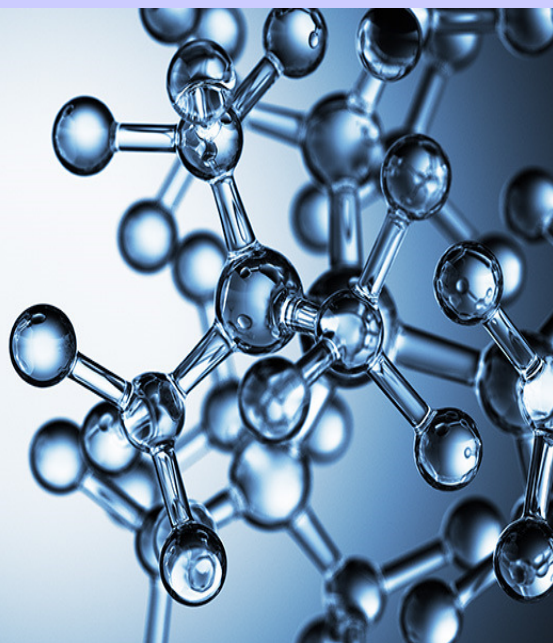


TENTATIVE PROGRAM



**International Conference on
Polymer Science and
Engineering**
October 17-19, 2022



Last Updated: August 08, 2022

Last minute changes due to functional, private, or organizational needs can be necessary. The event organizer accepts no liability for any additional costs caused by a change of program.

Scientific Sessions

- *Polymer Technology
- *Polymer Engineering
- *Polymer Composites
- *Polymer Materials
- *Polymer Chemistry
- *Polymer Science
- *Polymer Physics
- *Polymer Plastics
- *Functional Polymers
- *Polymer Rheology
- *Food Science In Polymers
- *Nano & Biopolymers

- *Synthetic Polymers
- *Optoelectronic Polymers
- *Supramolecular Polymers
- *Polymer 3D Printing
- *Smart & Functional Polymers
- *Peptides, Fibers & Ceramics
- *Polymers In Medicine & Biochemistry
- * Synthesis & Characterization
- * Advances & Applications
- * Surfaces & Interfaces
- * Polymer Waste & Recycling
- * Polymer Emulsions

Keynotes



Alamgir Karim
University of Houston, Houston, TX

Title: To be announced



Ramani Narayan
Michigan State University, East Lansing, MI

Title: Re-designing plastics for environmentally responsible end-of-life – Biobased and Compostable Polymers



Saad A Khan
North Carolina State University, Raleigh, NC

Title: To be announced



Gao Liu
Lawrence Berkeley National Laboratory, Berkeley, CA

Title: The Application of Conductive Polymers in Lithium Rechargeable



Robert J Young
University of Manchester, UK

Title: To be announced



Amar Mohanty
University of Guelph, Canada

Title: To be announced



Manjusri Misra
University of Guelph, Canada

Title: Lightweight Sustainable Composite Materials from Recycled Plastics and Advanced Biocarbons for Electric Vehicle Parts



Richard J Spontak
North Carolina State University, Raleigh, NC

Title: Surface-Functionalized Polymer Membranes for Ultrasensitive Carbon Capture



Sabu Thomas
Mahatma Gandhi University, India

Title: To be announced



Jianyong Ouyang
National University of Singapore, Singapore

Title: To be announced



Ahmed El-Ghannam

The University of North Carolina at Charlotte, Charlotte, NC

Title: Impact on manufacturing parameters on the structure integrity and failure of polypropylene mesh

Oral Presentations

Title to be announced

Sridevi Narayan-Sarathy, The Pennsylvania State University, USA

Application of Synthetic Polymers in the Construction of Oil & Gas Wells

Ashok Santra, Aramco Amecias, Houston, TX

Mechanistic Origins of Low-Temperature Bonding in Solid Polymers

Ajay Vallabh, University of New Hampshire, Durham, NH

Radiosensitizing biopolymeric hydrogel and nanoparticles for cancer chemoradiotherapy

Prateek Bhardwaj, Yale University, New Haven, CT

Additive Manufacturing of Polymeric Scaffolds with Airbrushed Nanofibrous Membranes for Tissue Interface Engineering

Murat Guvendiren, New Jersey Institute of Technology, Newark, NJ

New Type of Conductive Polymeric Material: Magnesium-Carbon Nanotube (CNT)

Yong Jihn Kim, University of Puerto Rico, Mayaguez, PR

Optimization of Particulate Composite Tensile Strength and Modulus Based on Particle Size,

Richard D Sudduth, Materials Research & Processing, LLC, Peachtree Corners, GA

Conventional & Creative Ways to Study Interfacial Chemistry in Polymer Materials

Michelle Gaines, Spelman College, Atlanta, GA

Process Modeling of Composites Using A Multiscale Framework

1D, 2D and 3D Structures

Marianna Maiaru, University of Massachusetts Lowell, Lowell, MA

Title to be announced

Naomi Lee, Northern Arizona University, Flagstaff, AZ

The Amount of Polymer in a Li-ion Battery

Vincent Battaglia, Lawrence Berkeley National Laboratory, Livermore, CA

3D Printing Of Carbon Based Electrodes By Projection Micro Stereolithography For Energy

Mariana Desirée Reale Batista, Lawrence Livermore National Laboratory Livermore, CA

Title to be announced

Jinwen Zhang, Washington State University, Seattle, WA

Analysis of Physicochemical Factors on Solute Diffusion through Block Copolymer

Kenny Mineart, Bucknell University, Lewisburg, PA

Polymer vs. Rubber Asphalt: From Lab to Practice

Zhanping You, Michigan Technological University, Houghton, MI

Value-added Functional Biomaterials from Renewable Resources

Zhaohui Tong, Georgia Institute of Technology, Atlanta, GA

Imine-Linked Vitrimers for Circular & Repairable Composites

Philip Taynton, Mallinda Inc., Welby, CO

Post-consumer recycled polyethylene in product packaging applications

Greg Curtzwiler, Iowa State University, Ames, IA

Title to be announced

Rina Tannenbaum, Stony Brook University, Stony Brook, NY

Structure-Property Relationships of Solid Polymer Electrolytes Based on Phosphonium Ionenes

Asem Abdulahad, Xavier University of Louisiana, New Orleans, LA

A Modular Polymer Platform that Delivers Recombinant Cytokines and chemotherapeutics. Allows for de-escalation of Radiation Therapy in an Animal Model of Head and Neck Squamous Cell Carcinoma

Yazeed Alhiyari, University Of California Los Angeles, Los Angeles, CA

Generalized Protein Adsorption Mechanism on Polymer Nano-Film Surface

Maya Endoh, Stony Brook University, Stony Brook, NY

Physicochemical properties of polyethylene glycol, a green solvent

Markus Hoffmann, SUNY Brockport, Brockport, NY

A dual cellular-heterogeneous catalyst strategy for the production of olefins from glucose

Zhen Wang, University at Buffalo, Hall Buffalo, NY

Title to be announced

Yong L Joo, Cornell University, Ithaca, NY

A biomimetic silicone hydrogel polymer material for contact lenses

James Wu, Alcon, Fort Worth, TX

Designing "Green" Hydrogels for Air Moisture Capture

Simeng Li, California State Polytechnic University, Obispo, CA

Disappearance of polyelectrolyte peak in salt-free solutions

Alexandros Chremos, National Institutes of Health, CNRS, Bethesda, MD

Mucoadhesive and Viscoelastic Properties of Co-Hydrogels formed by Poly(Ethylene Glycol),

Yong Ba, California State University, Long Beach, CA

The origin of life on Earth history was recorded in tRNA sequences

Zachary Frome Burton, Michigan State University, East Lansing , MI

Molecular design of highly conductive electrolytes for lithium batteries: Experimental

Ishrat Khan , Clark Atlanta University, Atlanta, GA

Title to be announced

Urara Hasegawa, Pennsylvania State University, State College, PA

3D Printing of Thermosetting Polymers and Composites via Frontal Polymerization

Mostafa Yourdkhani, Colorado State University, Fort Collins, CO

Patterned liquid crystal elastomer coatings with dynamic topography

Oleg D. Lavrentovich, Kent State University, Kent, OH

Title to be announced

Iris Beatriz Vega Erramuspe, Auburn University, Auburn, AL

Title to be announced

Richard Mu, Tennessee State University, Nashville, TN

Title to be announced

John Texter, Eastern Michigan University, Ypsilanti, MI

Towards Scalable Manufacturing of Color-Changing E-Textiles

Joshua Kaufman, University of Central Florida, Orlando, FL

Title to be announced

Yongsheng Chen, School of Civil and Environmental Engineering, Atlanta, GA

Title to be announced

Jeremiah Woodcock, National Institute of Standards & Technology (NIST), Gaithersburg, MD

Title to be announced

Dmitri Kilin, North Dakota State University, Fargo, ND

Title to be announced

Dennis W Smith, Mississippi State University, Mississippi State, MS

Title to be announced

Eric MacDonald, The University of Texas, El Paso, TX

Title to be announced

Terry L Alford, Arizona State university, Tempe, AZ

Title to be announced

Junjun Ding, Alfred University, Alfred, NY

Material Extrusion 3D Printing of Highly-Filled Copper Powder-Polymer Composites for

Kunal Kate, University of Louisville, Louisville, KY

Reactive Extrusion (REX) Affording Block Copolymers Which Enhance Toughness of Biodegradable PLA

Anthony Keyes, Northern Technologies International Corporation (NTIC), Circle Pines, MN

A ROS-scavenging 'stealth' polymer, poly(thioglycidyl glycerol)(PTGG), outperforms PEG in protein conjugates, and enhances protein stability to environmental and biological stressors

Richard d'Arcy, Vanderbilt University, Nashville, TN

Assessment of Nanoparticles Cytotoxicity and Distribution in Mammalian Cell Culture System

Iyanuoluwani, University of Southern Mississippi, Hattiesburg, MS

GlycoMIP: A New NSF Resource for the Rational Design of Glycomaterials

Robert J. Woods, University of Georgia, Athens, GA

Title to be announced

Anima Bose, University of Houston, Houston, TX

Title to be announced

Richard Hamilton, San Diego State University, San Diego, CA

Functional Polymer Association with PFAS Surfactants

Marina Tsianou, University at Buffalo, Amherst, NY

Title to be announced

S. Indu Rupassara, FruitVaccine Inc., Champaign, IL

Sustainable Bio-binder from Microalgae for Epoxy-based Composite Materials

Lifeng Zhang, North Carolina A&T State University, Greensboro, NC

Probing the diffusion, adhesion and migration of Polymers at Interfaces

Mesfin Tsige, The University of Akron, Akron, OH

Nitrocellulose membranes entrapped with gold nanoparticles for highly sensitive protein detection

Huiyan Li, University of Guelph, Canada

Title to be announced

Wei Tiancheng Wei, University of Windsor, Canada

Optimization of a Polymer-Surfactant Self-Assembling Network System for the Remediation of Sands Contaminated with Heavy Crude Oil

Laura Romero-Zeron, University of New Brunswick, Canada

Thermomechanical properties of semicrystalline thermoplastics: Experimental characterisation, constitutive modelling and numerical implementation

Nan Li, Imperial College London, UK

Remarkable Enhancement of thermal and electrical properties for PEEK composite through a conducting network

Fang Xu, University of Nottingham, UK

Sol-Rec2: Novel Methods for Delamination of Pharma Blister Packs and Other Multi-Layer Materials for Recycling Purposes

Berenika Syrek-Gerstenkorn, University of Leicester, UK

Reinforcement of woven steel mesh insert in the lap shear joint

Yiling Lu, University of Derby, UK

Bio-based flame retardant self-stratifying coatings

Maude JIMENEZ, University of Lille, France

Additive approach to flame retard PBT vitrimer

Samyn Fabienne, Centrale Lille, France

Size effects in nano-reinforced polymers and the influence of NPs surface chemistry – Case of PVDF and Fe₃O₄ NPs

Francisco Sebastian Navarro Oliva, University of Technology of Compiègne, France

Title to be announced

Fahmi Bedoui, UTEAM 66 Landshutlaan, France

Sol-Rec2: Novel Methods for Delamination of Pharma Blister Packs and Other Multi-Layer Materials for Recycling Purposes

Pascal Negre, IPM2, France

Magnetic Molecularly Imprinted Polymer for Cancer Therapy

Griffete Nebewia, Sorbonne Université, France

Prediction of fluids sorption into polymers using machine learning

Benoit Creton, IFP Energies nouvelles, France

Novel processes for casein fiber and microparticle formation

Ronald Gebhardt, RWTH Aachen University, AVT - Soft Matter Process Engineering, Germany

Selected Properties of 3D Printed Clarinets

Bernd Weidenfeller, Clausthal University of Technology, Germany

Challenges In the Experimental Characterization And Modelling Of Polymers In Industrial Applications

Michael Johlitz, Institute of Mechanics, University of the Bundeswehr Munich, Germany

Isoporous block copolymer membranes with tuned pore size and functionality for ultra- and nanofiltration

Volker Abetz, University of Hamburg, Germany

Development of Photocurable Epoxy Nanocomposites using Bacterial Cellulose Nanofibers and a Curing Agent derived from Limonene

Ricardo Acosta Ortiz, Centro de Investigación en Química Aplicada, Mexico

Use of Lignocellulosic waste from garlic as a reinforcer of Polymer matrices

Jose Luis Rivera Armenta, Instituto Tecnológico de Ciudad Madero, Mexico

Genetic algorithms for scaffold design

Maraolina Dominguez Diaz, Center for Research in Engineering and Applied Sciences, Mexico

Title to be announced

Carlos Castro-Guerrero, CONACYT, Mexico

Nanocellulose- Ag/AgCl nanoparticles as an energy storage paper.

Ana Beatriz Morales Cepeda, Tecnológico Nacional De Mexico, Mexico

Density functional theory studies of polypyrrole and polypyrrole derivatives; substituent effect on the optical and electronic properties

Andrzej Lapinski, Institute of Molecular Physics Polish Academy of Sciences, Poland

Processing of bacterial nanocellulose and resulting properties of the biomaterial

Staroszczyk Hanna, Gdańsk University of Technology, Poland

Mixed chitosan-bioglass coating on plasma activated PEEK polymer

Agnieszka Ewa Wiącek, Maria Curie-Skłodowska University, Poland

Structure-properties relations for polystyrene/polyglycidol containing copolymers and microparticles-assemblies - role of copolymer and microparticle architecture

Stanislaw Slomkowski, Centre of Molecular and Macromolecular Studies, Polish Academy of

Influence of montmorillonite's d-spacings on heat release rate of an intumescent formulation in fire spread: a theoretical study

Ana Lucia de Souza Ventapane, Federal University of Rio de Janeiro, Brazil

Gas Permeameter for Polymers and Nanocomposites: improvements and advances in

Gilberto João Pavan, Instituto Federal do Rio Grande do Sul, Brazil

Study of the mechanical strength of jackfruit using 3D printed models

Josiane Dantas, SENAI CIMATEC University Center, Brazil

Oil Recovery by Polymer Flooding and Green Opportunities

Rosangela Barros Zanoni Lopes Moreno, University of Campinas (UNICAMP), Brazil

The use of products derived from waste tires (polymer rubber) via pyrolysis as additives for road pavements

Paolino Caputo, University of Calabria, Italy

Title to be announced

Lucia D'Accolti, University of Bari - Department of Chemistry, Italy

Title to be announced

Gloria Anna Carallo, University of Salento, Italy

Using reactive extrusion to upgrade polymer mixtures in recycling

Christoph Burgstaller, TCKT - Transfercenter für Kunststofftechnik, Austria

Mechanical Property of Epoxy-Modified Cyanate Ester Resin Containing Liquid Crystal Domains

Satoshi Yanaura, Kansai university, Japan

Title to be announced

Hiroyuki Takeno, Gunma University, Japan

Physical chemistry of anisotropic gel formation induced by phase contact and diffusion

Toshiaki Dobashi, Gunma University, Japan

Carbonic Acid Capture-Induced Self-Assembly into Polymer Materials

Eri Yoshida, Toyohashi University of Technology, Japan

Advanced Mechanical Recycle Process based on Physical Degradation / Physical Regeneration Theory

Shigeru Yao, Fukuoka University, Japan

Functionalized Insulated Molecular Wires

Jun Terao, The University of Tokyo, Japan

Synthesis of Multi-metallic Clusters Using a Dendrimer Reactor

Kimihisa Yamamoto, Tokyo Institute of Technology, Japan

Dispersion states of cellulose nanofibers investigated by a time-domain nuclear magnetic resonance (TD-NMR)

Chika Takai-Yamashita, Gifu University, Japan

Janus nanoparticles and a facile solution to determine their amphiphilic character by

Yanio E Milian, Universidad de Antofagasta, Chile

Title to be announced

Zi Chen, Brigham and Women's Hospital, China

Title to be announced

Mingrui Du, Zhengzhou University, China

Metalla-aromatics, New Building Blocks of Conjugated Polymers

Xia Haiping, Southern University of Science and Technology, China

Biobased resins for all-green natural fiber-reinforced polymer composites

Jaehwan Kim, Inha University, Korea (South)

Effect of Surfactant-introduced Ionomers on PTFE-based Reinforced Composite Membrane

Jin Woo Bae, KOREATECH, Korea (South)

CO₂-Assisted P-Type Doping of Organic Interlayers for Perovskite Solar Cells

Jaemin Kong, Gyeongsang National University, Korea (South)

Water Electrospray with Polymer Micro-nozzles and its Applications

Seung Seob Lee, Korea Advanced Institute of Science & Technology (KAIST), Korea (South)

Development of Functional Polymers for Nanomedicines of Anticancer Agents

Kyung Taek Oh, Global Innovative Drugs, College of Pharmacy, Chung-Ang University, Korea

Title to be announced

Jae W. Hahn, Yonsei Univ, Korea (South)

Designing polymer based PIC robot arm with machine learning

Seong S. Cheon, Kongju National University, Korea (South)

Cellulose, a versatile material for food- and bio- industry

Young Hoon Jung, Kyungpook National University, Korea (South)

Polymer composites incorporated with deep eutectic solvents and complex fillers with ionic

Alexandra Pulyalina, Saint Petersburg State University, Russia

Title to be announced

Lucy Vojtova, Brno University of Technology, Czech Republic

Polysaccharide production by lactic acid bacteria

Vera Kuzina Poulsen, Chr. Hansen, Denmark

Drastic Improvement in Physical Properties of Oriented Biodegradable Films

Piyawanee Jariyasakoolroj, Kasetsart University, Thailand

Performance improvement of thermoplastic starch-based materials

Rangrong Yoksan, Kasetsart University, Thailand

Catechol-Based Hypercrosslinked Polymer for Fe Adsorption and Its Application in Fenton Catalysis for Wastewater Treatment

Thanchanok Ratvijitvech, Mahidol University, Thailand

The Modification of Waste Tire Rubber for Mercury Adsorbent

Supitcha Rungrodnimitchai, Thammasat University, Thailand

Study of High Near IR Reflective Materials Based on Crosslinked Composite Nylon 6 Fibers

Gwomei Wu, Chang Gung University, Taiwan

Comparison of Three-phase Blood Flow Simulation with Macromolecules for Effects on Blood Cell Aggregation

Erke Aribas, Istanbul Technical University, Turkey

Crystallization effect towards Mechanical Properties for Additive Manufactured Polyamide-12

How Wei Benjamin Teo, Nanyang Technological University, Singapore

Title to be announced

Irene Villaluenga, POLYMAT, Spain

Mass manufacturing of High Precision Micro-Optical Components through X-Ray Lithography and Determined Chain Scission of Polymers
S M P Kalaiselvi, National University of Singapore, Singapore

Heterocyclic Polyacenes and Quinodimethanes
Chunyan Chi, National University of Singapore, Singapore

Entropy Driven Ultratough Blends from Brittle Polymers: Mechanisms and Applications
Chaobin He, National University of Singapore, Singapore

Bioinspired Mechanically Robust and Functional Ternary Nanocomposites
Paramita Das, Indian Institute of Science Education and Research Bhopal, India

Bioinspired Polydopamine Modified Cellulose Nanocrystals/Sodium Carboxymethylcellulose
Roop Singh Lodhi, Indian Institute of Science Education and Research Bhopal, India

Title to be announced
Sangeetha Sriram, National Institute of Technology Rourkela, India

Electromagnetic Interference Shielding Performance of 2D-Layered Ti_3C_2Tx (MXene)
Nimai Charan Nayak, Siksha 'O' Anusandhan, India

Title to be announced
Anindya Basu, Rajiv Gandhi Technological University, India

Title to be announced
Anindya Deb, Indian Institute of Science, India

Title to be announced
Richa Priyadarshini, Shiv Nadar University, India

Title to be announced
Cokorda Istri Sri Arisanti, Udayana University, Indonesia

Computational Design of Zwitterions-based Protein Delivery Capsules
Sousa Javannikkhah, University of Limerick, Ireland

Title to be announced
Amit Haldar, University of Limerick, Ireland

Title to be announced
Sahrim Ahmad, Universiti Kebangsaan Malaysia, Malaysia

Chitosan Functionalized Isatin Thiosemicarbazones: Synthesis, Characterization, and
Paras Nath Yadav, Tribhuvan University, Nepal

New Click Chemistry Reaction Toward Enhanced Interfacial Bonding Between Functionalized
Khalid Alzebdeh, Sultan Qaboos University, Oman

Glycolysis of Polyurethanes Composites containing PCMs

Ana María Borreguero Simón, Universidad de Castilla-La Mancha, Spain

On application and characterization of Thermal Interface materials in automotive electronics

Emad A Poshtan, Robert Bosch Company, Germany

Innovative Melt Mixing of Graphene Coated Granules for Making Biodegradable Poly(lactide)/Graphene Nanocomposites with Higher Mechanical Strength

Chi Nhan Ha Thuc, Vietnam National University, Vietnam

Maltodextrins Production From Cassava Peels and Cassava Pulp

Aniek Sri Handayani, Institut Teknologi Indonesia, Indonesia

Recent development in the application of supercritical carbon dioxide in textiles

Tarek Abou Elmaaty, Galala University, Egypt

All-electrospun supercapacitor using electrodes of polyaniline fibers

Jose A. Avila-Nino, CONACYT, Mexico

Concept of a dual curing adhesives for paint repairs: identification and quantification of the

Valerie Nassiet, University of Toulouse, France

Elaboration, characterization and evaluation of inorganic polymer for degradation of organic pollutants

Marouane El Alouani, Mohammed V University, Morocco

Control of temperature coefficient of resistance of graphene composite for rapid heating elements

Sung-Hoon Park, Soongsil University, Korea (South)

Development of poly(lactic acid) blend with biodegradable polycarbonate

Nur Azrini Ramlee, Universiti Teknologi MARA, Malaysia

Theoretical prediction of the structural, elastic and phonons properties of $Y_{1-x}Sb_x$ alloys

Yassine Chaouche, Larbi Tebessi University, Algeria

Environmental Application of Microwave-Assisted Watermelon (*Citrullus lanatus*) Rinds

Kehinde N. AWOKOYA, Obafemi Awolowo University, Nigeria

Robust, Stretchable, And Self-Healable Supramolecular Elastomers for Soft Robots

Gurunathan Thangavel, Nanyang Technological University, Singapore

Soft Modification of sawdust as an effective Agro-waste for promising degradation of brilliant

Hossein chamkouri, University of Tabriz, Egypt

Solvent-free conductive coatings containing chemically coupled particles for functional textiles

Jagadeshvaran P L, Indian Institute of Science, India

Bio-approach ZnO/Ag nano-flowers: Enhanced photocatalytic and photoexcited anti-

K Muthukumar, Anna University Tiruchirappalli, India

Pegylated TiO₂ nanoparticles for drug delivery applications

Shilpy Bhullar, Panjab University, India

Point-of-care testing biosensors for cardiac health care

D.Kumar, Delhi Technological University, India

High-Performance Flexible Solid-State Supercapacitors using Super-Ionic Conductive Gel Polymer Electrolytes

Haylay Ghidry Redda, National Taiwan University of Science, Taiwan

Nanocomposite polymer nanofibers for energy device applications

Satyanarayana Nallani, Pondicherry University, India

Polymer recycling in Reverse Osmosis Desalination

Madduri Srija, Homi Bhabha National Institute, India

Title to be announced

Jui Teng Lin, New Vision Inc, Taiwan

Title to be announced

Richard Gross, Rensselaer Polytechnic Institute, Troy, NY

Title to be announced

Qiao Lin, Columbia University, New York, NY

Presentation Slots Available !!!!!