polymer Materials 1**

Chairperson(s): GRANDE Daniel  
 OKAMOTO Hajime

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08:30	2179	Perovskite Photovoltaics, Light-emitting Diodes, and X-ray Detectors for Flexible Electronics <b>HUANG Wei (Invited)</b>
09:00	643	Solar-Powered Pressurised Spinning for Sustainable Fibre Production <b>AYDOGDU Mehmet Onur</b>
09:15	1829	New Diketopyrrolopyrrole-Based Donor Polymers for Near-Infrared-based Organic Photodiodes <b>ZAMHURI Adibah</b>
09:45	602	Design and Fabrication of Stretchable Electronics through Geometric Engineering <b>YANG Jun Chang</b>

Monday May 25  
**Q02 Frontiers in Polymer Materials 2**

Chairperson(s): AYDOGDU Mehmet  
 WANG Yu-zhong

[View session abstracts](#)

10:30	342	Recyclable Multilayer Films from Industrial Waste Streams <b>STELLACCI Francesco (Invited)</b>
11:00	83	High-Performance Mixed Matrix Membranes with Very-High ZIF-8 Loading for Efficient CO <sub>2</sub> Capture <b>JONQUIERES Anne</b>
11:15	2053	Sustainable Polycarbonate Chemical Recycling: Design of Reusable Ionic Liquids with Tunable Hydrogen-Bond-Donor Anions <b>EUN Hamin</b>
11:30	1765	Are Biodegradable Mulch Films as green as expected? LC-MS investigation of plastic additive leaching into agricultural soil during polymer degradation <b>GIGLIO Valentina</b>
11:45	2878	Sustainable Mitigation of Persistent Organic Pollutants in Aquatic Environments Using Natural Deep Eutectic Solvents <b>VASEASHTA Ashok</b>

Monday May 25  
**Q03 Frontiers in Polymer Materials 3**

Chairperson(s): BAI Jinbo  
 RAY Suprakas sinha

[View session abstracts](#)

14:30	706	High-Efficiency Manufacturing and Environmental Reliability of Holographic Plastics <b>XIE Xiaolin (Invited)</b>
15:00	2963	High Lignin-Content Photoresins Enabled by Optimized UV Decolorization for High-Resolution Additive Manufacturing <b>MONTAZERI Ramin</b>
15:15	371	Innovating Photochemical Tools for Advanced Manufacturing and Polymer Materials <b>XIAO Pu</b>
15:30	193	Translating Lignin Waste to Watts: Harnessing Dielectric Tunability for Next-Gen Green Supercapacitors <b>AMBRICO Marianna</b>
15:45	778	Core sheathed Composite Biopolymer Fibre Formation via Core-sheathed Inverted Nozzle Pressurised Gyration Using Alginate and Cinnamon-Derived Cellulose <b>DE SILVA Hettiyahandi Binodh</b>

Monday May 25  
**QP01 Poster session 1**

[View session abstracts](#)

16:30	01_1073	Efficient and Low-Power Consumption Organic Light-Emitting Transistors <b>WU Zhongbin</b>
16:30	02_1094	Self-Healing Multifunctional Elastomeric Nanocomposites for Autonomous Sensing and Energy Harvesting <b>BISWAS Shovan</b>
16:30	05_1126	Visual Saturation-Responsive Thiol-Porphyrin Cryogels for Mercury Removal in Water Treatment <b>PROIETTO SALANITRI Giuseppe</b>
16:30	06_1169	Mesogen-Assisted Exfoliation of MoS <sub>2</sub> : The Impact of Particle Size and Magnetic-Field Alignment <b>HAN Jihee</b>
16:30	07_1230	Injectable Thermoresponsive Chitosan-β-Glycerophosphate Hydrogels for Dual Magnetic Hyperthermia and pH-Responsive Drug Delivery <b>NATH CHOWDHURY Sreeja</b>
16:30	08_1263	Rheological Behavior of Branched Supramolecular Polymers <b>COHEN Carmel</b>
16:30	09_127	Stimuli responsive Copolymer Coated Palladium Nanoparticles for Suzuki Coupling Reaction in Aqueous Medium <b>PADHEE Jitu</b>

16:30	10_1293	Electrospun polymer-based nanocomposite fibers for conformable and lead-free radiation shields <b>CIARLEGLIO Gianluca</b>	16:30	28_171	Hierarchical Metal–Carbon Interphases for Energy-Coupled Multifunctional Fibre Composites <b>KANG Jingyu</b>
16:30	11_1322	Gelatin-Based Organohydrogels as a Programmable Platform for Sustainable Soft Electronics <b>TORDI Pietro</b>	16:30	29_177	Micro-Swelling-Induced Nanostructured Hydrogen-Bond Network (MiNaHN) Integrates Inert Aramid Fibers into High-Strength, Wear-Resistant Fabric Composites <b>MA Xiaokang</b>
16:30	12_1380	Functional Porous Polymer Materials for Ultra-Broadband 6G–XG Wireless Communication <b>MA Haoyu</b>	16:30	30_1775	Development and application of highly durable blend polymer-based ion-exchange membranes <b>Lee Ji-Hyeon</b>
16:30	13_1420	Multidirectional Stretchable Electrodes via Anisotropic Molecular Alignment <b>BANG Sujin</b>	16:30	32_183	Tunable n-Type Screen-Printed Organic Electrochemical Transistors for Bioelectronic and Neuromorphic Applications <b>CHEN Yingjun</b>
16:30	14_1465	Impact of Eco-friendly Basalt Fillers on Silicone Rubber: A New Generation Halogen-free Intumescent Flame-retardant Composite System <b>GUPTA Piyush</b>	16:30	33_1837	Slot-Die Coated PMMA/Oligothiophene Films for High-Performance LSCs <b>BOTTARO Gregorio</b>
16:30	15_1469	Impact of Side-Chain Engineering on the Molecular Orientation of Perylene Diimide Emitters: An Angle-Dependent X-ray Absorption Spectroscopy Study <b>CHO Sangwan</b>	16:30	34_1840	Dual-functional luminescent Eu <sup>3+</sup> -doped PMMA for Building-Integrated Photovoltaics and visible-blind UV sensing <b>BOTTARO Gregorio</b>
16:30	16_150	Reactions of $\beta$ -Keto(di)ester and 1,3-Diol or Amine to Access Chemically Recyclable Thermosets <b>MA Youwei</b>	16:30	35_1921	Quinoline-Based Photoinitiator Systems for Visible-Light Photopolymerization of UDMA: Kinetics and Performance <b>ROSÁRIO Ilana</b>
16:30	17_151	Effect of chemical bleaching and photo bleaching on crude agar characteristics from Gracilaria sp. <b>DAMAYANTI Krista</b>	16:30	36_1924	Magnetically Reinforced Hybrid Zr <sup>4+</sup> -Oxocluster Materials for Organic Sulfide Oxidation <b>BRAGAGGIA Giulia</b>
16:30	18_1513	Textile dyeing by photopolymerization <b>BRAND Mélanie</b>	16:30	38_2151	PDMS–AuNW composite stretchable OECT transducers for soft neural probes <b>SAMUEL Jibin</b>
16:30	19_157	High-Performance Low-Dielectric TLCP Microcellular Foam Reinforced with Surface-Modified Hollow Glass Microspheres for High-Frequency Communications <b>SUN Jiayang</b>	16:30	39_266	Effect of Cyclohexanedimethanol Incorporation on the Thermal and Mechanical Properties of Bio-Based Thermoplastic Polyurethanes <b>KIM Daesin</b>
16:30	20_1570	Modulus-Engineered Hydrogel Dressing for Enhanced Wound Healing and Scar Prevention <b>DONG Xiaofei</b>	16:30	41_323	Hybrid Ceramic-Polymer Anionic Exchange Membranes for Alkaline Water Electrolysis Hydrogen Production <b>SUN Ying</b>
16:30	21_1589	Uncovering Novel Ion Transport Pathways in High-Temperature Green Hydrogen Electrolyser Membranes via Machine-Learned Interatomic Potentials <b>THOMAS Joseph</b>	16:30	42_332	Development of An Injectable, Biocompatible and, Biodegradable Porous Scaffold for Bone Tissue Regeneration <b>ETIOWO Kokolo</b>
16:30	22_1634	Beyond Transcrystallinity: How Matrix Molecular Weight Governs Interfacial Shear Strength in All-Polypropylene composites <b>POLLASTRO Andrea</b>	16:30	43_3330	Antimicrobial starch-based films incorporating thiazolothiazoles for catheter applications <b>CERQUEIRA Ana</b>
16:30	23_1637	Mechanochemical Vitrimerization of Anhydride-Cured Epoxies: Process Optimization, Multi-Cycle Stability, and Environmental Sustainability <b>AGIZZA Marco</b>	16:30	44_336	Bridging Nature and Neuromorphic Computing: Nigella Melanin as an Eco-Friendly Synaptic Material <b>AMBRICO Marianna</b>
16:30	24_1638	Structure–Activity Interplay in Pore Wall Engineered Donor–Acceptor Covalent Organic Polymers towards Visible Light-Driven Rapid Continuous Flow Photoreduction of Hexavalent Chromium <b>JENA Swadhin Kumar</b>	16:30	45_3379	Sodium Alginate/Carboxymethyl Chitosan Hydrogel Beads as Advanced Adsorbent Materials for Dye Removal <b>STEFAN Ana-Roxana</b>
16:30	25_1641	Wearable self-healing sensor for health monitoring <b>Zhou Mingyu</b>	16:30	46_3380	Porous Cellulose Nanofiber–Alginate Hydrogel Beads with Sacrificial CaCO <sub>3</sub> for Adsorption of Organic Dyes <b>VOICU Ana-Maria</b>
16:30	26_1660	Molecular Conformation and Crystallization Behavior of Bifuran-Based Polyesters: Insight into Odd-Even Effect <b>LI Wenting</b>			

16:30	47_403	Design of thermoresponsive layer-by-layer films for the encapsulation and release of vitamin E <b>ALBALADEJO Anthony Salvador</b>
16:30	48_446	Low Surface Energy and Hydrophobic Textile Coatings Based on PDMS/Fumed Silica-Modified Bio-Based WPU <b>KIM Daesin</b>
16:30	49_45	Design and Evaluation of Hybrid Sulfur–Peroxide Vulcanized HNBR Networks: Balancing Flexibility and Stability through Dual Crosslinking <b>DHAR Sharmistha</b>
16:30	50_50	Polar Polymers as Electrolytes in Lithium Metal Batteries <b>ZIMMERLI Can</b>
16:30	51_526	Development and Biomechanical Testing of Polymeric Based Biofidelic Skin Simulants <b>SINGH Gurpreet</b>
16:30	52_54	Sustainable Reinforcement Strategies for Tire Compounds: Balancing the Magic Triangle through Bio-Based Fillers and Additives <b>DEY Dibyendu</b>
16:30	53_603	Robust long-term plant bioelectronics based on conformal thermoresponsive polymeric interface <b>WONG Yi Jing</b>
16:30	55_647	Three-dimensional (3D) printing of highly deformable, multi-layered electrical devices using SEBS-based composite dual inks <b>Kim Jung Hyun</b>
16:30	56_677	Thermally Drawn Soft and Stretchable Single-Mode Optical Fibre for Data Communication <b>SONG Jin Won</b>
16:30	57_678	Insights into synergistic interaction of PVDH-Pluronic mixtures: Rheology and Transition phenomena <b>PANDA Prachishree</b>
16:30	58_700	Advanced Hybrid Filler Reinforced Rubber Nanocomposites for Gas Barrier Membranes <b>VELAYUDHAN Prajitha</b>
16:30	59_705	High-Efficiency Manufacturing and Environmental Reliability of Holographic Plastics <b>XIE Xiaolin</b>
16:30	60_724	Tunable Open-Cell Structures Engineered for Multifunctional Biodegradable Polymer Foams <b>JIANG Jing</b>
16:30	61_730	Localizing Enzymes at the Amorphous-Crystalline Interface Improves Poly(lactic acid) Degradation <b>DE MEEÛS Juliette</b>
16:30	64_821	Inverse Direct Ink Writing as a Process Strategy for Shape-Stable Alginate Hydrogels via Controlled Ca <sup>2+</sup> Diffusion <b>MAHAPATRA Sibani</b>
16:30	65_902	Functional Diblock Copolymers with Self-Immolative Domains as Precursors to Nanoporous Materials <b>ALOUI Mohamed Ali</b>

## Tuesday May 26 Q05 Frontiers in Polymer Materials 5

Chairperson(s): **WANG Yu-zhong**  
**XU Ben**

[View session abstracts](#)

08:30	325	Self-assembly of Carbohydrate Block Copolymers: From Glyconanoparticles to Thin Films to Photonic Crystals <b>BORSALI Redouane (Invited)</b>
09:00	289	Macrocyclic Diacetylene based multifunctional soft nanostructures <b>KADAMANNIL Nila Nandha</b>
09:15	3294	Active bioplastic coatings for footwear applications based on starch-rich industry byproducts and PBAT <b>GONCALVES Idalina</b>
09:30	2211	Circular-Economy Conductive Biopolymer Coatings for Robotics <b>CATALDI Pietro</b>
09:45	1530	Chitosan based bio-sourced resists for near UV lithography: A Sustainable semiconductor manufacturing process <b>RANI Dipti</b>

## Tuesday May 26 Q06 Frontiers in Polymer Materials 6

Chairperson(s): **EDIRISINGHE Mohan**  
**STELLACCI Francesco**

[View session abstracts](#)

10:30	489	Thermostable foams derived from cyanurate-based thermosets <b>GRANDE Daniel</b>
11:00	2611	Microstructural evolution and mechanical response of elastomers with liquid droplet inclusions <b>RANOO Surojit</b>
11:15	723	Processing and Biomedical Applications of the Biodegradable Elastomer PLCL <b>WANG Xiaofeng</b>
11:30	1805	Effect of flax yarn surface treatment on the interface quality and mechanical properties of flax-PLA 3D printed structures <b>BARDON Julien</b>
11:45	111	A strategy to structurally reinforce elastomers to enhance their durability <b>ZHANG Wenxuan</b>

Tuesday May 26

## Q07 Frontiers in Polymer Materials 7

Chairperson(s): GAO Changyou

ROYAUD Isabelle

[View session abstracts](#)

13:45	131	Raman spectroscopy application for bone evaluation in oral reconstructive/regenerative surgery <b>GATIN Eduard (Invited)</b>
14:15	522	Advanced In-Situ Mechanical Characterization of Polymeric Materials Using Synchrotron Radiation <b>DAVYDOK Anton</b>
14:30	344	AFM a powerful tool to study thermo-mechanical properties of amorphous thin polymer films <b>DELORME Nicolas</b>
14:45	1794	Microstructured oCVD-PEDOT Nanolayers Fabricated by EDOT/SbCl <sub>5</sub> Chemistry and Photoresist-Based Lift-Off <b>VOSS Tobias</b>
15:00	107	Maskless gray-scale UV lithography for micropatterned transparent and fluorescent PDMS nanofilms <b>OKAMOTO Hajime</b>
15:15	1673	A Nonlinear Organic Infrasonic Sensor <b>MITTMANN Maarten</b>
15:30	2554	Fungi as Organic Electrochemical Transistor Components for Biosensing Applications <b>F. P. BARBOSA Henrique</b>
15:45	1121	1121 Hydration-Induced Stiffening in High-Water Content Hydrogels via ECM-Inspired In-Situ Structural Reconfiguration <b>KIM Dong-Yeong</b>

Tuesday May 26

## Q08 Frontiers in Polymer Materials 8

Chairperson(s): VASEASHTA Ashok

YANG Jun chang

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16:30	318	Gradient hydrogel-nanofiber nerve guidance conduit with multiple inductive cues promotes peripheral nerve repair in primate models <b>XUE Jiajia (Invited)</b>
17:00	1271	Hybrid Ceramic-Graphene Filler Systems for Enhanced Thermal and Mechanical Performance in PDMS-Matrix Thermal Interface Materials <b>Karagiannidis Panagiotis</b>
17:30	2887	Interfacial engineering empowered Advanced Mechanics and Materials for Extreme Environment <b>XU Ben</b>
17:45	615	PEDOT:PSS Stretchability Enhancement Induced by Hard-Cation-Soft-Anion Ionic Liquids: Simulated Mixing, Drying, and Pulling <b>JANG Yun Hee</b>

18:00	3262	Electrospun PVDF/PCBM Nanofibers as Active Layers for High Performance Flexible Piezoelectric Generators <b>LEONARDO SILVA Pedro</b>
18:15	214	Slip Dynamics in Soft Arrested Materials under Squeeze-Flow Deformation <b>CHAUDHARY Ishu</b>

Wednesday May 27

## Q09 Frontiers in Polymer Materials 9

Chairperson(s): LALEVÉE Jacques

WANG Yu-zhong

[View session abstracts](#)

08:30	1241	Modern Mass spectrometry applied to polymer-based materials characterization <b>CARROCCIO Sabrina Carola (Invited)</b>
09:00	3281	Polysaccharide-based aerogels for environmental remediation <b>SALZANO DE LUNA Martina</b>
09:15	2149	Revealing the crystalline structure of perovskite films using grazing incidence wide angle x-ray scattering <b>SONG Lin</b>
09:45	803	Challenges in the Analysis of Arvin Impurities in Polyolefin Water Pipes <b>ANWAR Hany</b>

Wednesday May 27

## Q10 Frontiers in Polymer Materials 10

Chairperson(s): HUANG Wei

RADULESCU Aurel

[View session abstracts](#)

10:30	85	Multi-scale Regulation of Microcellular Polymer and Its Devices with Excellent Low-Dielectric Properties by Supercritical Fluid Foaming <b>ZHAO Ling (Invited)</b>
11:00	196	PVDF Terpolymer-Based Multifunctional Nanocomposites for Energy Storage and Energy Harvesting from Fine Motor Movements and Stray Magnetic Fields <b>ROYAUD Isabelle</b>
11:15	128	Preparation of microcellular elastomer for new-generation sports protection and monitoring by microwave selective sintering <b>CHEN Yichong</b>
11:45	838	Tailoring thermal expansion and millimeter-wave performance of PPE/PS composites via GFC reinforcement and VTMS-modified Mg <sub>2</sub> SiO <sub>4</sub> nanoparticles <b>CHIU Yen-Lun</b>

Wednesday May 27

### Q11 Frontiers in Polymer Materials 11

Chairperson(s): AYDOGDU Mehmet

FLOREA Larisa

[View session abstracts](#)

13:45	16	Self-adaptive biomedical polymers for tissue repair and regeneration <b>GAO Changyou (Invited)</b>
14:15	2980	Dual-nanoparticle-driven in situ self-assembling injectable hydrogels for multifactorial chronic wound treatment <b>AHMADI Reza</b>
14:30	1597	Extreme stretchability of Cubosomes-crosslinked hydrogels: structural evolution probed by in-situ SANS <b>FERDEGHINI Filippo</b>
15:00	1662	Lithography-Free PEDOT-S Nanowires for Cell Interfacing and Injectable Applications <b>HUGHES Damien</b>
15:15	1454	Tailoring peptide-rich polymers for biomedical applications <b>CHAN-SENG Delphine</b>
15:30	1474	Semiconducting hydrogel engineering for soft electronics applications <b>WANG Shu-Jen</b>
15:45	3336	Electrically-driven Hydrogels Micro-Actuators Fabricated by Direct Laser Writing <b>FLOREA Larisa</b>

Thursday May 28

### Q12 Frontiers in Polymer Materials 12

Chairperson(s): PAPAGEORGIOU Dimitrios

XIE Xiaolin

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08:30	2938	Interphases at different scales and by different techniques <b>BAI Jinbo (Invited)</b>
09:00	1558	Liquid-metal-based electronic fibers for smart textiles <b>Laperrousaz Stella</b>
09:15	2006	Paper-Based Piezoresistive Sensors for Stock Monitoring in Gravity-Fed Retail Shelves <b>GONÇALVES Sérgio Abílio Pereira</b>
09:30	958	Contrast variation small-angle neutron scattering with in-beam controlled humidity and temperature as a unique characterization technique for conductive polymers <b>RADULESCU Aurel</b>
09:45	633	Water-repellent PFAS-free textiles with micro/nanoscale-designed roughness <b>SZERLAUTH Adél</b>

Thursday May 28

### Q13 Frontiers in Polymer Materials 13

Chairperson(s): OPRIS Dorina m.

RANOO Surojit

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10:30	2785	Delayed Crystallization Response-Inspired Waterborne Polyurethane <b>CHEN Fei (Invited)</b>
11:00	2396	Irreversible adsorption and crystallization in ferroelectric polymer thin films <b>NOGALES RUIZ Aurora</b>
11:15	1792	Concentration and Temperature Scaling of Viscosity for Polymers in Deep Eutectic Solvents <b>FILIPPOV Alexei</b>
11:30	2868	Bio-inspired interface design for wearable electronics <b>LI Zhuo</b>
11:45	2908	Dynamically and Spatially Programmable Photoredox Colloidal System <b>BASHARAT Majid</b>

Thursday May 28

### Q14 Frontiers in Polymer Materials 14

Chairperson(s): CHAN-SENG Delphine

EDIRISINGHE Mohan

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13:45	251	Photo-Functionalized Polymeric Nanoplatfoms for Biomedical Phototheranostics <b>YANG Zhen (Invited)</b>
14:15	1586	Multi-parametric control of light-guided microscale formation in azobenzene-containing polymers <b>JANUARIYASA I Komang</b>
14:30	749	Engineered Core-Shell Nanocarrier with Programmable Surface Functionality for Synergistic Drug Co-Delivery <b>JANG Yeonwoo</b>
14:45	1137	Species-Resolved Kinetics Reveal Faster Electrochromic Switching in Wurster-Linked COF Films <b>ZHANG Kaishuai</b>
15:00	979	Accelerated Mechanochemistry in Helical Polymers <b>ZHANG Hang</b>
15:30	113	New photoinitiating systems for high performance materials <b>LALEVÉE Jacques</b>
15:45	765	Multiscale Mechanisms and Structure Regulation of Interfacial Polymerization via Solvent Engineering for Functional Membrane <b>ZHANG Yonglin</b>

**Thursday May 28**  
**QP04 Poster session 4**

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- 16:30 01\_1004 Enhancing Interfacial Adhesion of UHMWPE Fiber/Rubber Composites via Plasma Activation and a Novel Polyol-Isocyanate-Latex Dipping System  
**WANG Wencai**
- 16:30 02\_1006 Chemically Modified Graphene Oxide/Butyl Rubber Composites with Superior Gas Barrier Performance  
**WEN Shipeng**
- 16:30 02\_1077 Molecular Conformation and Crystallization Behavior of Bifuran-Based Polyesters: Insight into Odd-Even Effect  
**LI Wenting**
- 16:30 03\_1098 Cationic Polymer Brush-Grafted Cellulose as Functional Biopolymers for Water Treatment and Structural Reinforcement  
**HU Jingdan**
- 16:30 04\_1175 Photoliquefiable Polymer-Enabled Dry Fabrication of Lithium-Ion Battery Cathode  
**KANG Yujin**
- 16:30 05\_1176 In-situ Synthesis of Form-Factor Free Liquid Crystal Gel  
**CHO Mingi**
- 16:30 06\_125 Synthesis and Electrochemistry of Donor-Acceptor Fused Heteroaromatics from BDTD Diamines reactions  
**. Manisha**
- 16:30 07\_1325 UV-Curable Water-based Thermochromic Inks based on Ionic Liquid-Metal Complexes for Printed Security Applications  
**OLIVEIRA Duarte B.**
- 16:30 09\_1369 Crystallized Conjugated Polymer-Based Sensors for the Electrochemical Detection of Biologically Important Molecules  
**WEN Zuwang**
- 16:30 10\_1395 Design of Multifunctional, Structurally-Gradient Microcellular Materials via Supercritical Foaming for Integrated Microwave Absorption and Energy Conversion  
**WANG Xiaoja**
- 16:30 11\_1412 Radiation-processed polymer nanocomposites, interface engineering, and functional sensing platforms  
**PATIL Pragati**
- 16:30 12\_1448 Developing Organic Electrochemical Diodes Based on Chemically Dedoped PEDOT:PSS  
**JEONG Su-Hyeon**
- 16:30 13\_1499 Thermally Stable Low-Loss MgSiO<sub>3</sub>/PPE/PS Composite Dielectric Substrates for High-Frequency Patch Antenna Applications  
**WU Pei Wei**
- 16:30 14\_153 Study on the tribological properties of Thermoplastic Polyurethane and their microcellular foams with different soft/hard segment ratio under chemical mechanical polishing conditions  
**LI Xuwei**

- 16:30 15\_1682 Bioinspired crack based strain sensors with modulus mismatch induced nanocracks for ultrasensitive deformation detection  
**LEE Gunhee**
- 16:30 16\_1701 Filament Fabrication and FDM 3D Printing of Liquid Crystal Polymer Composites: Effect of Filler Morphology on Inter-Layer Adhesion  
**BATTISTELLI Chiara**
- 16:30 17\_181 Polymer dielectrics for high-temperature capacitive energy storage  
**LI Qi**
- 16:30 18\_1812 High-performance reinforced composite ion-exchange membranes based on electrospun nanofiber supports  
**Yoon Gi-Young**
- 16:30 19\_1941 Assemblies of new hydrophilic primary amine-based block copolymers for the synthesis of stimuli-responsive functional mesoporous materials  
**JELEFF Maya**
- 16:30 20\_1954 Spinning Matters: How Fiber Processing Routes Influence Hydrophobic Drug Release from Thermosensitive PNVCL  
**DE PAULO Maria Antônia**
- 16:30 23\_1990 Effect of Anion Structure on the Ethanolysis of Poly(ethylene terephthalate) in Imidazolium-Based Ionic Liquids  
**LEE Seung Hun**
- 16:30 24\_2016 From Zwitterionic Hydrogels to Silica Hybrid Networks: Regulating Water States for Enhanced Anti-Icing Properties  
**LEE Eunji**
- 16:30 25\_2032 Tuning the functional and EMI shielding properties via exposure of 1.3 MeV  $\gamma$ -irradiations of PCCCe polymer nanocomposite  
**SHARMA Neha**
- 16:30 26\_2037 Skin-like Styrene-Ethylene-Butylene-Styrene Elastomer for Capacitive Tactile Sensing and Human Activity Detecting  
**HSIEH Gen-Wen**
- 16:30 27\_2089 An OECT-based stretchable continuous glucose monitor for skin-conformable wound management  
**PANG Ivo**
- 16:30 28\_2097 Investigation of Thermal Oxidative Crosslinking Influencing Bias-extension Behavior of PPS-based Fabric Prepreg  
**LI Guanlong**
- 16:30 29\_2201 Bridging MOFs and Membranes: High-Performance Zn-MOF/PAN Composite for Environmental Remediation  
**PATTANAYAK Ipsita**
- 16:30 30\_2203 Preparation and Electrochemical Performance of Modified Poly(ether ether ketone)/Cellulose Nanocrystal Composite Separators  
**LI Xiangyu**
- 16:30 31\_2374 Investigation of Ionic Transport Mechanisms and Technology Suitability in PANi-PVDF (Polyvinylidene fluoride) Films  
**YILDIRIM Bertu**

16:30 32\_2378 Multifunctionality of Sodium Alginate Combined with MXene for Flexible, Transient Energy Storage, Sensing, and Triboelectric Energy Harvesting  
**ULUSAY Servin Çağil**

16:30 33\_2430 Computational Design of Ionomers for Stationary PEMFC Using Molecular Dynamics and Density Functional Theory  
**KANG Jinseok**

16:30 35\_2447 Organic Mixed Conductor-Based Neuromorphic Hardware with Integrated Sensing Processing-Memory Function  
**MA Wei**

16:30 36\_2451 Comprehensive Investigation of Flexible Organic Field-Effect Transistors with Diketopyrrolopyrrole (DPP) Polymer Semiconductors  
**KONWAR Gargi**

16:30 37\_2488 Development of Sweat-Based Lactic Acid and Uric Acid Sensors Using Flexible ITO-PET-Based PANI Composite Films.  
**HUSEYNZADE Fatıma**

16:30 38\_2588 Modified G'Sell & Jonas constitutive law for fatigue response prediction in polyamides used as liner in hydrogen tanks  
**PIERSON Hugo**

16:30 39\_2614 Large-Area, Highly Crystalline Covalent Organic Polymer Thin Films for Flexible and Electronic Applications  
**SRIVASTAVA Diksha**

16:30 40\_263 Multifunctional TiO<sub>2</sub>/Carbon-Dots Nanohybrids Embedded Ethyl Cellulose Fibrous Films for Food Packaging Applications  
**PERUMAL PILLAI Bharath**

16:30 41\_264 Sustainable Bio-Based Solid Electrolytes for Next-Generation Lithium-Ion Batteries  
**OUAHI Hind**

16:30 42\_2718 Photocurable dual-network bio-based resins combining photo/thermal curing and dynamic transesterification for 3d printing  
**ALARCON Rafael**

16:30 43\_2742 From used cooking oils to high-performance PBAT and PBS based biocomposites: amine-assisted compatibilization of sulfite pulp fibers  
**SOUSA Francisco**

16:30 44\_2752 Processing-driven optimization of sustainable ethylcellulose-based films  
**SOUSA Francisco**

16:30 45\_276 Optical Performance Evaluation of PVDF-Based Copolymer and Terpolymer Films for Military Touchscreen: Design to Production  
**SERIN Ramis Berkay**

16:30 46\_2788 Recyclable Polyurethane Thermoset Combines with High Rigidity and Toughness  
**HUYAN Chenxi**

16:30 47\_2848 Separators for in situ gel electrolytes: system-level physical, transport, and electrochemical properties in Li-metal batteries  
**AKHMETOV Nikita**

16:30 48\_2851 Development of bioinspired feather like warm multifunctional thermoregulation fibre through the melt spinning process  
**GHOSH Kumar**

16:30 49\_2865 Insights into the correlation between formulation and structure in biobased vitrimeric epoxy resins  
**MAROTTA Angela**

16:30 51\_2991 Mechanoluminescent polymer composites as smart materials for damage detection  
**CONTINI Emma**

16:30 53\_3041 Fabrication and Simulation Study of a different Organic Semiconductor based OFET for Hydrogen Gas Sensor  
**THAKUR Yogesh**

16:30 54\_3100 A Molecular Dynamics Study Structural Organization and Transition of DNA Induced by Cationic Surfactant Coating, Solvent Exchange, and Transition Metal Doping: Computational Microscopy by All-Atom Molecular Dynamics Simulations  
**IBRAHIM Abubakar Siddiq**

16:30 55\_3110 Simultaneous enhancement of thermal conductivity and adhesion in epoxy-based thermal interface material using alumina-decorated boron nitride composite fillers  
**KIM Min-Su**

16:30 56\_3139 Atomistic molecular dynamics simulations of piezoelectric polymers  
**BAETA Artur**

16:30 57\_3187 Non-Covalently Functionalized Polylactic Acid Films for Sustainable Optical Sensing  
**LONGO Cristiana**

16:30 58\_3355 Al-doped ZnO thin films for flexible optoelectronic applications  
**PETROVA Dimitrina**

16:30 59\_366 New quinoline-based photoinitiators for polymerization applied to dental resins  
**MORENO Vitor Fernandes**

16:30 60\_425 Optimised Cyclic Carbonate Formation from Carbon Dioxide using Metal-Free Porous Polyimides.  
**MINTAH Jerry**

16:30 61\_455 Photosensitization-Controlled Dynamic Organic Room-Temperature Phosphorescence  
**SHAN Jingyi**

16:30 63\_622 Sustainable nanocellulose membrane application in bio-electrochemical cell  
**MUKHERJEE Priya**

16:30 64\_784 Polar Polymers as Electrolytes in Lithium Metal Batteries  
**ZIMMERLI Can**

16:30 65\_813 Sustainable Printed Electrochemical Sensors Based on Biodegradable Polymer Films  
**MERCANTE Luiza**

16:30 66\_835 Poly (lactic acid)/Poly (butylene adipate-co-terephthalate) films with simultaneous high oxygen barrier and fast degradation properties  
**YANG Mengjing**

16:30 67\_95 Optimizing rPET Bottle-Grade Recycling: Impact of Contaminants on the Structural, Thermo-Mechanical, and Processability Characteristics of Recycled PET for Bottle Applications  
**HOUSSEINI Joulia**

Friday May 29

## Q16 Frontiers in Polymer Materials 16

Chairperson(s): LALEVÉE Jacques

RANOO Surojit

[View session abstracts](#)

08:30	3003	Design of dielectric elastomers and electrode materials for micro-generator devices with high energy harvesting performance <b>NING Nanying (Invited)</b>
09:00	3132	Biomaterial-Enabled Electrode Design for Soft, Stretchable, and Sustainable Batteries <b>RAHMANUDIN Aiman</b>
09:15	1406	Freeze-assisted assembly of polymer nanocomposites towards hierarchical porosity for energy-free water harvesting <b>SHEN Xi</b>
09:30	1832	Thermoelectric Properties of Thiophene-Based N-type Copolymers in Doped Oriented Thin Films <b>YOUSSEF Khaled</b>
09:45	194	High dielectric constant polysiloxanes in energy storage and conversion <b>OPRIS Dorina M.</b>

Friday May 29

## Q17 Frontiers in Polymer Materials 17

Chairperson(s): Carroccio

Xie

[View session abstracts](#)

10:30	1034	Nano-enabled Packaging Expanding Shelf-life of Spices and Meat Products – A Journey of Technology Development from Laboratory to Commercial Scale <b>RAY Suprakas Sinha (Invited)</b>
11:00	3052	High-Performance Beeswax Modified Chitosan-Lignin Composite Film for Food Packaging Applications <b>M Farsana</b>
11:15	1163	Engineering biodegradable starch-based nanocomposites for barrier materials and transient electronics <b>PAPAGEORGIU Dimitrios</b>
11:30	2892	Sustainability-weighted design of PLA-based biocomposites: A dual lignocellulosic filler architecture <b>GIOIELLA Lucia</b>
11:45	295	Wear behavior Evaluation and Life Prediction of Rubber Seals used in Vacuum Suction Pads in Automatic Mooring Systems <b>SON Yeonhong</b>