

Complex Fluids Design Consortium

Annual Meeting

Friday, January 30, 2026

Materials Research Laboratory, Rm 2053
University of California, Santa Barbara

All Meeting Times are US Pacific Time (California)

Morning Session

9:00-9:20 am	<i>CFDC: Welcome and Update</i> Professor Glenn Fredrickson, Director CFDC, Chemical Engineering and Materials, UCSB
9:20-9:40 am	<i>Molecular Weight Ratio Effects on Polymeric Microemulsion Phase Behavior</i> Dr. Niklas Blagojevic, MRL, UCSB
9:40-10:00 am	<i>Local Hydration Properties of Zwitterionic Functional Groups from Molecular Dynamics Simulations</i> Mizuki Kamata, Chemical Engineering and MRL, UCSB
10:00-10:15 am	Break
10:15-10:35 am	<i>Multiscale Modeling of Surfactant Ternary Phase Behavior via Molecularly Informed Field Theory</i> David Zhao, Chemical Engineering and MRL, UCSB
10:35-10:55 am	<i>Topology of Equilibrium Polymerization</i> Bohan Chu, Materials and MRL, UCSB
10:55-11:15 am	<i>Towards Affordable Simulation of Pump–Probe Spectroscopy in Realistic Systems with Non-Equilibrium Green’s Functions</i> Annabelle Canestraight, Chemical Engineering and Chemistry, UCSB
11:15-11:35 am	<i>Novel Structures at the Sphere/Cylinder Transition in A(BA')_m Copolymer Melts</i> Will Sheppard, Mathematics, UCSB

11:35-1:00 pm **Lunch, MRL 3rd Floor Patio**

Afternoon Session

1:00-1:30 pm *Interfacial Properties of Supramolecular Polymer Compatibilizers*
Dr. Chris Balzer, MRL, UCSB

1:30-1:50 pm *Predicting Sequence-Dependent Polymer Properties via Multiscale Simulations*
Daniela Rivera Mirabal, Chemical Engineering, UCSB

1:50-2:10 pm *Predicting Peptoid Formulation Phase Behavior Using a Molecularly Informed Field Theory*
Michael Meng, Chemical Engineering, UCSB

2:10-2:30 pm *Computational Studies for Designing Tough and Selective Tetrablock Copolymer Membranes*
Dr. Elise Chen, MRL, UCSB

2:30-2:50 pm *Coherent-State Field Theory for Annihilation Reactions*
Dr. Yao Xiong, MRL, UCSB

2:50-3:10 pm *PolyFTS and Predict in Practical Industrial Applications and Future Prospects in an AI Agentic World*
Dr. John Kraft, U. Houston and Kraton Corporation

3:10-3:15 pm Wrap-up, adjourn CFDC Meeting

CFDC Dinner – 6:00 pm, Flavor of India