Monday, 14 June	
09:00 - 11:00	**Session: Langmuir Graduate Student Oral Presentation Award Symposium** Organizer/s: Ramanathan Nagarajan Chair/s: Lisa Biswal
09:00	Mon-LGS1-01 **Ionomer/Catalyst Particle Interactions in Fuel-Cell Inks** Sarah Berlinger sarah_berlinger@berkeley.edu (Department of Chemical & Biomolecular Engineering, University of California, Berkeley | Energy Technologies Area, Lawrence Berkeley National Laboratory)
09:20	Mon-LGS1-02 **Elastic turbulence generates anomalous flow resistance in porous media** Christopher Browne cabrowne@princeton.edu (Princeton University)
09:40	Mon-LGS1-03 **Synthesis and Assembly of Polymer-Patched Nanoparticles** Ahyoung Kim ahyoung2@illinois.edu (University of Illinois, Urbana-Champaign)
10:00	Mon-LGS1-04 **Shear-Induced Grain Boundary Formation in Magnetically Actuated Colloidal Sheets** Dana Lobmeyer dml7@rice.edu (Rice University, Chemical and Biomolecular Engineering Department)
10:20	Mon-LGS1-05 **Quantifying In-Solution Biomolecular Exchange Dynamics on Carbon Nanotubes toward Improved Nanosensor Design** Rebecca Pinals rebecca_pinals@berkeley.edu (Department of Chemical and Biomolecular Engineering, University of California at Berkeley, Berkeley)
10:40	Mon-LGS1-06 **Resolving shear and dilatational rheology for complex fluid interfaces** Ying-Heng Tein ystein@udel.edu (Department of Chemical and Biomolecular Engineering, University of Delaware)
09:00 - 11:00	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Jaime Juarez
09:00	Mon-AM1-01 **Computer Simulation of Self-Assembly by Multipolar Colloidal Particles and Their Mixtures (Keynote Lecture)**

	Carol Hall hall@ncsu.edu (Department of Chemical and Biomolecular Engineering North Carolina State University)
09:40	Mon-AM1-02 **Self-assembly of Symmetric Polystyrene-block-Poly(methacrylic acid) diblock copolymer in Salt-Free Aqueous Solution by Explicit Atomistic MD Simulations** POOJA SAHU poojasahunitrkl@gmail.com (Department of Chemical Engineering, IIT Madras, Chennai)
10:00	Mon-AM1-03 **Self-Assembly of an Amphiphilic Donor-Acceptor Isoindigo-based Fluorophore into Spherical Aggregates for use in NIR Bioimaging Applications** Nicholas Sparks nsparks1@go.olemiss.edu (Department of Chemistry and Biochemistry, The University of Mississippi)
10:20	Mon-AM1-04 **Charge transport of ionic liquids in self-assembly of triblock copolymer/ionic liquid/monomer mixtures** ALIREZA BANDEGI alirezab@nmsu.edu (Chemical and Materials Engineering, New Mexico State University, Las Cruces, NM 88003, USA)
10:40	Mon-AM1-05 **Towards Supramolecular Self Assembly by Programmable Site-Specific Functionalization of DNA Origami with Polynucleotide Brushes** Stefan Zauscher zauscher@duke.edu (1) Department of Mechanical Engineering and Materials Science, Duke University, Durham, NC)
09:00 - 11:00	**Session: Emulsions, Bubbles, Foams** Organizer/s: Cari Dutcher, Karthik Nayani, Daniel Miller Chair/s: Cari Dutcher
09:00	Mon-BM1-01 **Continuous Production of Rugged Nanoemulsions/Nanoparticles Generated by the Ouzo Effect** Joseph Rosenfeld jrose92@seas.upenn.edu (Department of Chemical and Biomolecular Engineering, University of Pennsylvania)
09:20	Mon-BM1-02 **Surface tension of micro- and milli-meter size bubbles in surfactant-laden aqueous solutions** Shihao Liu liu00033@umn.edu (Department of Mechanical Engineering, University of Minnesota - Twin Cities)

09:40	Mon-BM1-03 **Artificial intelligence enhances control parameter space investigation in flow-focusing droplet generation** Evyatar Shaulsky e.shaulsky@northeastern.edu (Northeastern University, Dept of Chemical Engineering)
10:00	Mon-BM1-04 **Bijel derived hydrogel ropes via microfluidic twisting** Shankar Kharal kharal98@students.rowan.edu (Rowan University, Henry M. Rowan college of Engineering, New Jersey, USA)
10:20	Mon-BM1-05 **Synthesis and concentration of size-selected acoustically vaporizable nanodrops** Awaneesh Upadhyay awup6675@colorado.edu (Mechanical Engineering, University of Colorado Boulder, Boulder, CO)
10:40	Mon-BM1-06 **Shape Memory Poly(β-hydroxythioether) Foams for Oil Remediation in Aquatic Environments or Biomedical Tissue Scaffolding Implants** Andrew Weems weemsac@ohio.edu (Ohio University, Athens, OH)
09:00 - 11:00	**Session: Active & Responsive Colloidal Matter** Organizer/s: Bhuvnesh Bharti, Carlos Silvera Batista Chair/s: Bhuvnesh Bharti
09:00	Mon-CM1-01 **Superdiffusive paste from active particles driven by collective phenomena of ionic salt dissolution** Nidhi M. Diwakar nmdiwaka@ncsu.edu (North Carolina State University)
09:20	Mon-CM1-02 **Spontaneous helix formation in thermoresponsive colloidal chains** Bipul Biswas bbiswas@umass.edu (PSE Division, NCL Pune | Department of Physics, UMass Amherst)
09:40	Mon-CM1-03 **NIPA-Shelled Liquid-Core Capsules Exhibiting Reversible Temperature-Induced Pearlescence** Medha Rath mrath@umd.edu (Department of Chemistry, University of Maryland, College Park)
10:00	Mon-CM1-04 **Multi-stimuli responsive vesicles** Sai Nikhil Subraveti nikhil15@terpmail.umd.edu

	(University of Maryland - College Park)
10:20	Mon-CM1-05 **Enzyme-powered protocells from double emulsion-templated microcapsules** Jessica O'Callaghan jaoc@seas.upenn.edu (Department of Chemical and Biomolecular Engineering, University of Pennsylvania)
10:40	Mon-CM1-06 **Methods for encapsulating mobile microparticles** Samuel Wilson-Whitford saw319@lehigh.edu (Department of Chemical and Biomolecular Engineering, Lehigh University, Bethlehem, PA, USA | Center for Polymer Science and Engineering, Lehigh University, Bethlehem, PA, USA)
09:00 - 11:00	**Session: Rheology & Complex Fluids** Organizer/s: Jeffrey Richards, Amanda Marciel Chair/s: Amanda Marciel
09:00	Mon-DM1-01 **Colloidal vitrification is a spontaneous non-equilibrium transition driven by osmotic pressure (Keynote Lecture)** Roseanna Zia rzia@stanford.edu (Stanford University)
09:40	Mon-DM1-02 **Investigation of the Yielding Transition in Concentrated Colloidal Systems Via Rheo-XPCS** Simon Rogers sarogers@illinois.edu (Department of Chemical and Biomolecular Engineering, University of Illinois at Urbana-Champaign)
10:00	Mon-DM1-03 **Effect of Interdroplet Interactions on the Rheology of High Internal Phase Emulsions (HIPEs)** Muchu Zhou muchu@nmsu.edu (Department of Chemical and Materials Engineering, New Mexico State University, Las Cruces, NM 88003)
10:20	Mon-DM1-04 **Glass and gel fromations in macro- and nano-emulsions in the presence of micellar depletion attraction** Reza Foudazi rfoudazi@nmsu.edu (Department of Chemical and Material Engineering, New Mexico State University, Las Cruces, NM)
10:40	Mon-DM1-05

	Shear thickening behavior of silica-based nanofluids Parvin Alaee parvin02@mail.ubc.ca (University of British Columbia, Kelowna, BC, Canada)
09:00 - 11:00	**Session: Advanced Experimental Methods in Colloid and Interface Science** Organizer/s: Qian Chen, Muzhou Wang Chair/s: Qian Chen
09:00	Mon-EM1-01 **In Situ Methods to Probe Colloidal Assembly and Interactions in Nonclassical Crystallization (Keynote Lecture)** Jeffrey Rimer jrimer@central.uh.edu (University of Houston)
09:40	Mon-EM1-02 **Scattering Morphology Resolved Total Internal Reflection Microscopy of Anisotropic Particles** Christopher Wirth wirth@case.edu (Chemical and Biomolecular Engineering Department, Case Western Reserve University, 2102 Adelbert Road, Cleveland, Ohio USA 44106)
10:00	Mon-EM1-03 **Can microfluidic SANS be used to probe the interfacial coating on a drop?** Emily Jamieson jamieson.e@unimelb.edu.au (Department of Chemical Engineering, The University of Melbourne, Parkville 3010, Australia)
10:20	Mon-EM1-04 **Surface Tension of Binary Mixtures of Pentane and 2-Methylpentane for Use in Wickless Heat Pipes** Angelo S. Visco avisco@kent.edu (Kent State University)
10:40	Mon-EM1-05 **Interfacial flows and instabilities of Boger Fluids** Fahed Albreiki fahedh.albreiki@gmail.com (Department of Chemical Engineering University of Illinois at Chicago)
09:00 - 11:00	**Session: Wetting and Adhesion** Organizer/s: Shu Yang, Dongjin Seo Chair/s: Dongjin Seo
09:00	Mon-GM1-01 **Cell-Material Interactions: Engineering Materials to Manipulate Cellular Processes (Keynote Lecture)** Kelly Schultz kes513@lehigh.edu (Department of Chemical and Biomolecular Engineering Lehigh University)

09:40	Mon-GM1-02 **Drop oscillation dynamics on thin immiscible liquid films** Huy Tran huy_tran1@baylor.edu (Mechanical Engineering at Baylor University)
10:00	Mon-GM1-03 **Relation between a Microphase-separated Structure and Adhesion Properties of Polyurethane-adhered Single Lap Joints** Ken Kojio kojio@cstf.kyushu-u.ac.jp (Kyushu University)
10:20	Mon-GM1-04 **How various surfactant transport pathways affect Marangoni spreading** Madeline Sauleda msauleda@andrew.cmu.edu (Carnegie Mellon University, Physics Department | Carnegie Mellon University, Center for Complex Fluids Engineering)
10:40	Mon-GM1-05 **Marangoni Transport Simulation for Two Interacting Surfactant Sources** Steven Iasella Iasel001@umn.edu (University of Minnesota, Department of Chemical Engineering and Materials Science)
09:00 - 11:00	**Session: Colloids and Interfaces in Energy Applications** Organizer/s: Valentina Prigiobbe, Clint Aichele Chair/s: Valentina Prigiobbe
09:00	Mon-IM1-01 **Foam Trapping and Mobility in Porous Media in Surfactant-Alternating-Gas Injection for Enhanced Oil Recovery (Keynote Lecture)** William Rossen w.r.rossen@tudelft.nl (Dept. of Geoscience and Engineering, Delft University of Technology, The Netherlands)
09:40	Mon-IM1-02 **Effects of interfacial properties on the nucleation of gas hydrates in sediments** Patricia Taboada-Serrano ptsche@rit.edu (Department of Chemical Engineering, Rochester Institute of Technology | Microsystems Engineering, Rochester Institute of Technology)
10:00	Mon-IM1-03 **Electrolyte-dependent structural heterogeneity and its atomic origin within primary cathode nanoparticles** Wenxiang Chen wxchen@illinois.edu

	(Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801, United States | Materials Research Laboratory, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801, United States)
10:20	Mon-IM1-04 **Characterizing solvency effects on asphaltenes in bulk dispersions and their connection to interfacial properties.** Olivia Haider ohaider@andrew.cmu.edu (Carnegie Mellon University)
09:00 - 11:00	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Lydia Kisley
09:00	Mon-KM1-01 **Modelling of virus survival time in respiratory droplets on surfaces** Nicolò Giuseppe Di Novo nicolo.dinovo@unitn.it (Laboratory of Bio-inspired, Bionic, Nano, Meta Materials & Mechanics, Department of Civil, Environmental and Mechanical Engineering, University di Trento, Trento, Italy | Micro Nano Facility, FBK-Sensors and Devices, Trento, Italy)
09:20	Mon-KM1-02 **Reversible capturing of living bacteria on a non-adhesive surfaces via depletion force** Wuqi Niu wuqiniu@umass.edu (Polymer Science and Engineering Department, University of Massachusetts Amherst)
09:40	Mon-KM1-03 **Continuous, Real-Time Detection of Protein-Protein Interactions at the Solid/Liquid Interface** Christopher Reynolds cmr397@psu.edu (Department of Chemistry, The Pennsylvania State University)
10:00	Mon-KM1-04 **Copper Oxide Coatings that Reduce Infection by SARS-CoV-2** William Ducker wducker@vt.edu (Department of Chemical Engineering Virginia Tech)
10:20	Mon-KM1-05 **kT-scale Colloidal Interactions Mediated by Protein Coronas on PEG and Zwitterionic Copolymers** Eugenie Jumai'an ejumaia1@jhu.edu (Chemical & Biomolecular Engineering, Johns Hopkins University, Baltimore, MD 21218)

10:40	Mon-KM1-06 **Design rules for tuning protein adsorption on grafted zwitterionic thin films** Syeda Tajin Ahmed tajinahmed0802@gmail.com (Department of Chemical and Biomolecular Engineering, University of Illinois at Urbana-Champaign)
09:00 - 11:00	**Session: Plasmonics** Organizer/s: Matthew Sheldon, Stephan Link Chair/s: Stephan Link
09:00	Mon-MM1-01 **Aluminum Nanocrystal Growth Chemistry: Similarities to our Noble Neighbors (Keynote Lecture)** Naomi Halas halas@rice.edu (Rice University)
09:40	Mon-MM1-02 **Advances in Single-Particle Spectroscopy Using Fast Electrons** David Masiello masiello@uw.edu (Department of Chemistry, University of Washington)
10:05	Mon-MM1-03 **Synthetic Size Control over Plasmonic Magnesium Nanoparticles** Elizabeth Hopper erh64@cam.ac.uk (Department of Materials Science and Metallurgy, University of Cambridge, 27 Charles Babbage Road, Cambridge, United Kingdom, CB3 0FS | Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge, United Kingdom, CB2 3EQ | Department of Chemical Engineering and Biotechnology, University of Cambridge, Philippa Fawcett Drive, Cambridge, United Kingdom, CB3 0AS)
10:20	Mon-MM1-04 **Nano-Plasmonic photo-catalysis - “Hot electrons” or just heating?** Yonatan Dubi jdubi@bgu.ac.il (Department of chemistry, Ben Gurion University of the Negev)
10:45	Mon-MM1-05 **Plasmon-Mediated Methyl Rearrangement with Nanoscale Spatial Control** Chris Warkentin* warke023@umn.edu (University of Minnesota, Department of Chemistry)
09:00 - 11:00	**Session: Fundamental/General Aspects of Colloids and Interfaces** Organizer/s: Ning Wu, Vivek Narsimhan Chair/s: Vivek Narsimhan
09:00	Mon-QM1-01

	Rotational and translational diffusion in a 2D colloidal glass-former (Keynote Lecture) Eric Weeks erweeks@emory.edu (Physics Dept., Emory University, Atlanta GA, USA)
09:40	Mon-QM1-02 **Simulation of Finite-sized Particle Transport through Porous Media** Deepak Mangal deepak.mangal.iit@gmail.com (Chemical & Biomolecular Engineering, University of Houston, Houston, TX, USA)
10:00	Mon-QM1-03 **Atmospheric Transport of Radioactive Debris** Alexander Wiechert awiechert3@gatech.edu (School of Civil and Environmental Engineering, Georgia Institute of Technology)
10:20	Mon-QM1-04 **Temperature dependence of diffusiophoresis using a novel microfluidic approach.** Parth Shah parthshah@ucsb.edu (Department of Chemical Engineering, University of California, Santa Barbara)
10:40	Mon-QM1-05 **Spatial Segregation of Spherical Microparticles by Rubbing-Induced Triboelectrification on Fluorocarbon-Patterned Surfaces** Ignaas Jimidar i.s.m.jimidar@utwente.nl (Department of Chemical Engineering CHIS Vrije Universiteit Brussel | Mesoscale Chemical Systems (MCS) University of Twente)
11:20 - 12:10	**Session: Plenary Lecture 1** Organizer/s: Ramanathan Nagarajan
11:20	Introduction of Plenary Speaker by Kathleen Stebe, COLL Past Chair
11:25	Mon-SM1-01 **Colloidal assembly in 2D: From tunable pairwise potentials to elaborate contoured assemblies** Maria Santore santore@mail.pse.umass.edu (Department of Polymer Science and Engineering University of Massachusetts Amherst, MA 01003)
12:40 - 13:30	**Session: Plenary Lecture 2** Organizer/s: Ramanathan Nagarajan Chair/s: Lisa Biswal
12:40	Introduction of Plenary Speaker by Sibani Lisa Biswal, 95th CSSS Co-Chair
12:45	Mon-SM2-01

	Surfing the Surface of Colloidal Gold Nanocrystals Catherine Murphy murphycj@illinois.edu (Department of Chemistry, University of Illinois at Urbana-Champaign)
13:40 - 15:00	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Samanvaya Srivastava
13:40	Mon-AM2-01 **Exploring The Nanoarchitecture and Rheological Properties of Zwitterionic Surfactant Based pH-tunable Dynamic Binary Complex** Bhargavi Bhat bbhat2@tamu.edu (Department of Chemical Engineering, Texas A&M University)
14:00	Mon-AM2-02 **Controllable Assemblies of Polymer Nanoparticles: A Hierarchical Approach** Nikunjkumar Visaveliya nvisaveliya@ccny.cuny.edu (The City College of New york)
14:20	Mon-AM2-03 **Using Smart Hydrogel Interfaces to Lock DNA-Linked Nanoparticle Assemblies** Mathew Maye mmmaye@syr.edu (Department of Chemistry, Syracuse University)
14:40	Mon-AM2-04 **Peptoid-directed assembly of CdSe nanoparticles** Madison Monahan gladdm@uw.edu (Department of Chemistry, University of Washington)
13:40 - 15:00	**Session: Emulsions, Bubbles, Foams** Organizer/s: Daniel Miller, Karthik Nayani, Cari Dutcher Chair/s: Karthik Nayani
13:40	Mon-BM2-01 **Liquid Foams as Template for Macroporous Hydrogels Synthesis** Ryan Zowada rzowada@nmsu.edu (New Mexico State University)
14:00	Mon-BM2-02 **Immobilizing hexadecane nanoemulsion drops in polyacrylamide hydrogels** Reghan J. Hill reghan.hill@mcgill.ca (Department of Chemical Engineering, McGill University)
14:20	Mon-BM2-03 **Colloidal gelation of concentrated nanoemulsion at different depletant concentrations** Zahra Abbasian Chaleshtari abbasian@nmsu.edu

	(Department of Chemical & Materials Engineering, New Mexico State University, Las Cruces, NM)
14:40	Mon-BM2-04 **Co-surfactant based interfacial strategies for predicting multi-nanoemulsion formation** Tanvi Sheth tsheth@ucsb.edu (University of California, Santa Barbara)
13:40 - 15:00	**Session: Active & Responsive Colloidal Matter** Organizer/s: Bhuvnesh Bharti, Carlos Silvera Batista Chair/s: Carlos Silvera Batista
13:40	Mon-CM2-01 **Light-powered motors and thermally reconfigurable low-symmetry fluids in nematic colloidal dispersions of discs (Keynote Lecture)** Ivan Smalyukh ivan.smalyukh@colorado.edu (Department of Physics, University of Colorado Boulder, CO 80309, USA)
14:20	Mon-CM2-02 **Self-propelled liquid crystal droplets that trigger local polymerization** Xin Wang xw543@cornell.edu (Robert Frederick Smith School of Chemical and Biomolecular Engineering, Cornell University)
14:40	Mon-CM2-03 **Self-Locomotive Antimicrobial Microparticles for Enhanced Biofilm Removal** Yu-Heng Deng yhdeng2@illinois.edu (Department of Chemical and Biomolecular Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, USA)
13:40 - 15:00	**Session: Rheology & Complex Fluids** Organizer/s: Jeffrey Richards, Amanda Marciel Chair/s: Amanda Marciel
13:40	Mon-DM2-01 **Three-Dimensional Technique for Measuring Sag in Drying Coatings** Marola Issa marola.issa@case.edu (Department of Chemical and Biomolecular Engineering, Case School of Engineering, Case Western Reserve University, Cleveland, Ohio 44106, United States)
14:00	Mon-DM2-02 **In-situ Microrheology of Drying Paint** Maria Chiara Roffin mar920@lehigh.edu (Department of Chemical and Biomolecular Engineering, Lehigh University, PA, USA)

14:20	Mon-DM2-03 **Influence of Polymer Diffusivity in Nanoconfinement on the Onset of Viscous Fingering** James Gilchrist gilchrist@lehigh.edu (Polymer Science and Engineering, Lehigh University | Department of Chemical and Biomolecular Engineering, University of Delaware)
13:40 - 15:00	**Session: Advanced Experimental Methods in Colloid and Interface Science** Organizer/s: Qian Chen, Muzhou Wang Chair/s: Muzhou Wang
13:40	Mon-EM2-01 **Nanoparticle Tracking to Probe Transport in Porous Media (Keynote Lecture)** Daniel Schwartz Daniel.schwartz@colorado.edu (Department of Chemical and Biological Engineering University of Colorado Boulder)
14:20	Mon-EM2-02 **Using Experimental 'Molecular Videography' to Resolve Nanostructure Dynamics in Soft and Biomolecular Materials** John Smith jwsmith6@illinois.edu (Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign)
14:40	Mon-EM2-03 **Deep Learning-Assisted Analysis of Anomalous Nanoparticle Surface Diffusion in Liquid Phase Transmission Electron Microscopy** Vida Jamali vidaj@berkeley.edu (University of California Berkeley)
13:40 - 15:00	**Session: Wetting and Adhesion** Organizer/s: Shu Yang, Dongjin Seo Chair/s: Shu Yang
13:40	Mon-GM2-01 **Stimuli Responsive Reversible Adhesion Between Physical and Chemical Networks** Leah Borden lkborden@umd.edu (University of Maryland College Park, MD)
14:00	Mon-GM2-02 **Selective flow through membrane pores with in situ change of wettability** Dongjin Seo dongjinseo@byu.edu (Chemical Engineering Department, Brigham Young University, Provo UT 84059)
14:20	Mon-GM2-03 **Contactless, Reversible Droplet Contact Angle Modulation by Dielectric Charge Injection**

	Paradorn Rummaneethorn pr9@seas.upenn.edu (Department of Chemical and Biomolecular Engineering, University of Pennsylvania)
14:40	Mon-GM2-04 **Using colloidal deposition to mobilize immiscible fluids from porous media** Joanna Schneider js105@princeton.edu (Chemical and Biological Engineering, Princeton University)
13:40 - 15:00	**Session: Colloids and Interfaces in Energy Applications** Organizer/s: Clint Aichele, Valentina Prigiobbe Chair/s: Clint Aichele
13:40	Mon-IM2-01 **Colloids & Interfacial Sciences in Energy Applications (Keynote Lecture)** Krishnaraj Sambath ksambath@chevron.com (Chevron)
14:20	Mon-IM2-02 **Modified Interfacial Energy Stabilizes the Perovskite Phase of $CsPbI_3$ in Colloidally Assembled Oxide Scaffolds** Arkita Chakrabarti ac3868@drexel.edu (Department of Chemical and Biological Engineering, Drexel University)
13:40 - 15:00	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Sarah Perry
13:40	Mon-KM2-01 **Cholesterol Induced Morphological Instabilities and Transitions in Phospholipid Monolayers** Cain Valtierrez-Gaytan valti009@umn.edu (Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN, 55455, USA)
14:00	Mon-KM2-02 **Visualizing early-stage coacervate formation with a phase field model for mixed polyelectrolyte solutions** Chelsea Edwards chelsea_edwards@ucsb.edu (Materials Research Laboratory and Department of Chemical Engineering, University of California, Santa Barbara, CA 93106, USA)
14:20	Mon-KM2-03 **A functional DNA liquid (Keynote Lecture)** Omar Saleh saleh@ucsb.edu (Materials Dept, UC Santa Barbara)
13:40 - 15:00	**Session: Plasmonics**

	Organizer/s: Matthew Sheldon, Stephan Link Chair/s: Stephan Link
13:40	Mon-MM2-01 **Plasmon-induced hot carrier generation, relaxation, and applications (Keynote Lecture)** Peter Nordlander nordland@rice.edu (Rice University)
14:20	Mon-MM2-02 **Particle plasmons as omnipotent probe of surface photochemistry** Terefe Habteyes habteyes@unm.edu (University of New Mexico)
14:45	Mon-MM2-03 **The Connection Between Plasmon-Mediated Hot Carrier Dynamics and the Surface Enhanced Raman Spectroscopy Background** Shengxiang (Joey) Wu sxwu@csrc.ac.cn (Beijing Computational Science Center)
13:40 - 15:00	**Session: Fundamental/General Aspects of Colloids and Interfaces** Organizer/s: Ning Wu, Vivek Narsimhan Chair/s: Ning Wu
13:40	Mon-QM2-01 **Unexpected Chain Collapsing and Phase Separation in Polymer Solutions with Strong Polymer-Solvent Interactions** Shengfeng Cheng chengsf@vt.edu (Virginia Tech)
14:00	Mon-QM2-02 **Synthesis of Nanoscale Polymer Particles: Key Roles of Interfacial Agents in Controlling Size, Shape, and In Situ Assemblies** Nikunjkumar Visaveliya nvisaveliya@ccny.cuny.edu (The City College of New york)
14:20	Mon-QM2-03 **Effect of Extreme Nanoconfinement on the Thermodynamics of Polymer Blends in Dense Nanoparticle Packings** Anastasia Neuman annaneu@seas.upenn.edu (Department of Chemical and Biomolecular Engineering, University of Pennsylvania, Philadelphia, Pennsylvania 19104, USA)
14:40	Mon-QM2-04 **Imaging nanoparticles with a trick of the light** Christopher Bolton boltonc@unimelb.edu.au (Department of Chemical Engineering, University of Melbourne)

15:20 - 16:40	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Jaime Juarez
15:20	Mon-AM3-01 **The effect of pi-interactions on the self-assembly of patterned polypeptides** Sara Tabandeh sara.tabandeh@knights.ucf.edu (Department of Materials Science and Engineering, University of Central Florida, Orlando, FL, USA)
15:40	Mon-AM3-02 **Structure and Phase Behavior of Polyelectrolyte–Nanoparticle Complexes** Advait Holkar advaitholkar@g.ucla.edu (University of California Los Angeles)
16:00	Mon-AM3-03 **Polymer-Nanoparticle Complex Coacervates** Mingjun Zhou mingjunzhou@umass.edu (Department of Chemical Engineering, UMass Amherst | Department of Polymer Science and Engineering, UMass Amherst)
16:20	Mon-AM3-04 **Designing complex polymer colloids for films with enhanced properties and self-stratification** Piyush K Singh pksingh2@illinois.edu (Department of Chemical and Biomolecular Engineering, University of Illinois at Urbana-Champaign, Urbana, IL | Beckman Institute for Advanced Science and Technology, Urbana, IL)
15:20 - 16:40	**Session: Emulsions, Bubbles, Foams** Organizer/s: Daniel Miller, Karthik Nayani, Cari Dutcher Chair/s: Daniel Miller
15:20	Mon-BM3-01 **Evaluating the Surfactant Performance in Achieving the Optimal Oil-Water Separation in Emulsion Systems using HLD-NAC model** Hassan Ghasemi hassan.ghasemi@modares.ac.ir (Tarbiat Modares University)
15:40	Mon-BM3-02 **Effect of processing conditions on the stability and texture of cosmetic emulsions** Rebecca Chen rebecca.chen@rd.loreal.com (L'Oreal USA)
16:00	Mon-BM3-03

	Getting out of a tight spot: Using complex fluids to remove trapped droplets from porous media (Keynote Lecture) Sujit Datta ssdatta@princeton.edu (Chemical and Biological Engineering, Princeton University)
15:20 - 16:40	**Session: Active & Responsive Colloidal Matter** Organizer/s: Bhuvnesh Bharti, Carlos Silvera Batista Chair/s: Wyatt Shields
15:20	Mon-CM3-01 **Automating Bayesian inference and design for acoustic levitation and propulsion** Kiran Dhatt-Gauthier kdg2128@columbia.edu (Department of Chemical Engineering, Columbia University, New York, NY 10027, USA)
15:40	Mon-CM3-02 **Vapor pressure of superparamagnetic colloidal cluster** Kedar Joshi kedar.joshi@rice.edu (Department of Chemical and Biomolecular Engineering, Rice University)
16:00	Mon-CM3-03 **Biosensors Based on Complex Liquid Crystal Emulsions** Alberto Concellón aconcell@mit.edu (Department Chemistry, Massachusetts Institute of Technology, United States)
15:20 - 16:40	**Session: Rheology & Complex Fluids** Organizer/s: Jeffrey Richards, Amanda Marciel Chair/s: Amanda Marciel
15:20	Mon-DM3-01 **Temperature−structure−rheology response of portlandite suspensions** Sharu Bhagavathi Kandy sharu.bk@g.ucla.edu (Laboratory for the Chemistry of Construction Materials (LC2), Department of Civil and Environmental Engineering, University of California, Los Angeles, CA 90095, USA | Institute for Carbon Management (ICM), University of California, Los Angeles, CA 90095, USA)
15:40	Mon-DM3-02 **Understanding the true nature of Na-montmorillonite aqueous suspensions** Mohmmad Shoaib mohammad.shoaib@mail.utoronto.ca (Department of Chemical Engineering and Applied Chemistry, University of Toronto, Canada)
16:00	Mon-DM3-03

	Microrheological characterization of covalent adaptable hydrogel degradation in response to environmental pH changes that mimics in the gastrointestinal tract Nan Wu naw316@lehigh.edu (Lehigh University Chemical and Biomolecular Engineering)
16:20	Mon-DM3-04 **Rheological properties of phase transitions in polydisperse and monodisperse colloidal rod system** Shiqin He shh317@lehigh.edu (Chemical and Biomolecular Engineering, Lehigh University, Bethlehem, PA, 18015, United States)
15:20 - 16:40	**Session: Advanced Experimental Methods in Colloid and Interface Science** Organizer/s: Qian Chen, Muzhou Wang Chair/s: Muzhou Wang
15:20	Mon-EM3-01 **Detecting and distinguishing particles in heterogeneous colloidal mixtures by size, refractive index and symmetry with Total Holographic Characterization** Rostislav Boltyanskiy laphilips@gmail.com (Spheryx, Inc.)
15:40	Mon-EM3-02 **Investigating the Distribution of Surface Ligands in Drop-Casted Colloidal Gold Nanoparticles Using Scanning Near-Field Optical Microscopy (s-SNOM)** Hamed Kookhaee Kookhaee@unm.edu (University of New Mexico | Center for High Technology Materials)
16:00	Mon-EM3-03 **Self-assembly of amphiphilic fluorescent nanoparticles for bioimaging** Tharindu Ranathunge garanath@go.olemiss.edu (Department of Chemistry and Biochemistry, University of Mississippi, University, Mississippi 38677, USA)
16:20	Mon-EM3-04 **Novel methods for investigating the conditions that promote formation of pathogenic biofilms** John Frostad john.frostad@ubc.ca (Chemical Engineering University of British Columbia | Food Science University of British Columbia)
15:20 - 16:40	**Session: Wetting and Adhesion** Organizer/s: Shu Yang, Dongjin Seo Chair/s: Dongjin Seo
15:20	Mon-GM3-01

	Effect of surface wettability on the interfacial adhesion of thermosetting polymer composites Ye Wang Ye_Wang1@student.uml.edu (Department of Plastics Engineering, University of Massachusetts Lowell, Lowell, MA 01854)
15:40	Mon-GM3-02 **Contact angle hysteresis and contact-line shape of a pendant droplet on a PDMS-coated anisotropically curved surface** Mingzhu Cui mingzhucui@umass.edu (University of Massachusetts Amherst)
16:00	Mon-GM3-03 **Drainage from a Fluid-Handling Component with Multiple Orifices due to Inclination or Rotation** Chuck Extrand chuck.extrand@gmail.com (AceMarga LLC)
16:20	Mon-GM3-04 **Evaporative assembly of non-buckling shells on a superhydrophobic substrate** Ahmed Al Harraq aahme22@lsu.edu (Cain Department of Chemical Engineering Louisiana State University 3307 Patrick F. Taylor Hall Baton Rouge, LA 70803)
15:20 - 16:40	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Lydia Kisley
15:20	Mon-KM3-01 **Biomechanical measurements of a pressurized blood vessel-on-a-chip** Paul Salipante paul.salipante@nist.gov (Materials Science and Engineering Division, National Institute of Standards and Technology, Gaithersburg, MD 20899)
15:40	Mon-KM3-02 **Dilatational Mechanics Evolution of Lung Surfactant Film throughout Acute Respiratory Distress Syndrome Progression Leads to Lung Collapse** Clara Ciutara ciuta004@umn.edu (Chemical Engineering and Materials Science, University of Minnesota, Twin Cities)
16:00	Mon-KM3-03 **Vesicle shape dynamics under steady and oscillatory extensional flows – insights from simulations and experiments** Vivek Narsimhan vnarsim@purdue.edu (Davidson School of Chemical Engineering Purdue University West Lafayette, IN, 47907)

16:20	Mon-KM3-04 **The Role of Phospholipid Headgroup in the Formation and Interfacial Rheology of Binary Phospholipid-Cholesterol Monolayers** Andrew White an.ry.white@gmail.com (Department of Chemical and Environmental Engineering, University of California, Riverside, CA 92507)
15:20 - 16:40	**Session: Plasmonics** Organizer/s: Matthew Sheldon, Stephan Link Chair/s: Stephan Link
15:20	Mon-MM3-01 **Driving energetically unfavorable dehydrogenation dynamics with plasmonics** Jennifer Dionne jdionne@stanford.edu (Stanford University)
15:45	Mon-MM3-02 **Spectroscopic signatures of plasmon-induced charge separation in gold nanorods on metal-oxide semiconductors** Stephen Lee sl139@rice.edu (Department of Chemistry, Rice University)
16:00	Mon-MM3-03 **Analysis of the optical response of periodic arrays of nanostructures** Alejandro Manjavacas manjavacas@unm.edu (Department of Physics and Astronomy, University of New Mexico, US | Instituto de Óptica (IO-CSIC), Consejo Superior de Investigaciones Científicas, Spain)
16:25	Mon-MM3-04 **Plasmonic Coupling in Self-Assembled Nanocrystal Gels and Superlattices** Zachary Sherman zachary.sherman@austin.utexas.edu (McKetta Department of Chemical Engineering, University of Texas at Austin, Austin, TX)
15:20 - 16:40	**Session: Fundamental/General Aspects of Colloids and Interfaces** Organizer/s: Ning Wu, Vivek Narsimhan Chair/s: Peter Beltramo
15:20	Mon-QM3-01 **Phase Morphology of Polymer Composites and Blends using Neutron and X-Ray Scattering** Caitlyn Wolf caitlyn.wolf@nist.gov (National Institute of Standards and Technology, Center for Neutron Research, Gaithersburg, MD | University of Washington, Department of Chemical Engineering, Seattle, WA)
15:40	Mon-QM3-02

	3D Printing and Microbial Degradation of Lignin-Zein Composite Jin Gyun Lee jlee229@lsu.edu (Cain Department of Chemical Engineering, Louisiana State University)
16:00	Mon-QM3-03 **Microtensiometer Constant Surface Area Surfactant Adsorption** Steven Iasella iasel001@umn.edu (University of Minnesota, Department of Chemical Engineering and Materials Science)
17:00 - 19:00	**Session: Exhibitor Presentations** Organizer/s: Ramanathan Nagarajan
	Mon-TM-01 **How can we help you to advance your colloid and surface science?** Dehua Yang dyang@ebatco.com (Exponential Business and Technologies Company (EBATCO))
	Mon-TM-02 **Nanoscience Instruments: provider of surface and interfacial analysis equipment** MATTHEW DIXON mdixon@nanoscience.com (Nanoscience Instruments)
	Mon-TM-03 **Droplet Lab: Smartphone-based Tensiometry** Abhimanyu Bhandankar abhandankar@dropletlab.com (|)
Tuesday, 15 June	
09:00 - 11:00	**Session: Langmuir Graduate Student Oral Presentation Award Symposium** Organizer/s: Ramanathan Nagarajan Chair/s: Lisa Biswal
09:00	Tue-LGS2-01 **Probing contact microstructure in dense colloidal suspensions** Shravan Pradeep spradee@ncsu.edu (Chemical and Biomolecular Engineering, North Carolina State University, Raleigh, NC - 27695)
09:20	Tue-LGS2-02 **Dynamic control of active droplet propulsion in a nematic environment by an electric field.** Mojtaba Rajabi mrajabi@kent.edu (Advanced Materials and Liquid Crystal Institute, Kent State University, Kent, OH 44242, USA | Department of Physics, Kent State University, Kent, OH 44242, USA)

09:40	Tue-LGS2-03 **Mechanochemistry of Inorganic Nanostructures** Sarah Rehn smr14@rice.edu (Chemistry, Rice University)
10:00	Tue-LGS2-04 **Dynamics of polymers under extreme nanoconfinement of disordered nanoparticle packings** R Bharath Venkatesh rbharath@seas.upenn.edu (Chemical and Biomolecular Engineering, The University of Pennsylvania, Philadelphia, Pennsylvania, United States)
10:20	Tue-LGS2-05 **Mechanisms of Transport Enhancement for Self-Propelled Nanoswimmers in a Porous Matrix** Haichao Wu hcwusdu@gmail.com (University of Colorado Boulder, Department of Chemical and Biological Engineering)
09:00 - 11:00	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Samanvaya Srivastava
09:00	Tue-AT1-01 **Directed Self-Assembly of Polarizable Nanoparticles (Keynote Lecture)** James Swan jswan@mit.edu
09:40	Tue-AT1-02 **Liquid Crystalline Coacervates Composed of Chromonic Mesogens and Polyelectrolytes** Elizabeth Adeogun knayani@uark.edu (Ralph E. Martin Department of Chemical Engineering, University of Arkansas)
10:00	Tue-AT1-03 **Hybrid Hydrogels Comprising Interpenetrating Electrostatic and Covalent Networks** Defu Li lidefu520@ucla.edu (Department of Chemical and Biomolecular Engineering, University of California, Los Angeles, Los Angeles, CA 90095)
10:20	Tue-AT1-04 **Molecular Encapsulation and Molecular Exchange in Polyelectrolyte Complex Micelles** Sachit Shah spshah6@knights.ucf.edu (Department of Materials Science and Engineering, University of Central Florida, Orlando, FL 32816, USA)
10:40	Tue-AT1-05

	Field-driven reversible alignment and gelation of magneto-responsive soft anisotropic microbeads Natasha Castellanos nimorale@ncsu.edu (Department of Chemical and Biomolecular Engineering, North Carolina State University)
09:00 - 11:00	**Session: Emulsions, Bubbles, Foams** Organizer/s: Daniel Miller, Karthik Nayani, Cari Dutcher Chair/s: Cari Dutcher
09:00	Tue-BT1-01 **Foams with Enhanced Rheology for Stopping Bleeding** Hema Choudhary hema994@terpmail.umd.edu (Chemical and Biomolecular Engineering, University of Maryland College Park)
09:20	Tue-BT1-02 **Drainage via Stratification in Foam Films Made with Polymer-surfactant Complexes** Chenxian Xu cxu41@uic.edu (Department of Chemical Engineering, UIC)
09:40	Tue-BT1-03 **Particle-coated bubbles driven by ultrasound for high-frequency interfacial rheology** Saikat Saha s.saha@tudelft.nl (Department of Chemical Engineering, Delft University of Technology, 2629 HZ Delft, The Netherlands)
10:00	Tue-BT1-04 **Foaming and De-foaming Phenomena of Bi-phase Makeup Removers** Zhi Li zhi.li@rd.loreal.com (L'Oréal Research and Innovation, Clark, NJ 07066)
10:20	Tue-BT1-05 **Foam and emulsion stability and its relation with surface rheology (Keynote Lecture)** Dominique Langevin dominique.langevin@u-psud.fr (Laboratoire de Physique des Solides, CNRS, Université Paris Saclay)
09:00 - 11:00	**Session: Active & Responsive Colloidal Matter** Organizer/s: Bhuvnesh Bharti, Carlos Silvera Batista Chair/s: Carlos Silvera Batista
09:00	Tue-CT1-01 **Fabrication and Active Propulsion of Patchy Ellipsoidal Microparticles in Electric Field** Jin Gyun Lee jlee229@lsu.edu

	(Cain Department of Chemical Engineering, Louisiana State University)
09:20	Tue-CT1-02 **Nonlinear Dynamics of Semiflexible Colloidal Filaments in Eccentric Time-Varying Magnetic Fields** Aldo Stefano Spatafora Salazar astefanoss@rice.edu (Department of Chemical and Biomolecular Engineering Rice University)
09:40	Tue-CT1-03 **Nonequillibrium shape fluctuations and motility of a droplet enclosing active particles** Petia Vlahovska petia.vlahovska@northwestern.edu (Northwestern University)
10:00	Tue-CT1-04 **Mesoporous, Moisture-Absorbent, Temperature-Controlled Hydrogels For Atmospheric Water Harvesting** Galen Mandes gmandes@princeton.edu (Department of Chemical and Biological Engineering, Princeton University | Department of Chemistry and Life Science, United States Military Academy)
10:20	Tue-CT1-05 **Synthesis of stimuli-responsive skins around hydrogels to regulate solute release** Sai Nikhil Subraveti nikhil15@terpmail.umd.edu (University of Maryland - College Park)
10:40	Tue-CT1-06 **Manipulating Surface-Modified Cs:WO_3 Nanocrystals in Liquid Crystals for solar transmission control** Capucine Cleret de Langavant capucine.cleretdelangavant@saint-gobain.com (Laboratoire de Physique de la Matière Condensée, UMR 7643, CNRS/ École Polytechnique, Institut Polytechnique de Paris, Palaiseau, France | Surface du Verre et Interface , UMR 125, CNRS/Saint-Gobain, Aubervilliers, France)
09:00 - 11:00	**Session: Rheology & Complex Fluids** Organizer/s: Jeffrey Richards, Amanda Marciel Chair/s: Jeffrey Richards
09:00	Tue-DT1-01 **Microstructure and rheology of shear-thickening colloidal suspensions with varying interparticle friction: comparison of experiment with theory and simulation models, and applications to human exploration of space (Keynote Lecture)** Norman Wagner wagnernj@udel.edu (University of Delaware, Dept of Chemical and Biomolecular Engineering)

09:40	Tue-DT1-02 **Tunable yield stresses in suspensions of porous microcapsules *via* internal additives** Ryan Poling-Skutvik ryanps@uri.edu (University of Rhode Island Department of Chemical Engineering)
10:00	Tue-DT1-03 **Droplet-based microfluidic tool to quantify viscosity of concentrating protein solutions** Deyu Yang deyuy@andrew.cmu.edu (Carnegie Mellon University)
10:20	Tue-DT1-04 **The hydrodynamic stresslet: representing non-equilibrium motion in a model biological cell.** Emma Gonzalez emmagg@stanford.edu (Stanford University)
10:40	Tue-DT1-05 **Dilatational rheological behavior of lysolipid (lung surfactant Inhibitor) in an in situ lung alveoli** Sourav Barman sbarman@umn.edu (University of Minnesota-Twin Cities)
09:00 - 11:00	**Session: Advanced Experimental Methods in Colloid and Interface Science** Organizer/s: Qian Chen, Muzhou Wang Chair/s: Qian Chen
09:00	Tue-ET1-01 **Tunable chiral optical properties in semiconductor nanocrystals (Keynote Lecture)** Vivian Ferry veferry@umn.edu (Chemical Engineering & Materials Science, University of Minnesota)
09:40	Tue-ET1-02 **Dial-a-material: precise manufacturing technology using early growth for plasmonic materials up to 100 nm** Bruno Pinho bp421@cam.ac.uk (Department of Chemical Engineering and Biotechnology, University of Cambridge, Cambridge, UK)
10:00	Tue-ET1-03 **New methods to map the interfacial mobility and distribution of amphiphiles at fluid interfaces based on liquid crystals** Sangchul Roh sr974@cornell.edu (Smith School of Chemical and Biomolecular Engineering, Cornell University)

10:20	Tue-ET1-04 **Monitoring Halide Exchange and Perovskite Nanocrystals using Diffusion Ordered NMR Spectroscopy** Mathew Maye mmmaye@syr.edu (Department of Chemistry, Syracuse University)
10:40	Tue-ET1-05 **Does microstructure and packing of polyanions in polelectrolyte complex coacervates depend on the conformation in the parent solution?** Ulrich Scheler scheler@ipfdd.de (Leibniz-Institut für Polymerforschung Dresden e.V.)
09:00 - 11:00	**Session: Wetting and Adhesion** Organizer/s: Shu Yang, Dongjin Seo Chair/s: Shu Yang
09:00	Tue-GT1-01 **Nature-inspired structured and functional surfaces for water-energy nexus (Keynote Lecture)** Zuankai Wang zuanwang@cityu.edu.hk
09:40	Tue-GT1-02 **Adhesion Strength and Fatigue Behavior of Single-Lap Joints Bonded with Epoxy Nanocomposite Adhesives** Atsushi Takahara takahara@cstf.kyushu-u.ac.jp (Kyushu University)
10:00	Tue-GT1-03 **Robust oil repellent surfaces by using microscale hyperbolic structures** Hyunsik Yoon hsyoon@seoultech.ac.kr (Seoul National University of Science & Technology)
10:20	Tue-GT1-04 **Effect of Polymer Concentration on Air Entrainment Dynamics under Droplet Impact** Ziwen He ziwen_he1@baylor.edu (Baylor University)
10:40	Tue-GT1-05 **Condensation on the Old Man Cactus spine: droplets distant coalescence** Nicolò Giuseppe Di Novo nicolo.dinovo@unitn.it (Laboratory of Bio-Inspired, Bionic, Nano, Meta, Materials & Mechanics, Department of Civil, Environmental and Mechanical Engineering, University of Trento, Via Mesiano, 77, 38123 Trento, Italy | Micro Nano Facility, FBK-Sensors and Devices, Trento, Italy)
09:00 - 11:00	**Session: Surface Science and Catalysis**

	Organizer/s: Danmeng Shuai, Paul DeSario Chair/s: Paul DeSario
09:00	Session starts at 9:20 AM ET
09:20	Tue-LT1-01 **Catalyst design rooted in inorganic materials properties** Zachary Ulissi zulissi@andrew.cmu.edu (Department of Chemical Engineering, Carnegie Mellon University)
09:40	Tue-LT1-02 **Single-Atom Catalysis for Oxidizing Contaminants of Emerging Concern via High-Valent Fe Species** Zhe Zhou zhou0530@gwu.edu (The George Washington University)
10:00	Tue-LT1-03 **Dilemma of activity and stability: Intrinsic photoreactivity promotes 2D nanomaterial decomposition under radical attack** Mengqiao Li lmq123@gwu.edu (Department of Civil and Environmental Engineering, The George Washington University)
10:20	Tue-LT1-04 **Toward Single Atom Catalysis for Environmental Application (Keynote Lecture)** Jaehong Kim jaehong.kim@yale.edu (Yale University)
09:00 - 11:10	**Session: Plasmonics** Organizer/s: Matthew Sheldon, Stephan Link Chair/s: Matthew Sheldon
09:00	Tue-MT1-01 **From photons to chemical bonds (Keynote Lecture)** Prashant Jain jain@illinois.edu (Department of Chemistry, Materials Research Laboratory, Beckman Institute for Advanced Science and Technology, and Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA.)
09:40	Tue-MT1-02 **Shape and Plasmonic Properties of Magnesium Nanoparticles** Emilie Ringe er407@cam.ac.uk (Department of Materials Science and Metallurgy, University of Cambridge, 27 Charles Babbage Road, Cambridge, United Kingdom, CB3 0FS | Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge, United Kingdom, CB2 3EQ)

10:05	Tue-MT1-03 **Manipulating Surface-modified Cs:WO_3 Nanocrystals in Liquid Crystal for Solar Transmission Control** Capucine Cleret de Langavant capucine.cleretdelangavant@saint-gobain.com (Laboratoire de Physique de la Matière Condensée, UMR 7643, CNRS/École Polytechnique, Institut Polytechnique de Paris, Palaiseau, France | Surface du Verre et Interface , UMR 125, CNRS/Saint-Gobain, Aubervilliers, France)
10:20	Tue-MT1-04 **``hot'' photo-luminescence from metals - quantitative theory and application to anti-Stokes thermometry** Yonatan Sivan sivanyon@bgu.ac.il (School of Electrical and Computer Engineering, Ben-Gurion University)
10:45	Tue-MT1-05 **Plasmonic Mapping for Sensor Design** Amanda Haes amanda-haes@uiowa.edu (University of Iowa)
09:00 - 11:00	**Session: Chemical Interactions Between Colloids and at Interfaces** Organizer/s: Robert Macfarlane, Matthew Jones Chair/s: Matthew Jones
09:00	Tue-OT1-01 **Designing Colloidal Quantum Dot-Molecule Interfaces for Photocatalysis (Keynote Lecture)** Emily Weiss e-weiss@northwestern.edu (Department of Chemistry, Northwestern University | Center for Bio-Inspired Energy Science, Simpson-Querrey Institute, Northwestern University)
09:40	Tue-OT1-02 **Optical Processing of DNA-Programmed Nanoparticle Superlattices** Leonardo Zornberg lzornber@mit.edu (Department of Materials Science and Engineering, MIT)
10:00	Tue-OT1-03 **Developing colloidal interaction potentials by integrating equilibrium and non-equilibrium measurements** Scott Fenton scottmfenton@ucsb.edu (University of California Santa Barbara)
10:20	Tue-OT1-04 **Single-Particle Mapping of an O_h to T_d Symmetry Reduction Growth Mechanism in Metal Nanoparticle Synthesis** Muhua Sun ms166@rice.edu (Department of Chemistry, Rice University)

09:00 - 11:00	**Session: Nanomaterials & Advanced Manufacturing** Organizer/s: Amy Peterson, Esteban Urena-Benavides Chair/s: Amy Peterson
09:00	Tue-PT1-01 **Combinatorial Synthesis of Polyelemental Nanoparticles (LaMer Keynote Lecture)** Pengcheng Chen pcchen@berkeley.edu (Kavli Energy Nanoscience Institute University of California, Berkeley)
09:40	Tue-PT1-02 **Application of machine learning to understand and predict the size of quantum dots in the hot injection syntheses** Fabio Baum fabiobaum.research@gmail.com (Department of Chemical Engineering, University of Washington)
10:00	Tue-PT1-03 **Photoreduction and chemical reduction of magnetic bimetallic nanoparticles** Francis Acquaye fyacquaye@crimson.ua.edu (The University of Alabama)
10:20	Tue-PT1-04 **Particle motion artifacts in equilibrium magnetization measurements of large iron oxide nanoparticles** Shehaab Savliwala s.savliwala@ufl.edu (Department of Chemical Engineering, University of Florida)
10:40	Tue-PT1-05 **Optimizing superparamagnetic iron oxide nanoparticle synthesis and PEG coating for magnetic particle imaging performance and long blood circulation half-life** Sitong Liu liusitong@ufl.edu (Department of Chemical Engineering, University of Florida, Gainesville, FL, 32611)
09:00 - 11:00	**Session: Fundamental/General Aspects of Colloids and Interfaces** Organizer/s: Ning Wu, Vivek Narsimhan Chair/s: Ning Wu
09:00	Tue-QT1-01 **Factory-on-a-chip: scaling-up droplet microfluidics for large-scale materials synthesis (Keynote Lecture)** Daeyeon Lee daeyeon@seas.upenn.edu (Department of Chemical and Biomolecular Engineering, University of Pennsylvania, Philadelphia, PA 19104)
09:40	Tue-QT1-02 **Axisymmetric Drop Shape Analysis of Compound Droplets**

	Guangle Li guangle@hawaii.edu (Department of Mechanical Engineering, University of Hawaii at Manoa)
10:00	Tue-QT1-03 **Osmosis-induced reversible color switching of pigmented photonic capsules** Zhe Gong zhegong@seas.upenn.edu (Department of Chemical and Biomolecular Engineering, University of Pennsylvania)
10:20	Tue-QT1-04 **Multicomponent Diffusion of Interacting, Nonionic Micelles with Hydrophobic Solutes** Nathan Alexander npalexander@ucdavis.edu (Department of Chemical Engineering, University of California at Davis)
10:40	Tue-QT1-05 **Synergistic Marangoni Spreading Driven by Surface Gradients of Binary Catanionic Surfactant Mixtures** Tsung-Lin Hsieh tsunglih@andrew.cmu.edu (Center for Complex Fluids Engineering, Carnegie Mellon University | Department of Chemical Engineering, Carnegie Mellon University)
11:20 - 12:10	**Session: 2020 Unilever Award Lecture** Organizer/s: Ramanathan Nagarajan Chair/s: Joseph Carnali, Ponisseril Somasundaran
11:20	Introduction of 2020 Unilevar Award Recipient by Ponisseril Somasundaran and Joseh Carnali, Unilever Committee Chairs
11:25	Tue-ST1-01 **Life in a Tight Spot: How Bacteria Swim, Disperse, and Grow in Complex Spaces** Sujit Datta ssdatta@princeton.edu (Chemical and Biological Engineering, Princeton University)
12:40 - 13:30	**Session: 2021 Unilever Award Lecture** Organizer/s: Ramanathan Nagarajan Chair/s: Joseph Carnali, Ponisseril Somasundaran
12:40	Introduction of 2021 Unilevar Award Recipient by Ponisseril Somasundaran and Joseh Carnali, Unilever Committee Chairs
12:45	Tue-ST2-01 **Soft friction in colloidal and polymeric materials** Lilian Hsiao lilian_hsiao@ncsu.edu (North Carolina State University)
13:40 - 15:00	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Samanvaya Srivastava

13:40	Tue-AT2-01 **Dynamic Magnetochromatic Response of Concentrated Suspensions of Janus Particles** James Gilchrist gilchrist@lehigh.edu (Department of Chemical and Biomolecular Engineering, Lehigh University)
14:00	Tue-AT2-02 **Assembly of magnetic microspheres under combined electric and magnetic fields** Md Ashraful Haque mhaque@mines.edu (Colorado School of Mines)
14:20	Tue-AT2-03 **Magnetic assembly of micro-satellites on Janus colloids** Ahmed Al Harraq aahme22@lsu.edu (Cain Department of Chemical Engineering, Louisiana State University, Baton Rouge 3307 Patrick F. Taylor Hall Baton Rouge, LA 70803)
14:40	Tue-AT2-04 **Dynamic colloidal clusters in magnetic fields** Bhuvnesh Bharti bbharti@lsu.edu (Cain Department of Chemical Engineering, Louisiana State University, Baton Rouge, LA 70803)
13:40 - 15:00	**Session: Emulsions, Bubbles, Foams** Organizer/s: Daniel Miller, Karthik Nayani, Cari Dutcher Chair/s: Daniel Miller
13:40	Tue-BT2-01 **Impact of interfacial viscosity on the stability of a translating droplet** Natasha Singh singh567@purdue.edu (Purdue University)
14:00	Tue-BT2-02 **Gas transport across nanometer thin films between microbubbles** Raymond Dagastine rrd@unimelb.edu.au (Department of Chemical Engineering, University of Melbourne, Parkville 3010, Australia)
14:20	Tue-BT2-03 **Influences of Surfactant and Salt on Micellar Assemblies and Foam Film Stability** Shang Gao gshang@g.ucla.edu (Chemical & Biomolecular Engineering Department, University of California, Los Angeles)
14:40	Tue-BT2-04

	Interconnectivity of Polymerized High Internal Phase Emulsions (PolyHIPEs): Effect of Interdroplet Interactions Muchu Zhou muchu@nmsu.edu (Department of Chemical and Materials Engineering, New Mexico State University, Las Cruces, NM 88003)
13:40 - 15:00	**Session: Active & Responsive Colloidal Matter** Organizer/s: Bhuvnesh Bharti, Carlos Silvera Batista Chair/s: Bhuvnesh Bharti
13:40	Tue-CT2-01 **Self-locomotion of active droplets enabled by nematic environment (Keynote Lecture)** Oleg Lavrentovich olavrent@kent.edu (Advanced Materials and Liquid Crystal Institute, Department of Physics, Kent State University)
14:20	Tue-CT2-02 **Assembly and propulsion of linear colloidal chains under combined electric and magnetic fields** Md Ashraful Haque mhaque@mines.edu (Colorado School of Mines)
14:40	Tue-CT2-03 **Quincke oscillations of colloids at planar electrodes** Zhengyan Zhang zz2480@columbia.edu (Department of Chemical Engineering, Columbia University, New York, NY 10025, USA)
13:40 - 15:00	**Session: Surface and Interfacial Forces** Organizer/s: Younjin Min, Ray Dagastine, Mustafa Akbulut Chair/s: Mustafa Akbulut, Younjin Min
13:40	Tue-HT2-01 **Impact of processing and multicomponent adsorption on fluid-fluid interfaces and interfacial forces (Keynote Lecture)** Lynn Walker lwalker@andrew.cmu.edu (Department of Chemical Engineering, Carnegie Mellon University)
14:20	Tue-HT2-02 **Characterizing the Hydrophobic Interactions of Fusion Peptides of Coronaviruses using Single-Molecule Force Measurements** Cindy Qiu xq75@cornell.edu (Robert Frederick Smith School of Chemical and Biomolecular Engineering, Cornell University, Ithaca, NY 14853)
14:40	Tue-HT2-03

	Nanomechanical measurements of microcapsules and microparticles Joseph Berry berryj@unimelb.edu.au (Department of Chemical Engineering, University of Melbourne, Parkville 3010, Australia)
13:40 - 15:00	**Session: Colloids and Interfaces in Environmental Applications** Organizer/s: Xing Xie, Onur Apul, Chad Vecitis, Navid Saleh Chair/s: Chad Vecitis
13:40	Tue-JT2-01 **Leveraging Colloid Properties for Efficient and Targeted Foliar-applied Agrochemicals (Keynote Lecture)** Gregory Lowry glowry@cmu.edu (| |)
14:20	Tue-JT2-02 **Liquid sheet breakup and droplet evolution in agricultural sprays** Iaroslav Makhnenko makhn003@umn.edu (University of Minnesota, Department of Mechanical Engineering)
14:40	Tue-JT2-03 **Under pressure: Hydrogel swelling in a granular medium** Jean-Francois Louf jeanfrancois.louf@gmail.com (Princeton University)
13:40 - 15:00	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Sarah Perry
13:40	Tue-KT2-01 **Bi-disperse multiple particle tracking microrheology measures length scale dependent re-engineering of polymer-peptide hydrogels by human mesenchymal stem cells** John McGlynn jam217@lehigh.edu (Department of Chemical and Biomolecular Engineering, Lehigh University, Iacocca Hall, 111 Research Drive, Bethlehem PA 18015)
14:00	Tue-KT2-02 **Designed Interfaces Between Proteins and Inorganic Crystals for Templated Assembly and Co-Assembly** Sakshi Yadav sakshi.yadav@pnnl.gov (Pacific Northwest National Lab)
14:20	Tue-KT2-03 **Fluorescent Quantum Defect Based Nanosensors for Biomedical Applications (LaMer Keynote Lecture)** Mijin Kim kimm7@mskcc.org

	(Molecular Pharmacology Program, Memorial Sloan Kettering Cancer Center, New York, NY 10065, United States | Department of Chemistry & Biochemistry, University of Maryland, College Park, MD 20742, United States)
13:40 - 15:00	**Session: Surface Science and Catalysis** Organizer/s: Danmeng Shuai, Paul DeSario Chair/s: Paul DeSario
13:40	Tue-LT2-01 **What makes for a well-defined or 'single-site' oxidation catalyst? (Keynote Lecture)** Justin Notestein j-notestein@northwestern.edu (Chemical and Biological Engineering Center for Catalysis and Surface Science Northwestern University)
14:20	Tue-LT2-02 **A Functional Model of Single Cobalt Sites on C-doped Carbon Nitride for Solar CO2 Reduction** Gonghu Li gonghu.li@unh.edu (University of New Hampshire)
14:40	Tue-LT2-03 **Single Pt atom catalyst synthesis and its application for selective propane dehydrogenation to propylene** Sufeng Cao sufeng.cao@aramcoamericas.com (Aramco Services Company: Aramco Research Center—Boston, MA 02139, USA. | Department of Chemical and Biological Engineering, Tufts University, Medford, MA 02155, USA. | Department of Chemistry, Merkert Chemistry Center, Boston College, Chestnut Hill, MA 02467, USA.)
13:40 - 15:00	**Session: Plasmonics** Organizer/s: Matthew Sheldon, Stephan Link Chair/s: Matthew Sheldon
13:40	Tue-MT2-01 **Predicting and Controlling Correlated Light-Matter Interactions at the Atomic-Scale** Prineha Narang prineha@seas.harvard.edu
14:05	Tue-MT2-02 **Dielectric Resonance-Enhanced Photocatalysis on High Refractive Index Semiconductor Nanostructures** Sundaram Bhardwaj Ramakrishnan suramak@okstate.edu (School of Chemical Engineering, Oklahoma State University)
14:20	Tue-MT2-03 **Plasmonics or Dielectrics? Light with a Phase Transition**

	Gururaj Naik guru@rice.edu (Electrical & Computer Engineering, Rice University)
14:45	Tue-MT2-04 **Near- and Far-Field Response of Thin Metallic Nanodisks** Lauren Zundel lzundel@unm.edu (Department of Physics and Astronomy, University of New Mexico, US)
13:40 - 15:00	**Session: Interfacing Biology with Materials** Organizer/s: Ariel Furst, Yi Zhang Chair/s: Ariel Furst, Yi Zhang
13:40	Keynote Lecture by Anne Andrews
14:20	Tue-NT2-01 **Complex Colloidal Micro-transducers for Bacteria Activity Sensing** Hari Vijayamohanan vijayh@mit.edu (Department of Chemistry, Massachusetts Institute of Technology)
14:40	Tue-NT2-02 **Studies of hierarchical nanoporous gold as a promising nanomaterial for biosensor applications** Palak Sondhi ps2f7@mail.umsl.edu (Department of Chemistry and Biochemistry, University of Missouri, Saint Louis (UMSL))
13:40 - 15:00	**Session: Chemical Interactions Between Colloids and at Interfaces** Organizer/s: Robert Macfarlane, Matthew Jones Chair/s: Robert Macfarlane
13:40	Tue-OT2-01 **Prediction of Structure in Binary Superlattices with Perovskite Nanocubes (Keynote Lecture)** Alex Travesset trvsst@ameslab.gov (Department of Physics and Astronomy, Iowa State University | Ames Lab)
14:20	Tue-OT2-02 **Nanoparticle Assembly in High Polymer Concentration Solutions Increases Superlattice Stability** Margaret Lee mlee22@mit.edu (Massachusetts Institute of Technology)
14:40	Tue-OT2-03 **On the Thermodynamic Stability of Binary Superlattices of Polystyrene Functionalized Nanocrystals** Jianshe Xia xiajs6075@iccas.ac.cn

	(Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences | University of Chinese Academy of Sciences)
13:40 - 15:00	**Session: Nanomaterials & Advanced Manufacturing** Organizer/s: Amy Peterson, Esteban Urena-Benavides Chair/s: Esteban Urena-Benavides
13:40	Tue-PT2-01 **An Easy-to-use Method for Quantitatively Determining the Hydrophobicity of Nanoparticles** Guangle Li guangle@hawaii.edu (Department of Mechanical Engineering, University of Hawaii at Manoa)
14:00	Tue-PT2-02 **Neutrally Charged Nanosilver Antimicrobial Effects: A Surface Thermodynamic Perspective** Yudi Wu yudi1.wu@famu.edu (Department of Civil and Environmental Engineering, FAMU-FSU College of Engineering, 2525 Pottsdamer Street, Tallahassee, Florida, 32310, USA.)
14:20	Tue-PT2-03 **A new class of biodegradable, tough, and clear polysaccharide films reinforced with chitosan dendricolloids** Yosra Kotb ymkotb@ncsu.edu (Department of Chemical and Biomolecular Engineering, North Carolina State University, Raleigh, NC, USA)
14:40	Tue-PT2-04 **Multidimensional free energy landscapes for the binding of functionalized nanoparticles to lipid bilayers** Jonathan Sheavly sheavly@wisc.edu (University of Wisconsin-Madison)
13:40 - 15:00	**Session: Fundamental/General Aspects of Colloids and Interfaces** Organizer/s: Ning Wu, Vivek Narsimhan
13:40	Tue-QT2-01 **Analysis of sodium dodecyl sulfate contamination via dilational rheology measurements** Elton L. Correia correiaelton@ou.edu (Chemical, Biological and Materials Engineering, The University of Oklahoma)
14:00	Tue-QT2-02 **Thermoreversible gels composed of hollow adhesive silica nanorods with short-range attractions** Haesoo Lee leeh@udel.edu

	(Center for Neutron Science, Department of Chemical and Biomolecular Engineering, University of Delaware, Newark, Delaware 19716, United States)
14:20	Tue-QT2-03 **Exploring Nonadditive Ion Effects on Protein Stability in Aqueous Solutions** Pho Bui ptb2@psu.edu (Department of Chemistry, The Pennsylvania State University, University Park, PA 16802.)
14:40	Tue-QT2-04 **Specific effects of ionic liquid constituents on the stability of particle dispersions** Istvan Szilagyi szistvan@chem.u-szeged.hu (MTA-SZTE Lendület Biocolloids Research Group, Department of Physical Chemistry and Materials Science, University of Szeged, Hungary)
15:20 - 16:40	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Jaime Juarez
15:20	Tue-AT3-01 **Networks of Anisotropic, Magnetically-Polarized Colloidal Particles Reversibly Reconfigure under the Influence of an External Magnetic Field** Matthew Dorsey madorse2@ncsu.edu (Department of Chemical and Biomolecular Engineering, North Carolina State University)
15:40	Tue-AT3-02 **Anisotropic Colloidal Assembly in AC Electric Fields** Rachel S. Hendley rachel.stein.1@gmail.com (Chemical & Biomolecular Engineering, Johns Hopkins University)
16:00	Tue-AT3-03 **pH mediated colloidal aggregation to separation transitions in low frequency oscillatory electric fields** Taylor Woehl tjwoehl@umd.edu (Department of Chemical and Biomolecular Engineering, University of Maryland, College Park)
16:20	Tue-AT3-04 **Endoskeletal Droplets under Standing Surface Acoustic Waves: Effects of Acoustic Radiation Forces** Gazendra Shakya gazendra.shakya@colorado.edu (Department of Mechanical Engineering, University of Colorado at Boulder, CO, USA)

15:20 - 16:40	**Session: Emulsions, Bubbles, Foams** Organizer/s: Daniel Miller, Karthik Nayani, Cari Dutcher Chair/s: Daniel Miller
15:20	Tue-BT3-01 **Fluid-like interfacial dynamics of sodium dodecyl sulphate stabilized hexadecane nanodrops** Reghan J. Hill reghan.hill@mcgill.ca (Department of Chemical Engineering, McGill University)
15:40	Tue-BT3-02 **The impact of viscous stress and surfactant concentration on the micro-scale droplet coalescence** Yun Chen chen5751@umn.edu (University of Minnesota)
16:00	Tue-BT3-03 **Peeling back the layers: Understanding how the surface structure and stability of oil-in-water nanoemulsions are impacted by interfacial polymer layering** Emma Tran ntran@uoregon.edu (University of Oregon)
16:20	Tue-BT3-04 **Comb-polyelectrolyte Stabilized Polyelectrolyte Complex Coacervate Emulsions** Shang Gao gshang@g.ucla.edu (Department of Chemical and Biomolecular Engineering, University of California, Los Angeles, Los Angeles, CA 90095)
15:20 - 16:40	**Session: Surface and Interfacial Forces** Organizer/s: Mustafa Akbulut, Younjin Min, Ray Dagastine Chair/s: Mustafa Akbulut, Younjin Min
15:20	Tue-HT3-01 **Growth and Coalescence of Nanoscopic Mesas in Stratifying Micellar Foam Films** Chenxian Xu cxu41@uic.edu (Department of Chemical Engineering, UIC)
15:40	Tue-HT3-02 **Multiscale dynamics of colloidal deposition and erosion in porous media** Navid Bizmark nbizmark@princeton.edu (1Princeton Institute for the Science and Technology of Materials, Princeton University, Princeton, New Jersey 08540, United States of America | 2Department of Chemical and Biological Engineering, Princeton University, Princeton, New Jersey 08540, United States of America)

16:00	Tue-HT3-03 **DLVO energy landscape of a Janus particle with a nonuniform cap** Siddharth Rajupet siddharth.rajupet@case.edu (Case Western Reserve University)
15:20 - 16:40	**Session: Colloids and Interfaces in Environmental Applications** Organizer/s: Xing Xie, Onur Apul, Chad Vecitis, Navid Saleh Chair/s: Onur Apul
15:20	Tue-JT3-01 **Dispersing Crude Oils of Varying Viscosities Using a Food-Grade Dispersant** Futoon Aljirafi faljiraf@umd.edu (Department of Chemical & Biomolecular Engineering, University of Maryland, College Park, Maryland 20742, United States)
15:40	Tue-JT3-02 **Effect of nanoparticle addition on oil spill bioremediation by hydrocarbonoclastic bacterium *A. borkumensis*** Amber Pete apete4@lsu.edu (Cain Department of Chemical Engineering, Louisiana State University, Baton Rouge, LA 70803)
16:00	Tue-JT3-03 **Colloidal Interactions of Microplastics at Interfaces of Liquid Crystals: A Soft Matter Platform for Rapid Characterization of Microplastics** Fiona Mukherjee fm448@cornell.edu (Smith School of Chemical and Biomolecular Engineering, Cornell University, Ithaca, NY)
16:20	Tue-JT3-04 **Soft dendritic colloidal particles as novel environmentally-friendly microcleaners for microplastic remediation** Lucille Verster lverste@ncsu.edu (Department of Chemical and Biomolecular Engineering, North Carolina State University)
15:20 - 16:40	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Lydia Kisley
15:20	Tue-KT3-01 **Foliar applied reactive oxygen species (ROS)-responsive star polymers protect plant photosynthesis under abiotic stress** Yilin Zhang yilinz1@andrew.cmu.edu (Carnegie Mellon University)
15:40	Tue-KT3-02

	Chemotactic smoothing of bacterial populations Tapomoy Bhattacharjee tapomoyb@princeton.edu (Princeton University)
16:00	Tue-KT3-03 **Thermodynamic and Rheological Consequences of Healthy versus Diseased Model Myelin Monolayers and Implications for Demyelination** Andrew White an.ry.white@gmail.com (Department of Chemical and Environmental Engineering, University of California, Riverside, CA 92521)
16:20	Tue-KT3-04 **Biophysical properties of the model tear film lipid layer** Xiaojie Xu xiaojie@hawaii.edu (Department of Mechanical Engineering, University of Hawaii at Manoa)
15:20 - 16:40	**Session: Plasmonics** Organizer/s: Matthew Sheldon, Stephan Link Chair/s: Matthew Sheldon
15:20	Tue-MT3-01 **Plasmonic Metal Oxide Nanocrystals** Delia Milliron milliron@che.utexas.edu (McKetta Department of Chemical Engineering, The University of Texas at Austin)
15:45	Tue-MT3-02 **Plasmonic Substrates for Modified Reaction Chemistry via Vibrational Strong Coupling** Zachary Brawley ztbrawle@tamu.edu (Department of Materials Science and Engineering, Texas A&M University)
16:00	Tue-MT3-03 **Acousto-Plasmonic Coupling: The Raman Energy Density (RED)** Nicolas Large Nicolas.Large@utsa.edu (Department of Physics and Astronomy, The University of Texas at San Antonio)
16:25	Tue-MT3-04 **Plasmon-Coupled Gold Nanoparticles in Stretched Shape-Memory Polymers for Mechanical/Thermal Sensing** Mehedi H. Rizvi mrizvi@ncsu.edu (Department of Materials Science and Engineering, North Carolina State University, Raleigh, North Carolina 27695, United States)
15:20 - 16:40	**Session: Interfacing Biology with Materials** Organizer/s: Ariel Furst, Yi Zhang Chair/s: Ariel Furst, Yi Zhang

15:20	Tue-NT3-01 **Oil-infused Rough Elastomers as Water and Ion Barriers for Implantable Flexible Bioelectronics** Yi Zhang yi.5.zhang@uconn.edu (Department of Biomedical Engineering, Institute of Materials Science, University of Connecticut, Storrs, CT 06269, USA)
15:40	Tue-NT3-02 **Biocompatible cellular coatings to improve the oxygen tolerance of anaerobes** Gang Fan danielgangfan@gmail.com (Massachusetts Institute of Technology)
16:00	Tue-NT3-03 **Flexible and Robust Polymer Gel-Sheet with Ideal Properties for Hemostasis** Hema Choudhary hema994@terpmail.umd.edu (Chemical and Biomolecular Engineering, University of Maryland College Park)
16:20	Tue-NT3-04 **Cuprous oxide/polyurethane surface coating that inactivates the SARS-CoV-2 virus** Saeed Behzadinasab SaeedB@vt.edu (Chemical Engineering, Virginia Tech)
15:20 - 16:40	**Session: Chemical Interactions Between Colloids and at Interfaces** Organizer/s: Robert Macfarlane, Matthew Jones Chair/s: Matthew Jones
15:20	Tue-OT3-01 **The Nanoscale Caterpillar : or how to achieve precise motion and assembly with random sticky feet** Sophie Marbach sophie@marbach.fr (Courant Institute for mathematical sciences, New York University)
15:40	Tue-OT3-02 **Construction of diamond lattice and chiral assembly using gold tetrahedral nanoparticles** SHAN ZHOU SHANZHOU@ILLINOIS.EDU (Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801, United States | Materials Research Laboratory, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801, United States)
16:00	Tue-OT3-03 **Separation of gold single-crystalline and penta-twinned seeds through difference exaggeration overgrowth and purification** Zhihua Cheng zc35@rice.edu

	(Department of Chemistry, Rice University, MS 6000, Main Street, Houston, TX, 77005, USA)
16:20	Tue-OT3-04 **Assembly of Nanoparticle-Polyelectrolyte Membranes at Water-water interfaces** Wilfredo Mendez wmendez@seas.upenn.edu (University of Pennsylvania)
15:20 - 16:40	**Session: Nanomaterials & Advanced Manufacturing** Organizer/s: Amy Peterson, Esteban Urena-Benavides Chair/s: Esteban Urena-Benavides
15:20	Tue-PT3-01 **Fabrication of microstructured electrodes via electroless metal deposition onto polydopamine-coated polystyrene substrates and thermal shrinking** Eduardo González-Martínez gonzae3@mcmaster.ca (Department of Chemistry and Chemical Biology, McMaster University, Hamilton, Canada)
15:40	Tue-PT3-02 **Ultra-high throughput on-chip synthesis of microgels with tunable mechanical properties** Jingyu Wu jingyuwu@seas.upenn.edu (University of Pennsylvania, Department of Chemical and Biomolecular Engineering, Philadelphia, PA 19104)
16:00	Tue-PT3-03 **Complexity and Dynamics in Nanoporous Materials: How to Cut, Insert, Edit, and Animate Their Modules (LaMer Keynote Lecture)** Liang Feng liang.feng@northwestern.edu (Department of Chemistry Northwestern University | Department of Chemistry Texas A&M University)
17:00 - 19:00	**Session: Poster Session 1** Organizer/s: Davita Watkins, Lorena Tribe Chair/s: Davita Watkins, Lorena Tribe The session is intended for Q&A of poster presenters. The session is divided into 40 minute blocks. Within each time block, poster presenters from Posters RT-1 to RT-10; RT-11 to RT-20; and RT-21 to RT-30, respectively will participate in a Q & A session.
	Tue-RT-01 **Data Analysis for Process Control of Highly Monodispersed sub-10 nm ZrO2 Nanocrystals** Ana Morfesis ana.morfesis@malvern.com (Malvern Panalytical 117 Flanders Rd Westborough, MA 01581)

Tue-RT-02

Improvement of montmorillonite surface properties for pollutants adsorption

Facundo Barraqué facundobarraque@cetmic.unlp.edu.ar
(CETMIC, CICPBA, UNLP, CONICET CCT-La Plata, Camino Centenario y 506, B1897ZCA, M. B. Gonnet, Argentina)

Tue-RT-03

BiO/CNT heterostructure with enhanced performance towards electrocatalytic nitrogen reduction reaction

Chaeeun Lim chaeeunlim@postech.ac.kr
(POSTECH(Pohang University of Science and Technology))

Tue-RT-04

Phosphorus Removal from Recirculating Aquaculture System Water

Eliza Costigan eliza.costigan@maine.edu
(Department of Civil & Environmental Engineering, University of Maine, Orono, ME 04473)

Tue-RT-05

Exploring the relationship between temperature activated hydrogen-deuterium exchange and protein stability with SANS

Roisin Donnelly roisind@udel.edu
(Department of Biomedical Engineering University of Delaware | Department of Chemical and Biomolecular Engineering University of Delaware | NIST Center for Neutron Research)

Tue-RT-06

Ultra-thin phthalocyanine layer deposition on TiO_2 nanoparticles to simultaneously enhance charge separation and light absorption in photocatalysts

Hyun Sik Moon hs2moon@postech.ac.kr
(Surface Chemistry Laboratory of Electronic Materials, Department of Chemical Engineering, Pohang University of Science and Technology (POSTECH), Pohang, 790-784, Republic of Korea)

Tue-RT-07

Biomimetic Electrocatalysts of metal-doped NiP for Efficient Water Splitting

DOKYOUNG KIM kdk94@postech.ac.kr
(Department of Chemical Engineering, Pohang University of Science and Technology, cheongam-ro 77, Nam-gu, Pohang, Kyungbuk, Korea)

Tue-RT-08

Enhanced Visible Light Photocatalytic Activity of g-C_3N_4 by Using Heterojunction and Electron Mediator

Selda Odabasi Lee selda@postech.ac.kr

(Department of Chemical Engineering, Pohang University of Science and Technology, Pohang, 790-784, Korea)

Tue-RT-09
Topological Defect Dynamics in Curved Colloidal Crystals
Alexander Yeh ayeh5@jh.edu
(Department of Chemical and Biomolecular Engineering Johns Hopkins University)

Tue-RT-10
Thermochromic Fibers Via Electrospinning and In Situ Phase Separation
James Wimberly wimberlyja@mymail.vcu.edu
(Chemical and Life Science Engineering, Virginia Commonwealth University, Richmond, VA 23284 USA)

Tue-RT-11
Solution-based electroless deposition of gold electrodes on cotton fabrics for wearable heaters and supercapacitors
Sung Min Lee vision_2080@naver.com
(Chung-Ang university)

Tue-RT-12
Mo doping on Ni2P nanowire promote hydrogen evolution reaction in alkaline condition.
Hyogyun Roh rohhg007@postech.ac.kr
(POSTECH)

Tue-RT-13
Highly transparent electrodes based on the web-like networked AgNW film by controlling dewetting phenomena
In Hyeok Oh ink409@naver.com
(Chung-Ang University)

Tue-RT-14
Water droplet-based triboelectric nanogenerator with controllable nanowire structure
soyeon yun syyun98@postech.ac.kr
(POSTECH)

Tue-RT-15
pH-stimuli viscoelastic gel based on betaine-based complexes as viscosifier for hydraulic fracturing fluid
Shuhao Liu liushuhao1993@tamu.edu
(Chemical Engineering, Texas A&M University)

Tue-RT-16
Adsorption of Phenols on Surfactant-Modified Ion Exchange Resins

Mark Anklam manklam@calbaptist.edu
(California Baptist University, Department of Chemical Engineering & Bioengineering)

Tue-RT-17
Emulsion systems for encapsulation of iron for food fortification
Shima Saffarionpour s.saffarionpour@utoronto.ca
(Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, Ontario, Canada)

Tue-RT-18
Extensional Rheology of Colloid-Polymer Mixtures with Depletion Attractions
Diego D. Soetrisno ddsoetrisno@uh.edu
(William A. Brookshire Department of Chemical and Biomolecular Engineering, University of Houston, Houston, TX)

Tue-RT-19
The interesting phenomena of the "Coffee Stain Effect"
Prerona Gogoi preronagogoi@iitg.ac.in
(Department of Chemical Engineering, Indian Institute of Technology Guwahati, Guwahati-781039, India.)

Tue-RT-20
Nanoparticle dynamics in semidilute polymer solutions: rings versus linear chains
Shivraj Bhagwatrao Kotkar skotkar@uh.edu
(William A. Brookshire Department of Chemical and Biomolecular Engineering, University of Houston, Houston, TX 77204)

Tue-RT-21
***In vivo* pharmacokinetics of microbubbles: A direct blood characterization study**
Jose Navarro Jose.navarro@colorado.edu
(Mechanical Engineering Department, University of Colorado, Boulder, CO 80309, USA)

Tue-RT-22
Surface characterization of outer membrane vesicles, naturally-produced colloids, from bacterial biofilms
Matthew Potter m.k.p@aggiemail.usu.edu
(Utah State University, Department of Biological Engineering)

Tue-RT-23
The Kitchen Pot Thickens, Drop by Drop
Karthika Suresh ksuresh@uic.edu
(University of Illinois, Chicago)

	Tue-RT-24 **Structure and Phase Behavior of Polyelectrolyte–Nanoparticle Complexes** Advait Holkar advaitholkar@g.ucla.edu (University of California Los Angeles)
	Tue-RT-25 **Stable Positively Charged Polydimethylsiloxane Micelles with a Highly Hydrophobic Core** Sandrine Lteif sl17d@my.fsu.edu (Department of Chemistry and Biochemistry, The Florida State University, Tallahassee, Florida 32306, USA)
	Tue-RT-26 **Platonic Micelles: Exploration of Micelle Stability at Different Discrete Aggregation Numbers** Ramanathan Nagarajan ramanathan.nagarajan.civ@mail.mil (DEVCOM Soldier Center, Natick, MA)
	Tue-RT-27 **Phase Morphology of Conjugated Polymer Blends with an Elastomeric Tri-block Matrix.** Sage Scheiwiller sschei@uw.edu (University of Washington)
	Tue-RT-28 **Phase Behavior of Colloids with Polymer-Mediated Attractions** Mariah Gallegos mgalle1094@gmail.com (University of Houston, Department of Chemical and Biomolecular Engineering)
	Tue-RT-29 **Sodium Alginate Alters Protein Folding Stability and Structure** Roger Chang rogerc2@illinois.edu (Department of Chemical Engineering at University of Illinois at Urbana-Champaign)
	Tue-RT-30 **Molecular Simulation of Poy(methacrylic acid) and Poly(acrylic acid) Adsorbed at Oil-Water Interface : Effect of Tacticity and Interface Concentration of Polymer** Raviteja Kurapati rtkiitm@gmail.com (Dept. Chemical Engineering, Indian Institute of Technology Madras, Chennai, India - 600036)
Wednesday, 16 June	
09:00 - 11:00	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Samanvaya Srivastava

09:00	Wed-AW1-01 **Acoustophoretic assembly of millimeter-scale Janus fibers** Jaime Juarez jjuarez@iastate.edu (Department of Mechanical Engineering, Iowa State University)
09:20	Wed-AW1-02 **Self-limiting Assembly of Curved Colloidal Particles** Nabila Tanjeem nabila.tanjeem@colorado.edu (University of Colorado Boulder)
09:40	Wed-AW1-03 **Controlling self-assembly in droplet laden colloidal systems using vapor mediation** Omkar Hegde omkarhegde@iisc.ac.in (Department of Mechanical Engineering, Indian Institute of Science, Bangalore)
10:00	Wed-AW1-04 **Thermo-reversible solvent segregation driven gel (SeedGel) with well-controlled structures** Yuyin Xi xiyuyin@uw.edu (Center for Neutron Research, National Institute of Standards and Technology, Gaithersburg, MD, 20899, USA | Department of Chemical & Biomolecular Engineering, University of Delaware, Newark, DE, 19716, USA)
10:20	Wed-AW1-05 **Self-assembled nanoparticle superlattices with size-dependent reconfiguration** Chang Qian changq2@illinois.edu (University of Illinois at Urbana-Champaign)
10:40	Wed-AW1-06 **Phase separation of colloidal gels can promote and hinder liquid phase separation** Poornima Padmanabhan poornima.padmanabhan@rit.edu (Department of Chemical Engineering, Rochester Institute of Technology)
09:00 - 11:00	**Session: Emulsions, Bubbles, Foams** Organizer/s: Daniel Miller, Karthik Nayani, Cari Dutcher Chair/s: Karthik Nayani
09:00	Wed-BW1-01 **In sheared highly polydisperse granular systems, large droplets affect smaller droplets significantly** Yonglun Jiang yonglun.jiang@emory.edu (Emory University)
09:20	Wed-BW1-02 **Mixing dynamics of bilgewater emulsions in Taylor Couette flows**

	Vishal Panwar panwa015@umn.edu (Department of Mechanical Engineering, University of Minnesota – Twin Cities)
09:40	Wed-BW1-03 **Remote Control of Aqueous Interfaces and Foam Stability with Photo-Switchable Polyelectrolyte-Surfactant Mixtures** Bjoern Braunschweig braunschweig@uni-muenster.de (University Muenster Institute of Physical Chemistry)
10:00	Wed-BW1-04 **Prediction and measurement of leaky dielectric drop interactions** Jeremy Kach jkach@andrew.cmu.edu (Department of Chemical Engineering, Carnegie Mellon University)
10:20	Wed-BW1-05 **Influence of polarity change and photophysical effects on photosurfactant-driven wetting** Serena Seshadri serenaseshadri@ucsb.edu (Department of Chemistry, University of California Santa Barbara, Santa Barbara, CA 93106)
10:40	Wed-BW1-06 **Endoskeletal Drops for Photoacoustic Imaging** Anish Silwal anish.silwal@colorado.edu (Department of Mechanical Engineering, University of Colorado, Boulder, CO 80309, USA)
09:00 - 11:00	**Session: Rheology & Complex Fluids** Organizer/s: Jeffrey Richards, Amanda Marciel Chair/s: Jeffrey Richards
09:00	Wed-DW1-01 **Polyelectrolytes Dynamics and Rheology, in a Pinch** Vivek Sharma viveks@uic.edu (Chemical Engineering, University of Illinois at Chicago, Chicago, IL 60608, United States)
09:20	Wed-DW1-02 **Differential dynamic microscopy enables high-throughput phase diagram mapping of polyelectrolyte complex coacervates** Yimin Luo yiminluo@ucsb.edu (Department of Chemical Engineering, University of California, Santa Barbara | Department of Mechanical Engineering, University of California, Santa Barbara)
09:40	Wed-DW1-03 **Nanoparticle Dynamics in Unentangled Polyelectrolyte Solutions**

	Ali H. Slim ahslim@uh.edu (University of Houston)
10:00	Wed-DW1-04 **Spinnability and Centrifugal Force Spinning of Fibers of Poly(ethylene Oxide) Solutions** Jorgo Merchiers cmart56@uic.edu (Hasselt University, Institute for Materials Research (IMO-IMOMEC), B-3590 Diepenbeek, Belgium)
10:20	Wed-DW1-05 **Designing elastoplastic 3D printable edible materials using jammed emulsions stabilized with pea proteins** Lakshminarasimhan Sridharan lakshminarasimh.sridharan@wur.nl (Bio-based Chemistry and Technology, Wageningen University, Wageningen, The Netherlands | TiFN, Wageningen, The Netherlands)
10:40	Wed-DW1-06 **Polysaccharides As Food Thickeners** Karthika Suresh ksuresh@uic.edu (University of Illinois, Chicago)
09:00 - 11:00	**Session: Applications of Scanning Probe Methods** Organizer/s: Dalia Yablon, James Batteas Chair/s: Dalia Yablon
09:00	Wed-FW1-01 **Using Atomic Force Microscopy to Quantitatively Study Tribochemical Reactions on 2D Materials (Keynote Lecture)** Jonathan Felts jonathan.felts@tamu.edu (Texas A&M Department of Mechanical Engineering)
09:40	Wed-FW1-02 **Dynamic measurement of ice growth by atomic force microscopy in aqueous solutions in the presence of ice-binding proteins** Sidney Cohen sidney.cohen@weizmann.ac.il (Weizmann Institute of Science)
10:00	Wed-FW1-03 **Probing the mechanical and structural properties of inverse bicontinuous cubic phase membranes by Atomic Force Microscopy based Force Spectroscopy** Andrea Ridolfi andrea.ridolfi@ismn.cnr.it (Consorzio Interuniversitario per lo Sviluppo dei Sistemi a Grande Interfase, Firenze, Italy | Consiglio Nazionale delle Ricerche, Istituto per lo Studio dei Materiali

	Nanostrutturati, Bologna, Italy | Dipartimento di Chimica “Ugo Schiff”, Universita? degli Studi di Firenze, Firenze, Italy)
10:20	Wed-FW1-04 **Visualizing bimodal rotational dynamics of protein nanorods at solid-liquid interfaces by high-speed AFM** Shuai Zhang zhangs71@uw.edu (Materials Science and Engineering, University of Washington, Seattle, WA, USA | Physical Sciences Division, Pacific Northwest National Laboratory, Richland, WA, USA)
10:40	Wed-FW1-05 **Using Deep Learning for Classification and Correlation of Impact Copolymer AFM Images** Ishita Chakraborty i.chak1983@gmail.com (Stress Engineering Services)
09:00 - 11:00	**Session: Surface and Interfacial Forces** Organizer/s: Mustafa Akbulut, Younjin Min, Ray Dagastine Chair/s: Mustafa Akbulut, Younjin Min
09:00	Wed-HW1-01 **Force measurements of the interfacial properties of grafted zwitterionic polymer** Syeda Tajin Ahmed tajinahmed0802@gmail.com (Department of Chemical and Biomolecular Engineering, University of Illinois at Urbana-Champaign)
09:20	Wed-HW1-02 **Solvent Selection and Dilution Process to Distinguish Particle Size and Surface Treatment** Jyo Lyn Hor jhor@dow.com (Process R&D, Dow Performance Silicones)
09:40	Wed-HW1-03 **Investigation of capillary interactions between 2D particles at fluid-fluid interfaces** Joseph Samaniuk samaniuk@mines.edu (Colorado School of Mines, Chemical and Biological Engineering)
10:00	Wed-HW1-04 **A colourful way to track the hindered diffusion of anisotropic nanoparticles** Christopher Bolton boltonc@unimelb.edu.au (Department of Chemical Engineering, University of Melbourne)
09:00 - 11:00	**Session: Colloids and Interfaces in Environmental Applications** Organizer/s: Xing Xie, Onur Apul, Chad Vecitis, Navid Saleh

	Chair/s: Chad Vecitis
09:00	Wed-JW1-01 **Characterizing and engineering nanoscale flows in membranes (Keynote Lecture)** Manish Kumar manish.kumar@utexas.edu (Department of Civil, Architectural and Environmental Engineering, University of Texas at Austin)
09:40	Wed-JW1-02 **Nanoscale shape-morphing in polyamide membranes enabled by 3D nanoscale imaging-analysis platform** Hyosung An hyosung@illinois.edu (Department of Materials Science & Engineering, University of Illinois, Urbana, Illinois, USA | Materials Research Laboratory, University of Illinois, Urbana, Illinois, USA)
10:00	Wed-JW1-03 **Electrochemically-active carbon nanotube coatings for biofouling mitigation: cleaning kinetics and energy consumption for cathodic and anodic regimes** Kimya Rajwade krajwade@asu.edu (School of Sustainable Engineering and Built Environment, Arizona State University | Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment, United States)
10:20	Wed-JW1-04 **Mechanisms of silica scaling on organic foulant-coated surfaces** Yarong Qi qiyarong@gwmail.gwu.edu (The George Washington University)
09:00 - 11:00	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Sarah Perry
09:00	Wed-KW1-01 **Establishing the Potential role of Benzyl Isothiocyanate as an anticancer through novel green nanoformulations** Khushwinder Kaur khushimakkar0306@gmail.com (Assistant Prof. Department of Chemistry Panj University Chandigarh India)
09:20	Wed-KW1-02 **Morphogenesis of silica microstructures in diatoms** Maria Feofilova maria.feofilova@mat.ethz.ch (Department of Materials, ETH Zürich)
09:40	Wed-KW1-03

	New Generation of Drug Delivery System based on Stimuli-Responsive Capsules Sabrina Belbekhouche sabrina.belbekhouche@u-pec.fr (Université Paris Est Creteil, CNRS, Institut Chimie et Matériaux Paris Est, UMR 7182, 2 Rue Henri Dunant, 94320 Thiais, France)
10:00	Wed-KW1-04 **Lubrication performance of sustainable microgel particles for fat replacement applications** Ben Kew ll14bk@leeds.ac.uk (Food Colloids Group, School of Food Science and Nutrition, University of Leeds)
10:20	Wed-KW1-05 **Drainage of protein foams and foam films** Lena Hassan lena.hassan79@gmail.com (Department of Chemical Engineering, University of Illinois at Chicago, Chicago, IL. 60608.)
10:40	Wed-KW1-06 **Phase Instability in Pharmaceutical Surfactant/Preservative Formulations** Peter H. Gilbert peter.gilbert@queensu.ca (NIST Center for Neutron Research, National Institute of Standards and Technology, Gaithersburg, MD 20899 | Department of Chemical and Biomolecular Engineering Department, Center for Neutron Science, University of Delaware, Newark, DE 19716)
09:00 - 11:00	**Session: Surface Science and Catalysis** Organizer/s: Danmeng Shuai, Paul DeSario Chair/s: Danmeng Shuai
09:00	Wed-LW1-01 **Enhanced colloidal stability and catalytic activity of gold nanoparticles in porous materials** Yingzhen Ma yma16@lsu.edu (Cain Department of Chemical Engineering, Louisiana State University, Baton Rouge, Louisiana 70803, USA)
09:20	Wed-LW1-02 **The Effect of CeO_2 Aerogel Supports on Activity, Speciation, and Stability of Nickel for CO Oxidation** Travis Novak travis.novak.ctr@nrl.navy.mil (US Naval Research Laboratory, National Research Council Postdoctoral Associate, Washington DC, USA)
09:40	Wed-LW1-03

	Uncovering Mechanisms of Tunable Alcohol Oxidation over Cu/TiO_2 Aerogel Materials at the Gas-Surface Interface Andrew Maynes amaynes@vt.edu (Virginia Tech Department of Chemistry)
10:00	Wed-LW1-04 **Understanding the Role of SnO_2 Surface Structure on Alcohol Oxidations using Ambient-Pressure X-ray Photoelectron Spectroscopy** Gregory Herman greg.herman@oregonstate.edu (School of Chemical, Biological, and Environmental Engineering, Oregon State University, Corvallis, OR, 97331)
10:20	Wed-LW1-05 **Selective Deposition of Nanoarchitectures using Surface Functionalization for Designing Next-Generation Catalyst Materials** Kathryn Perrine kaperrin@mtu.edu (Michigan Technological University)
10:40	Wed-LW1-06 **Controlling Metal Deposition on Bimetallic Plasmonic-Catalytic Nanostructures Using Visible Light** Michelle Personick mpersonick@wesleyan.edu (Wesleyan University, Department of Chemistry)
09:00 - 11:00	**Session: Interfacing Biology with Materials** Organizer/s: Ariel Furst, Yi Zhang Chair/s: Ariel Furst, Yi Zhang
09:00	Wed-NW1-01 **DNA-programmed Assembly of Nanoparticle Superlattices at Interfaces (Keynote Lecture)** Robert Macfarlane rmacfarl@mit.edu (Department of Materials Science, Massachusetts Institute of Technology)
09:40	Wed-NW1-02 **Information storage via immobilization of encoded DNA on ultra-high surface-area magnetic soft dendritic colloids** Cyrus Cao ycao27@ncsu.edu (Department of Chemical and Biomolecular Engineering, North Carolina State University, Raleigh)
10:00	Wed-NW1-03 **Sum frequency generation (SFG) microscopy analysis of cellulose microfibrils in Physcomitrium patens and the effect of Cellulose Synthase (CESA) mutation** Jongcheol Lee jul1371@psu.edu

	(Department of Chemical Engineering, and Material Research Institute, Pennsylvania State University, University Park, Pennsylvania 16802, United States)
10:20	Wed-NW1-04 **Sum frequency generation (SFG) microscopy analysis of cellulose microfibrils in Physcomitrium patens and the effect of Cellulose Synthase (CESA) mutation** Jongcheol Lee jul1371@psu.edu (Department of Chemical Engineering, and Material Research Institute, Pennsylvania State University, University Park, Pennsylvania 16802, United States)
10:40	Wed-NW1-05 **Straining Membrane Vesicles and Cells in Aqueous Nematic Liquid Crystals** Purvil Jani prj26@cornell.edu (Robert Frederick Smith School of Chemical and Biomolecular Engineering, Cornell University, Ithaca, NY, USA 14853)
09:00 - 11:00	**Session: Chemical Interactions Between Colloids and at Interfaces** Organizer/s: Robert Macfarlane, Matthew Jones Chair/s: Robert Macfarlane
09:00	Wed-OW1-01 **Atomically Precise Chemical, Physical, Electronic, and Spin Contacts (Keynote Lecture)** Paul S. Weiss psw@cnsi.ucla.edu (Departments of Chemistry & Biochemistry, Bioengineering, and Materials Science & Engineering and California NanoSystems Institute, UCLA, Los Angeles, CA 90095, USA)
09:40	Wed-OW1-02 **Investigation of Ion Pairing Between Alkali Metal Cations and Anionic Surfactant Monolayers** Kenneth Judd kdj6@psu.edu (Department of Chemistry, The Pennsylvania State University, University Park, PA 16802)
10:00	Wed-OW1-03 **Quantification of the Spatial Binding Preferences for Nanoparticle Surface Ligands through a Molecule Labeling Strategy** Zhi Yang zy28@rice.edu (Department of Chemistry, Rice University)
10:20	Wed-OW1-04 **Microgels at the air-water interface: compression and shear response probed by a novel quadrotrough** Benjamin Thompson bthompsn@udel.edu (Department of Chemical and Biomolecular Engineering, University of Delaware)

10:40	Wed-OW1-05 **Unraveling switch roles of lead ions in scheelite and fluorite flotation with AFM force mapping and flrst-principles calculations** Jianyong He hjy2016@csu.edu.cn (School of Minerals Processing and Bioengineering and Key Laboratory of Hunan Province for Clean and Efficient Utilization of Strategic Calcium-containing Mineral Resources, Central South University, Changsha, Hunan 410083, China)
09:00 - 11:00	**Session: Nanomaterials & Advanced Manufacturing** Organizer/s: Amy Peterson, Esteban Urena-Benavides Chair/s: Amy Peterson
09:00	Wed-PW1-01 **Manufacturing Functional Materials from Polydisperse Anisotropic Nanomaterial Dispersions (Keynote Lecture)** Virginia Davis davisva@auburn.edu (Department of Chemical Engineering Auburn University)
09:40	Wed-PW1-02 **Scalable synthesis of soft nanofiber forests using liquid crystals and emergent electro-optical properties** Sangchul Roh sr974@cornell.edu (Smith School of Chemical and Biomolecular Engineering, Cornell University)
10:00	Wed-PW1-03 **Highly Conductive Silicone Elastomers via Water-Induced Swelling and In Situ Synthesis of Silver Nanoparticles** Hong Zhao hzhao2@vcu.edu (Virginia Commonwealth University, USA)
10:20	Wed-PW1-04 **Chemical and Engineering Approaches for Soft Material Additive Manufacturing (Keynote Lecture)** AJ Boydston aboydston@wisc.edu (Department of Chemistry University of Wisconsin Madison, WI 53706)
09:00 - 11:00	**Session: Fundamental/General Aspects of Colloids and Interfaces** Organizer/s: Ning Wu, Vivek Narsimhan Chair/s: Ning Wu
09:00	Wed-QW1-01 **Structural Investigations of $LiCoO_2$ (001) by UHV- Scanning Tunneling Microscopy and Low Energy Electron Diffraction** Yuchen Niu niu@umd.edu (Dept. of Chemistry & Biochemistry University of Maryland, College Park)
09:20	Wed-QW1-02

	Polarizability of Metallodielectric Janus Particles in Electrolyte Solutions. Carlos Silvera Batista silvera.batista@vanderbilt.edu (Chemical and Biomolecular Engineering, Vanderbilt University)
09:40	Wed-QW1-03 **Capillary force on an 'inert' colloid: a physical analogy to dielectrophoresis** Joseph Barakat josephbarakat@ucsb.edu (University of California, Santa Barbara)
10:00	Wed-QW1-04 **Liquid-Phase TEM Imaging of Oriented Attachment in Nanoparticle Superlattices Assisted by Machine Learning** Chang Liu changl5@illinois.edu (University of Illinois at Urbana-Champaign)
10:20	Wed-QW1-05 **Synthesis of hybrid inorganic-organic microparticles with controlled composition** Shreyas Joshi ssjoshi@umass.edu (University of Massachusetts Amherst)
10:40	Wed-QW1-06 **A smectic liquid crystal Langmuir film at the air/water interface: boundaries, thermodynamics and dynamics** Huda Alwusaydi halwusa1@kent.edu (Kent State University, Department of Physics, Kent, OH, USA)
11:20 - 12:10	**Session: 2020 LaMer Award Lecture** Organizer/s: Ramanathan Nagarajan Chair/s: Matthew Helgeson
11:20	Introduction of 2020 LaMer Award Recipient by Matthew Helgeson, LaMer Committee Chair and 95th CSSS Co-Chair
11:25	Wed-SW1-01 **Redox-Active Electrochemical Interfaces for Molecularly-Selective Separations** Xiao Su x2su@illinois.edu (Chemical and Biomolecular Engineering, University of Illinois Urbana-Champaign)
12:40 - 13:30	**Session: 2021 LaMer Award Lecture** Organizer/s: Ramanathan Nagarajan Chair/s: Matthew Helgeson
12:40	Introduction of 2021 LaMer Award Recipient by Matthew Helgeson, LaMer Committee Chair and 95th CSSS Co-Chair
12:45	Wed-SW2-01 **Designing Nanoparticles for Self-Assembly of Novel Materials**

	Rose K. Cersonsky rose.cersonsky@epfl.ch (Macromolecular Science and Engineering, University of Michigan, Ann Arbor, Michigan | Laboratory of Computational Science and Modeling, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland.)
13:40 - 15:00	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Jaime Juarez
13:40	Wed-AW2-01 **Surface charge heterogeneity directed particle migration and assembly** Xiaoyu Tang x.tang@northeastern.edu (Chemical Engineering, University of California, Santa Barbara)
14:00	Wed-AW2-02 **Probing interparticle interactions during formation of transient aggregates by chemical fuels** Thilini U. Dissanayake tumesha@terpmail.umd.edu (Department of Chemical and Biomolecular Engineering, University of Maryland, College Park)
14:20	Wed-AW2-03 **Inducing and Controlling Colloidal Stratification with a Binary Solvent Mixture** Shengfeng Cheng chengsf@vt.edu (Virginia Tech)
14:40	Wed-AW2-04 **Tunable assemblies of gold nanoparticles in smectic liquid crystals confined at curved interfaces** Mohamed Amine Gharbi mohamed.gharbi@umb.edu (Department of Physics, University of Massachusetts Boston)
13:40 - 15:00	**Session: Emulsions, Bubbles, Foams** Organizer/s: Daniel Miller, Karthik Nayani, Cari Dutcher Chair/s: Karthik Nayani
13:40	Wed-BW2-01 **Preparation of carbon dioxide emulsions and foams using cellulose nanocrystals at high temperature and pressure** Sanjiv Parajuli sanjiv.parajuli@utsa.edu (University of Texas at San Antonio)
14:00	Wed-BW2-02 **Production and stabilization of foams by fatty acid crystals in high alcohol content solvents** Yingzhen Ma yma16@lsu.edu

	(Cain Department of Chemical Engineering, Louisiana State University, Baton Rouge, Louisiana 70803, USA)
14:20	Wed-BW2-03 **Liquid crystal emulsions stabilized by nanoparticles** Claribel Acevedo-Vélez claribel.acevedo@upr.edu (Department of Chemical Engineering University of Puerto Rico-Mayaguez)
14:40	Wed-BW2-04 **Superparamagnetic iron oxide (Fe_3O_4) coated cellulose nanocrystals as a recyclable additive for the emulsification and demulsification of magnetically controlled castor oil/water emulsions** Mohammad Jahid Hasan mj.hasan1991@gmail.com (Department of Biomedical Engineering and Chemical Engineering, The University of Texas at San Antonio, San Antonio, TX, 78249, USA)
13:40 - 15:00	**Session: Rheology & Complex Fluids** Organizer/s: Jeffrey Richards, Amanda Marciel Chair/s: Jeffrey Richards
13:40	Wed-DW2-01 **Spherically confined Brownian suspensions: influence of locally heterogenous structure on diffusion and rheology** Alp Sunol asunol@stanford.edu (Chemical Engineering, Stanford University)
14:00	Wed-DW2-02 **Diffusion of proteins throughout aqueous block polymer liquid crystals – the effect of polymer architecture, temperature, and concentration.** Connor Valentine connorv@andrew.cmu.edu (Carnegie Mellon University)
14:20	Wed-DW2-03 **Structural Investigation of Salt-Induced Local Ordering in Amorphous Protein Dense Phases** Brian Paul bpaul@udel.edu (Department of Chemical & Biomolecular Engineering, University of Delaware)
14:40	Wed-DW2-04 **Rheology and Pinching Dynamics of Associative Polysaccharide Solutions** Carina Martinez cmart56@uic.edu (University of Illinois at Chicago)
13:40 - 15:00	**Session: Applications of Scanning Probe Methods** Organizer/s: Dalia Yablon, James Batteas Chair/s: James Batteas

13:40	Wed-FW2-01 **Using high-speed, molecularly-resolved AFM and fast force mapping to investigate nucleation and solution structure at surfaces (Keynote Lecture)** James J. De Yoreo james.deyoreo@pnnl.gov (Physical Sciences Division, Pacific Northwest National Laboratory, Richland, WA | Materials Science and Engineering, University of Washington, Seattle, WA)
14:20	Wed-FW2-02 ***In Situ* Study of the Lubrication Mechanism of Phosphonium Phosphate Ionic Liquid in Nanoscale Single-Asperity Sliding Contacts** Filippo Mangolini filippo.mangolini@austin.utexas.edu (Texas Materials Institute, The University of Texas at Austin, Austin, Texas 78712, USA | Walker Department of Mechanical Engineering, The University of Texas at Austin, Austin, Texas 78712, USA)
14:40	Wed-FW2-03 **Manipulating colloids, measuring masses, and probing forces at the solid-liquid interface using atomic force microscopy** Christina Newcomb newcomb@nanosurf.com (Nanosurf)
13:40 - 15:00	**Session: Surface and Interfacial Forces** Organizer/s: Mustafa Akbulut, Younjin Min, Ray Dagastine Chair/s: Mustafa Akbulut, Younjin Min
13:40	Wed-HW2-01 **Surface Forces and Stratification in Micellar Foam Films & Soap Bubbles (Keynote Lecture)** Vivek Sharma viveks@uic.edu (Chemical Engineering, University of Illinois at Chicago)
14:20	Wed-HW2-02 **Drainage via Stratification in Micellar Foam Films of Aqueous Sodium Naphthenate Solutions** Chrystian Ochoa cochoa6@uic.edu (Department of Chemical Engineering, University of Illinois at Chicago)
14:40	Wed-HW2-03 **The effect of headgroup charge on the stiffness of symmetric and asymmetric phospholipid bilayers** Peter Beltramo pbeltramo@umass.edu (University of Massachusetts Amherst)
13:40 - 15:00	**Session: Colloids and Interfaces in Environmental Applications** Organizer/s: Xing Xie, Onur Apul, Chad Vecitis, Navid Saleh Chair/s: Xing Xie

13:40	Wed-JW2-01 **Photoreactive Electrospun Filters for Controlling Airborne Transmission of SARS-CoV-2** Hongchen Shen hongchenshen@gwmail.gwu.edu (The George Washington University)
14:00	Wed-JW2-02 **Impact of NO/NO_2 Aging on the Capacity of Silver Mordenite for Iodine Adsorption** Alexander Wiechert awiechert3@gatech.edu (School of Civil and Environmental Engineering, Georgia Institute of Technology)
14:20	Wed-JW2-03 **Aging mechanisms of silver-functionalized silica aerogel in NO_2-containing gas streams** Ziheng Shen zshen83@gatech.edu (School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, Georgia 30332, United States)
14:40	Wed-JW2-04 **Pt catalyst on novel ceria-based support with fine CeO2 particles for efficient emission control** Fudong Liu fudong.liu@ucf.edu (Department of Civil, Environmental, and Construction Engineering, Catalysis Cluster for Renewable Energy and Chemical Transformations (REACT), NanoScience Technology Center (NSTC), University of Central Florida, Orlando, FL 32816, United States)
13:40 - 15:00	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Lydia Kisley
13:40	Wed-KW2-01 **From pointy fangs to polymer fibers: interfacial materials processing using a bloodworm multi-tasking polypeptide** Matthew Helgeson helgeson@ucsb.edu (University of California, Santa Barbara)
14:00	Wed-KW2-02 **Design and Use of a Thermogelling Methylcellulose Nanoemulsion to Formulate Nanocrystalline Oral Dosage Forms** Liang-Hsun Chen lhchen@mit.edu (Department of Chemical Engineering, Massachusetts Institute of Technology)
14:20	Wed-KW2-03

	In Vivo Quantitative Imaging of Nanoparticles and Cells Using Magnetic Particle Imaging (Keynote Lecture) Carlos M. Rinaldi-Ramos carlos.rinaldi@ufl.edu (Department of Chemical Engineering, University of Florida, Gainesville, FL | J. Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, Gainesville, FL 32611)
13:40 - 15:00	**Session: Surface Science and Catalysis** Organizer/s: Danmeng Shuai, Paul DeSario Chair/s: Danmeng Shuai
13:40	Wed-LW2-01 **Design and Characterization of a Bioinspired Molybdenum Catalyst for Aqueous Perchlorate Reduction** Jinyong Liu jinyongl@ucr.edu (1Department of Chemical and Environmental Engineering, University of California, Riverside, CA 92521, United States)
14:00	Wed-LW2-02 **Bioinspired Catalytic Reduction of Aqueous Perchlorate by One Single-Metal Site with High Stability against Oxidative Deactivation** Changxu Ren cren005@ucr.edu (Department of Chemical and Environmental Engineering, University of California, Riverside, CA 92521, United States.)
14:20	Wed-LW2-03 **Evaluation of a Molybdenum Catalyst for Perchlorate Reduction for Engineering Application** Eric Bi jinyongl@ucr.edu (Department of Chemical and Environmental Engineering, University of California, Riverside, CA 92521, United States | Martin Luther King High School, Riverside, CA 92508, United States)
14:40	Wed-LW2-04 **Mapping cooperative ligand adsorption at the sub-particle level** Rong (Rocky) Ye ry279@cornell.edu (Department of Chemistry and Chemical Biology, Cornell University)
13:40 - 15:00	**Session: Interfacing Biology with Materials** Organizer/s: Ariel Furst, Yi Zhang Chair/s: Ariel Furst, Yi Zhang
13:40	Wed-NW2-01 **Understanding the Transition from Non-living to Living: Characterization of Protocell Systems Based on Aqueous Phase Coexistence (LaMer Keynote Lecture)** Fatma Pir Cakmak fatmapir@mit.edu

	(MIT, Physics)
14:20	Wed-NW2-02 **Manipulating Lipid Membrane Rigidity at the Nanoscale: Lessons for Drug Delivery** Judith De Mel ldemel@olemiss.edu (Department of Biomedical Engineering, The University of Mississippi, Oxford, MS, USA)
13:40 - 15:00	**Session: Chemical Interactions Between Colloids and at Interfaces** Organizer/s: Robert Macfarlane, Matthew Jones Chair/s: Matthew Jones
13:40	Wed-OW2-01 **The Role of Voids and Porosity On The Transport of Macromolecules through 3-D Printed Polymeric Materials** Angela Zeigler angela.m.zeigler3.civ@mail.mil (U. S. Army Combat Capabilities Development Command Chemical Biological Center, Research & Technology Directorate, 8198 Blackhawk Rd, Aberdeen Proving Ground, MD 21010)
14:00	Wed-OW2-02 **Conformation Studies of Model Monodisperse Polystyrene Blends in Solution with Chain-End Interactions** Avanish Bharati bharatia@udel.edu (Center for Neutron Research, National Institute of Standards and Technology, Gaithersburg, MD 20899 | Chemical and Biomolecular Engineering, University of Delaware, Newark, DE 19716)
14:20	Wed-OW2-03 **Deposit control in the engine: experiments and multi-scale molecular modeling** Anil Agiral anil.agiral@lubrizol.com (The Lubrizol Corporation)
13:40 - 15:00	**Session: Nanomaterials & Advanced Manufacturing** Organizer/s: Amy Peterson, Esteban Urena-Benavides Chair/s: Esteban Urena-Benavides
13:40	Wed-PW2-01 **Controlled scalable nanofabrication of new classes of colloidal polymer morphologies in sheared liquids** Rachel Bang rsbang@ncsu.edu (North Carolina State University, Chemical and Biomolecular Engineering)
14:00	Wed-PW2-02 **Fabricating Robust Nanostructured Constructs Using *In Situ* Self-assembly of Surfactants in *Liquid-in-Liquid* 3D printing**

	Houman Honaryar hh7bg@mail.umkc.edu (Department of Civil & Mechanical Engineering, University of Missouri-Kansas City, Kansas City, Missouri 64110, USA)
14:20	Wed-PW2-03 **PDMS/PMMA Interpenetrating Networks: Synthesis, Characterization, and Mechanical Properties** Tyler Heyl trh67@u.northwestern.edu (Department of Chemical and Biological Engineering, Northwestern University, Evanston, Illinois 60208)
14:40	Wed-PW2-04 **Au_{32} Nanoclusters are a Seed for Gold Nanorod Synthesis** Liang Qiao lq8@rice.edu (Department of Chemistry, Department of Materials Science & Nanoengineering, Rice University, Houston, Texas 77005, United States)
15:20 - 16:40	**Session: Self and Directed Assembly in Colloidal Systems** Organizer/s: Jaime Juarez, Samanvaya Srivastava Chair/s: Jaime Juarez
15:20	Wed-AW3-01 **Self assembled colloids and their aggregation in an anisotropic solvent.** Devika Gireesan Sudha dgireesansudha@ucmerced.edu (University of California Merced)
15:40	Wed-AW3-02 **Visualizing rapid assembly of platinum supraparticles during nanoparticle synthesis with liquid phase transmission electron microscopy** Taylor Woehl tjwoehl@umd.edu (Department of Chemical and Biomolecular Engineering, University of Maryland, College Park)
16:00	Wed-AW3-03 **Orientational Control and Assembly of Shaped Nanoparticles at Interfaces** Yilong Zhou yz393@duke.edu (Department of Mechanical Engineering and Materials Science, Duke University, Durham, North Carolina 27708, United States)
16:20	Wed-AW3-04 **Structure and anisotropic dynamics of stimuli responsive colloidal ellipsoids at the nearest neighbour length scale** Antara Pal antara.pal@fkem1.lu.se (Division of Physical Chemistry, Lund University, Lund, Sweden)
15:20 - 16:40	**Session: Applications of Scanning Probe Methods** Organizer/s: Dalia Yablon, James Batteas

	Chair/s: Filippo Mangolini
15:20	Wed-FW3-01 **Advanced Applications of Scanning Probe Nanolithography (Keynote Lecture)** Gang-yu Liu gyliu@ucdavis.edu (Department of Chemistry University of California Davis, CA 95616)
16:00	Wed-FW3-02 **Closed-Loop Nanopatterning of Liquids with Dip-Pen Nanolithography** Verda Saygin saygin@bu.edu (Department of Mechanical Engineering, Boston University, 110 Cummington Mall, Boston, Massachusetts 02215, United States)
15:20 - 16:40	**Session: Surface and Interfacial Forces** Organizer/s: Mustafa Akbulut, Younjin Min, Ray Dagastine Chair/s: Mustafa Akbulut, Younjin Min
15:20	Wed-HW3-01 **Interaction forces and nanotribology of surfaces modified with bioinspired polyelectrolyte coatings** Marina Ruths marina_ruths@uml.edu (Department of Chemistry, University of Massachusetts Lowell, Lowell, MA, USA)
15:40	Wed-HW3-02 **Investigation of Nanorehelogical Properties of Confined Geocolloids** Thiranjeewa Lansakara thiranjl@ucr.edu (Department of Chemical and Environmental Engineering, University of California Riverside)
16:00	Wed-HW3-03 **Polymer-surfactant complex and shear mediated non-equilibrium colloidal deposition trajectories** Lechuan Zhang lzhan145@jhu.edu (Chemical & Biomolecular Engr., Johns Hopkins Univ., Baltimore, MD 21218)
16:20	Wed-HW3-04 **Electrostatic Wetting Transition: Charge inversion and Like Charge attraction** Nikhil Agrawal nikhil.agrawal@berkeley.edu (Department of Chemical and Biomolecular Engineering, University of California, Berkeley, California 94720, USA)
15:20 - 16:40	**Session: Colloids and Interfaces in Environmental Applications** Organizer/s: Xing Xie, Onur Apul, Chad Vecitis, Navid Saleh Chair/s: Xing Xie
15:20	Wed-JW3-01

	Interfacial tensions and film drainage times with surfactant stabilized emulsions: Towards improved liquid-liquid separation Rana Bachnak bachn003@umn.edu (Department of Mechanical Engineering, University of Minnesota – Twin Cities, 111 Church Street SE, Minneapolis, MN 55455)
15:40	Wed-JW3-02 **Heteroaggregation of Neutral and Charged Nanoparticles: Making Core-Shell Nanohybrids Through Self-Assembly** Peng Yi pyi@fau.edu (Department of Civil, Environmental and Geomatics Engineering, Florida Atlantic University)
16:00	Wed-JW3-03 **All-Nanoparticle Surface Functionalization for Mid-Infrared On-Chip Sensing** Diana Al Husseini dianaalhusseini1@tamu.edu (Department of Materials Science & Engineering, Texas A&M University, College Station, Texas 77843, USA)
16:20	Wed-JW3-04 **Fluorinated surfactant self-assembly in aqueous solution for sequestration applications** Samhitha Kancharla skanchar@buffalo.edu (Chemical and Biological Engineering, SUNY Buffalo, Buffalo, NY, United States)
15:20 - 16:40	**Session: Colloids and Interfaces in Biology and Medicine** Organizer/s: Sarah Perry, Lydia Kisley Chair/s: Sarah Perry
15:20	Wed-KW3-01 **Osmotic-Capillary Principles for Microfluidic Pumping and Fluid Management for Sweat Sensing Devices** Tamoghna Saha tsaha@ncsu.edu (Department of Chemical and Biomolecular Engineering, North Carolina State University)
15:40	Wed-KW3-02 **Quantiitative, Label-Free Yeast Cell Viability Determination Using Total Holographic Characterization** Laura Philips laphilips@gmail.com (Spheryx, Inc.)
16:00	Wed-KW3-03 **Microfluidics for high throughput sorting and preservation of pancreatic islets** Nikhil Sethia sethi045@umn.edu

	(Department of Chemical Engineering and Material Science, University of Minnesota Twin Cities, Minneapolis, MN 55455, USA)
16:20	Wed-KW3-04 **Engineering the nano-bio interface in paper immunoassays for infectious diseases** Kimberly Hamad-Schifferli kim.hamad@umb.edu (Department of Engineering, School for the Environment, University of Massachusetts Boston)
15:20 - 16:40	**Session: Surface Science and Catalysis** Organizer/s: Danmeng Shuai, Paul DeSario Chair/s: Chris Karwacki
15:20	Wed-LW3-01 **Towards New Tools for Heterogeneous Catalysis using Soft Materials: Hydrogenation of Nitrile-Containing Liquid Crystals on Palladium Surfaces** Nanqi Bao nb543@cornell.edu (Cornell University)
15:40	Wed-LW3-02 **Changing the Shape of Water in Micropores and the Impact of Non-Covalent Interactions on Catalysis** David Flaherty dwflhrty@illinois.edu (University of Illinois at Urbana-Champaign)
16:00	Wed-LW3-03 **Surface chemistry control of the properties of aluminum nanocrystals for sustainable photocatalysis (LaMer Keynote Lecture)** Hossein Robatjazi hr10@rice.edu (Syzygy Plasmonics, Inc. Houston, Texas | Department of Chemistry, Rice University, Houston, Texas)
15:20 - 16:40	**Session: Interfacing Biology with Materials** Organizer/s: Ariel Furst, Yi Zhang Chair/s: Ariel Furst, Yi Zhang
15:20	Wed-NW3-01 **Electroadhesion of Polyelectrolyte Hydrogels to Animal Tissues: A Simple Way to Reseal Cut or Damaged Tissues Without Sutures** Leah Borden lkborden@umd.edu (University of Maryland College Park, MD)
15:40	Wed-NW3-02 **Chemically fueled assembly of protein hydrogels driven by a redox cycle** Shakiba Nikfarjam shnikfar@umd.edu

	(Department of Chemical and Biomolecular Engineering, University of Maryland, College Park)
16:00	Wed-NW3-03 **Multi-Compartment Capsules (MCCs) with Bacteria and Fungi in Distinct Compartments: A Platform for Studying Cross-Kingdom Signaling** So Hyun Ahn sohyun1@umd.edu (Chemical and Biomolecular Engineering, University of Maryland)
17:00 - 19:00	**Session: Poster Session 2** Organizer/s: Davita Watkins, Lorena Tribe Chair/s: Davita Watkins, Lorena Tribe The session is intended for Q&A of poster presenters. The session is divided into 40 minute blocks. In the first two time blocks, poster presenters from Posters RW-1 to RW-11; and RW-12 to RW-22, respectively will participate in a Q & A session. In the last time block, the judges will deliberate and announce the Langmuir Poster Award winners
	Wed-RW-01 **Organic matter is leaching from microplastics: Can they be removed from water by carbon adsorption?** Ashton Collins ashton.collins@maine.edu (Department of Civil and Environmental Engineering, University of Maine, Orono, ME 04473)
	Wed-RW-02 **Single-Particle Hyperspectral Imaging Reveals Kinetics of Silver Ion Leaching from Alloy Nanoparticles** Alexander Al-Zubeidi aa106@rice.edu (Department of Chemistry, Rice University, 6100 Main Street, Houston, Texas 77005, United States | Smalley-Curl Institute, Rice University, 6100 Main Street, Houston, Texas 77005, United States)
	Wed-RW-03 **Patterning of thin polymer film from dynamics of contact line; guided by chemically patterned surface** KANISKA MURMU kaniska.m@iitg.ac.in (Department of Chemical Engineering, IIT Guwahati, Assam, 781039.)
	Wed-RW-04 **A microneedle-based potentiometric sensing system for continuous monitoring of multiple electrolytes in skin ISF** Huijie Li huijie.li@uconn.edu (Department of Biomedical Engineering, Institute of Materials Science, University of Connecticut, Storrs, Connecticut 06269, United States)
	Wed-RW-05

Nanoemulsion-Loaded Capsules for Controlled Delivery of Lipophilic Active Ingredients
Liang-Hsun Chen lhchen@mit.edu
(Department of Chemical Engineering, Massachusetts Institute of Technology)

Wed-RW-06
Preparation of Cu-based Metal-Organic Structures Doped with Ag ion and Their Hydrogen Adsorption Behavior at Low temperature and Ambient Pressure
Shinichi Hata hata@rs.socu.ac.jp
(Sanyo-Onoda City University)

Wed-RW-07
Preparation of Pd-Rh Alloy Nanocatalyst Loading Porous Polymer and Decomposition Characteristics for Organic Dye Molecules
Shinichi Hata hata@rs.socu.ac.jp
(Sanyo-Onoda City University)

Wed-RW-08
Use of an NIR-light-responsive $W_{18}O_{49}$ to improve photocatalytic hydrogen evolution
Inju Hong inju0515@postech.ac.kr
(POSTECH(Pohang university of Science and Technology))

Wed-RW-09
Removal of Copper corrosion products from bronze artworks using PVA-based peelable systems
Andrea Casini andrea.casini@unifi.it
(Department of Chemistry “Ugo Schiff” and CSGI, via della Lastruccia 3, 50019, Sesto Fiorentino (FI), Italy)

Wed-RW-10
Novel microcleaners for microplastic remediation using biodegradable dendricolloids
Rachel Bang rsbang@ncsu.edu
(North Carolina State University, Chemical and Biomolecular Engineering)

Wed-RW-11
Template-assisted assembly of electrospun fibers: effect on collection efficiency
Mahmoud Moustafa mahmoudme@vcu.edu
(Virginia Commonwealth University, Department of Chemical and Life Science Engineering)

Wed-RW-12
Magnetically aligned PDMS beads for 3D printed architectures
Natasha Castellanos nimorale@ncsu.edu

(Department of Chemical and Biomolecular Engineering, North Carolina State University)

Wed-RW-13
Measuring the Effect of Cations on Iron Surface Corrosion and Mineral Formation using Atomic Force Microscopy
Kayleigh Wahr knwahr@mtu.edu
(Department of Chemistry, Michigan Technological University, Houghton, MI 49931)

Wed-RW-14
Inactivation of lung surfactant by phospholipase-catalyzed degradation
Julia M. Fisher juliafisher@ucsb.edu
(Department of Chemical Engineering, University of California, Santa Barbara)

Wed-RW-15
Light Emission from Plasmonic Nanostructures
Behnaz Ostovar bo6@rice.edu
(Department of Electrical and Computer Engineering, Rice University)

Wed-RW-16
Evanescent Wave Trochoidal Polarization Sensitivity is Modulated by Nanoparticle Symmetry
Lauren McCarthy lam14@rice.edu
(Department of Chemistry, Rice University, 6100 Main Street, MS 60, Houston, Texas 77005, United States.)

Wed-RW-17
Plasmon Energy Transfer in AuNR-Polymeric Hybrid Nanoantennas
Emily K. Searles es54@rice.edu
(Department of Chemistry, Rice University, 6100 Main Street, Houston, Texas 77005, United States)

Wed-RW-18
Machine-Learned Decision Trees for Predicting Gold Nanorod Dimensions from Spectra Alone
Katsuya Shiratori ks77@rice.edu
(Applied Physics Graduate Program, Rice University | Department of Chemistry, Rice University)

Wed-RW-19
Enhanced optical asymmetry in supramolecular chiroplasmonicassemblies with long-range order
Jun Lu luju@umich.edu
(Univeristy of Michigan, Department of Chemical Engineering)

Wed-RW-20

	Functional High Order Localized Surface Plasmon Modes in Au-Si-Au Nanodisk Stacking Vida Nooshnab gck811@my.utsa.edu (The University of Texas at San Antonio)
	Wed-RW-21 **Probing incident light polarization dependent photothermal heating in plasmonic nanostructures via electronic Raman thermometry** Boqin Zhao zhaoboqin58@tamu.edu (Department of Chemistry, Texas A&M University)
	Wed-RW-22 **Analyzing Plasmon Mediated Reactions through Raman Thermometry** Annika Lee aslee855@gmail.com (Texas A&M chemistry)