

## SUNDAY, JUNE 22

## Technical Program

2:00 PM REGISTRATION BOOTH OPENS

### SESSION A: INNOVATIONS IN FLUOROPOLYMER SYNTHESIS AND FUNCTIONALIZATION

SESSION CHAIR: BRUNO AMEDURI

3:00 PM OPENING REMARKS – JENA MCCOLLUM, UNIVERSITY OF COLORADO – COLORADO SPRINGS & BRUNO AMEDURI, CNRS

3:15 PM 1. **Alexandru Asandei**, University of Connecticut  
*Group 14 Photomediated Synthesis of Complex Fluoropolymer Architectures*

3:45 PM 2. **Ryohei Kakuchi**, Gunma University (Japan)  
*New Post-Polymerization Modification Reactions Empowered by Fluorine-Containing Units*

4:15 PM BREAK

4:30 PM 3. **Daisuke Kawaguchi**, The University of Tokyo (Japan)  
*Design of Partially Fluorinated Polymers with Similar Water and Oil Repellency to Perfluoropolymers*

5:00 PM 4. **Mustapha Raihane**, Cadi Ayyad University (Morocco)  
*Synthesis and Characterization of Core-double Shell Structured Nanocomposites based on Polyvinylidene Fluoride-grafted-BaTiO<sub>3</sub>/ P(VDF-co-HFP) Films*

5:30 PM WELCOME RECEPTION

DINNER ON YOUR OWN

## MONDAY, JUNE 23

7:00 AM CONTINENTAL BREAKFAST

### SESSION B: ADVANCES IN PFAS DESTRUCTION AND REMEDIATION TECHNOLOGIES

SESSION CHAIR: JENA MCCOLLUM

8:30 AM 5. **Bruno Ameduri**, Institute Charles Gerhardt (CNRS) (France)  
*What do we know about Per- or Polyfluoroalkyl Substances (PFASs)? Issues, Challenges, Regulations and Possible Alternatives*

9:00 AM 6. **Zachary Rogers** and **Zekun Liu**, Claros Technologies  
*High Throughput PFAS Destruction Using UV-Photochemical Process*

9:30 AM 7. **Frank Leibfarth**, University of North Carolina Chapel Hill  
*Novel Sorbents for the Removal of Short Chain PFAS from North Carolina Drinking and Waste Water*

10:00 AM BREAK

### SESSION C: SUSTAINABLE FLUOROPOLYMER PRODUCTION AND RESOURCE RECOVERY

SESSION CHAIR: TBD

10:15 AM 8. **Joseph Thrasher**, Clemson University  
*Perspective: From Alternate Routes to Fluorspar (CaF<sub>2</sub>) or Anhydrous HF (aHF) to Conversion of Fluorspar into a Nucleophilic Fluorinating Agent [1]*

10:45 AM 9. **Michael Davis**, The Chemours Company  
*Sustainable Practices in Fluoropolymer Manufacturing*

11:15 AM 10. **Hisao Hori**, Kanagawa University (Japan)  
*Complete Mineralization of Poly(tetrafluoroethylene-co-hexafluoropropylene) Copolymer (FEP) Using Subcritical Water in the Presence of Alkaline Reagent*

11:45 AM LUNCH ON YOUR OWN

## MONDAY, JUNE 23 CON'T

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### SESSION D: ENVIRONMENTAL IMPACT AND POLICY PERSPECTIVES ON FLUOROPOLYMERS

SESSION CHAIR: FRANK LEIBFARTH

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- 3:15 PM 11. **Deepak Kapoor**, GFL (Germany)  
*Establishing Pillars for Fluoropolymer Advocacy and Advancing State-of-the-art Technology to Minimize Non-polymeric PFAS Emissions across Fluoropolymer Lifecycle*
- 3:45 PM 12. **Barbara J. Henry**, W. L. Gore & Associates  
*If PTFE was Found in the Environment (air, water, soil, sediment), Would it Degrade to or Release Substances of Concern?*
- 4:15 PM 13. **Jay West**, Performance Fluoropolymer Partnership  
*PFAS Policies and their Implications for Fluoropolymers*
- 4:45 PM BREAK
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### SESSION E: OPEN PANEL DISCUSSION IN PFAS REMEDIATION

SESSION CHAIR: BRUNO AMEDURI

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- 5:00 PM **\*\*\*OPEN FORUM DISCUSSION WITH DESIGNATED PANELISTS\*\*\***
- 6:30 PM RECEPTION AND POSTER SESSION
- DINNER ON YOUR OWN
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## TUESDAY, JUNE 24

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- 7:30 AM CONTINENTAL BREAKFAST
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### SESSION F: RHEOLOGICAL INSIGHTS AND MOLECULAR CHARACTERIZATION OF FLUORINATED POLYMERS

SESSION CHAIR: FRANK LEIBFARTH

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- 8:30 AM 14. **Jena McCollum**, University of Colorado Colorado Springs  
*Investigating Synthesis-Driven Structural Changes in Fluoropolymers with Melt Rheology, Double Reptation Models, and Machine Learning*
- 9:00 AM 15. **Nihal Pushkar**, Iowa State University  
*Inverse Modeling for Determination of General Molecular Weight Distributions from Rheological Data*
- 9:30 AM 16. **Cindy (Xin) Yee**, University of Colorado Colorado Springs  
*Machine Learning Techniques to Assess Rheological Similarity in Fluorinated Thermoplastics*
- 10:00 AM BREAK
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### SESSION G: SURFACE ENGINEERING AND ADVANCED COATING TECHNOLOGIES

SESSION CHAIR: JENA MCCOLLUM

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- 10:15 AM 17. **Christopher Crouse**, Air Force Research Laboratory  
*Functional Fluorinated Coatings and Composites and their Applications in Energetics and Environmentally Resilient Materials*
- 10:45 AM 18. **Eugene Caldona**, North Dakota State University  
*Semi-fluorinated Fluoropolymer Coatings with Enhanced Adhesive and Protective Properties*
- 11:15 AM 19. **Sung Park**, Molecular Vista  
*Nanoscale Characterization of Ultrathin Fluoropolymer Films*
- 11:45 AM LUNCH ON YOUR OWN
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## TUESDAY, JUNE 24 CON'T

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SESSION H: VDF-BASED POLYMERS: APPLICATIONS IN ELECTROCALORIC AND COMMERCIAL TECHNOLOGIES

SESSION CHAIR: TBD

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- 2:45 PM 20. **James Goldbach**, Arkema  
*Kynar® PVDF for Lithium Ion Battery and Coatings Applications*
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- 3:15 PM 21. **Heidi Burch**, DuPont  
*Hurdles to Making Electrocaloric Cooling Economically Viable: It's Not All About the Lift*
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- 3:45 PM 22. **Guanchun Rui**, Arkema  
*Optimizing Electrocaloric and Electroactuation Performance in Fluoropolymers by Molecular Design*
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- 4:15 PM BREAK
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SESSION I: ADVANCED FLUOROPOLYMER MEMBRANES AND COMPOSITES

SESSION CHAIR: JENA MCCOLLUM

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- 4:30 PM 23. **Atsushi Takahara**, Kyushu University (Japan)  
*Gas Separation Behaviors of Fluoropolymer Membranes*
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- 5:00 PM 24. **Gao Liu**, Lawrence Berkeley National Laboratory  
*Electrode Binders in Battery Engineering for Lithium-ion and Advanced Lithium-Ion Chemistry*
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- 5:30 PM POSTER AWARDS
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- DINNER ON YOUR OWN
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## WEDNESDAY, JUNE 25

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7:30 AM CONTINENTAL BREAKFAST

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SESSION J: FLUOROPOLYMERS FOR ENERGY, ELECTRONICS, AND EMERGING APPLICATIONS

SESSION CHAIR: BRUNO AMEDURI

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- 8:30 AM 25. **Haoran Sun**, University of South Dakota  
*Preparation of Redox-active Polymer-modified Electrodes by Electrochemical Reductive Defluorination of Perfluoroalkylated Benzophenazine Derivatives*
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- 9:00 AM 26. **Christian Dreyer**, Technical University of Applied Sciences Wildau & Fraunhofer Institute for Applied Polymer Research IAP (Germany)  
*Innovations in Fluoropolymers: Exploring Applications in Optics, Sensing Technologies, and Food Production*
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- 9:30 AM COFFEE BREAK
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- 9:45 AM 27. **Gustavo Munoz**, Mississippi State University  
*Semi-fluorinated Aromatic Ether Polymers: Segmented Perfluorocyclobutyl (PFCB) Copolymers, 6F Materials via Interfacial Electrophilic Polymerization, and other Approaches from Fluoroalkenes*
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- 10:15 AM CLOSING COMMENTS
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- 10:30 AM MEETING ADJOURNS
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## MONDAY, JUNE 23, 2025

### POSTER PROGRAM

1. **Takahiro Asada**, Takafumi Igarashi, and Hiroaki Iwamoto  
AGC, Inc.  
*Development of Highly Rigid Polyimides Containing Perfluorocyclohexylene Moieties*

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2. Morphtec  
Edward Locke, Ph.D., Elijah Jung, Emerald Hawkins, **Kimberly Chapman**  
*Colorimetric Badge for the Detection of Perfluoroisobutylene (PFIB) in Air for Employee Safety*

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3. **Abhirup Dutta** and Alexandru D Asandei  
University of Connecticut  
*Catalytic Synthesis of Perfluoroalkyl Iodide Initiators from their Cl and Br Congeners and Applications in PVDF Complex Architectures*

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4. **Erfan Masaeli**, Gustavo Muñoz, Maxim Solovyev, Charles U. Pittman Jr., and Dennis W. Smith, Jr.  
Mississippi State University  
*Semi-Fluorinated 6F Polyaryl Amines Prepared via Interfacial Electrophilic Polycondensation with Hexafluoroacetone Trihydrate: A Comparative Study with 6F Polyaryl Ethers*

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5. **Mark A. Nosiglia**, Sontia M. Gaither, Jenna C. DeMartino, Emily E. Watts, Orlando Coronell, and Frank A. Leibfarth  
University of North Carolina at Chapel Hill  
*Selective Resins for the Removal of PFAS from Natural Waters*

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6. **Jason Pulfer**, Aldom, M., Colpaert, M., Storr, T., and Friesen, C.M.  
Trinity Western University and Simon Fraser University  
*Mechanochemical Substitutions of Perfluoropyridine: A Facile Approach to Prepolymer Synthesis*

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7. **Zachary Rogers** and **Zekun Liu**  
Claros Technologies  
*High Throughput PFAS Destruction Using UV-Photochemical Process*

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8. **Maxim E. Solovyev**, Gustavo Muñoz, Karl Mukeba, Seyed Erfan Masaeli, Charles U. Pittman Jr., and Dennis W. Smith, Jr.  
Mississippi State University  
*Transforming PFAS into Valuable Fluoropolymers: Polycondensation of Acyclic Perfluoroolefins with Aromatic Bisphenols*

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9. **Masafumi Sugiyama**, Soraki Yamashita, Satoru Hommura, Takashi Okazoe, and Daisuke Kawaguchi  
University of Tokyo  
*Liquid-phase Direct Fluorination of a Perfluoro(vinyl ether)-vinyl Ether Copolymer and its Thin-film Properties*

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10. **Prerna Swaminathan**  
Auburn University  
*Applications of Markov Modeling to the Behavior of Dielectric Fluoropolymers*