Division of Colloid and Surface Chemistry, COLL

American Chemical Society National Meeting Program

April 5-30, 2021

Up-to-date official meeting program available online at:
https://acs.digitellinc.com/acs/live/8/

Use the link above to access Zoom links for the symposium sessions on the day of the session.

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COLL Division Open Business Meeting: Thursday, April 8, 12-1 pm (PDT).
See ACS online program for link to join the meeting.

COLL Division Social Hours: The COLL division will host two social hours during the ACS meeting: **Tuesday, April 6, 7 am – 9 am (PDT)** and **Thursday, April 8, 4-6 pm (PDT)**. We will be using an online meeting space that allows for informal and casual interaction. To join the social hours follow this link:

https://gather.town/app/csRceywFm2tCR44H/chem

The password for the space is: ACSCOLL

We invite presenters, organizers, members, and anyone interested to join us. COLL division poster presenters may present their posters in this social hour space (in addition to their regular presentation). If interested in presenting your poster at the social hour, contact Steve Tait, tait@indiana.edu.

Abstract submission for the ACS Fall 2021 National Meeting is now open. Abstract deadline is April 12, 2021. The fall meeting is being planned to have both in-person and online presentations.

If you are interested in organizing a symposium for the Spring or Fall meeting in 2022, please contact COLL program chair Steve Tait, tait@indiana.edu.

Self-assembly in Polymer Systems. (COLL001B)

Friday 04/09/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Andreas Walther** *Programming lifecycles in chemically powered and life-like out-of-equilibrium self-assemblies* (30 minutes, 3554055)

9:30 AM: **Felix Plamper** *Triggering and recycling of nonequilibrium micelles* (30 minutes, 3541768)

10:00 AM: **Ian Manners** *Controlled self-assembly of polymeric amphiphiles driven by crystallization* (30 minutes, 3532167)

10:30 AM: **Walter Richtering** *Self-assembly of soft microgels at interfaces: Tuning between macromolecular and colloidal behaviors* (30 minutes, 3548561)

11:00 AM: **Frans Leermakers** *Structure and colloidal stability of adsorption layers of macrocycle, linear, comb, star, and dendritic macromolecules* (30 minutes, 3551951)

11:00 AM: **Fabien Leonforte** *Structure and colloidal stability of adsorption layers of macrocycle, linear, comb, star, and dendritic macromolecules* (30 minutes, 3551951)

11:30 AM: **Sebastien Lecommandoux** *Self-assembly of biomimetic polypeptide and protein based copolymers: From conformational control to functional biomaterials* (30 minutes, 3531751)

Self-assembly in Polymer Systems. (COLL001A)

Friday 04/09/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Bradley Olsen** *Elastin-like protien-globular protein fusion constructs as a method for high-throughput self-assembly of functional nanostructures* (30 minutes, 3553312)

1:30 PM: **Mitchell Winnik** *Penetration of rod-like block copolymer micelles into multicellular tumor spheroids* (30 minutes, 3531495)

2:00 PM: **Rebecca Schulman** *Autonomous generation and healing of chemical patterns within hydrogels* (30 minutes, 3548086)

2:30 PM: **Nicholas Stephanopoulos** *Hybrid nanomaterials through the self-assembly of coiled-coil peptides and DNA nanostructures* (30 minutes, 3544006)

3:00 PM: **Sarah Perry** *Charge patterning, polymer chemistry, and complex coacervation* (30 minutes, 3548477)

3:30 PM: **Martin Bakker** *New wrinkles on an old plastic: Self-assembling resorcinol-formaldehyde polymerization and conversion to hierarchically porous carbons* (30 minutes, 3552169)

Self-assembly in Polymer Systems. (COLL001D)

Monday 04/12/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Marcus Mueller** *Do we understand the early stages of self-assembly in copolymer materials?* (30 minutes, 3554134)

9:30 AM: **Bas van Ravensteijn** *Bio-inspired out-of-equilibrium colloidal assembly* (30 minutes, 3545659)

10:00 AM: **Steven Armes** *Shape-shifting thermoresponsive diblock copolymer nano-objects via polymerization-induced self-assembly* (30 minutes, 3557165)

10:30 AM: **Stacy Copp** *Self-assembly of short-chain polyelectrolyte block copolymers into fluid biomimetic membranes* (30 minutes, 3554909)

11:00 AM: **Ulrich Wiesner** *Self-assembly in block copolymer systems* (30 minutes, 3556066)

11:30 AM: **Karen Winey** *Self-assembly of segmented polyolefin Ionomers: New morphologies and ion conductivity* (30 minutes, 3555181)

Self-assembly in Polymer Systems. (COLL001C)

Monday 04/12/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Cecilia Leal** *Alloying block-copolymers (BCPs) with lipids: tuning BCP nanostructures and transformations* (30 minutes, 3532083)

1:30 PM: **Timothy White** *Enabling functional outcomes by programming the responsivity of liquid crystalline polymer networks and elastomers via directed self assembly* (30 minutes, 3550317)

2:00 PM: **Adam Gormley** *High throughput tools to study the assembly of single-chain polymer nanoparticles* (30 minutes, 3550994)

2:30 PM: **Marina Ruths** *Textured polymer surfaces formed by self-assembly: Preparation and tribological characterization* (30 minutes, 3551810)

3:00 PM: **Rafael Verduzco** *Development of bottlebrush copolymers as surface-active additives* (30 minutes, 3534100)

3:30 PM: **Ronald Zuckermann** *Assembly of atomically defined nanostructures from sequence-defined peptoid polymers* (30 minutes, 3554103)

Self-assembly in Polymer Systems. (COLL001F)

Monday 04/12/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Tyler Odom** *Fluorescence-based study of dye-containing PEG-b-PLA block copolymer micelles upon exposure to vortexing-induced mechanical stresses* (20 minutes, 3549469)

5:20 PM: **Patrick McCauley** *Factors influencing rod formation and growth in self-assembled polymer micelles* (20 minutes, 3552167)

5:40 PM: **Juntong He** *Frank-Kasper phases of diblock copolymer melts studied with the DPD model* (20 minutes, 3555521)

6:00 PM: **Paul Hurst** *Ring-opening polymerization-induced self-assembly* (20 minutes, 3554398)

6:20 PM: **Kiat-Hwa Chan** *Mediation of co-assembly of peptides with different functionalities via a common peptide backbone* (20 minutes, 3533491)

6:40 PM: **robert ccorahua** *Organic solvent modulated self-assembly of a fibroin-like peptide $Y(GA)_4Y$ on graphite and MoS_2* (20 minutes, 3553406)

7:00 PM: **Haruka Minato** *Self-assembly of poly(N-isopropyl acrylamide)-based microgels adsorbed at the air/water interface* (20 minutes, 3547642)

7:20 PM: **Ankur Pandey** *Effect of a labile under layer on phase separation of PS-PMMA blend* (20 minutes, 3550917)

Self-assembly in Polymer Systems. (COLL001G)

Thursday 04/08/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Sarah Chapman** *Complex coacervation as a model for membraneless organelles: The effects of macromolecular crowding on the formation and behaviors of polypeptide coacervates* (20 minutes, 3552587)

1:20 PM: **Jennifer Armen** *Chemically-induced cross-linking of peptidic fibrils for scaffolding polymeric particles and macrophages* (20 minutes, 3539614)

1:40 PM: **Dana Chapman** *Orthogonal nanoprobes for one- and two-color optical super-resolution characterization of distinct nanodomains in self-assembled diblock copolymer composite thin films* (20 minutes, 3555071)

2:00 PM: **Rachel Kapelner** *Complex coacervate core micelles for protein delivery* (20 minutes, 3557787)

2:20 PM: **David Patch** *Comparison and characterization of eight in situ chemical methods to synthesize silver and copper treated cotton textiles* (20 minutes, 3557885)

2:40 PM: **Chikaodinaka Eneh** *Quantifying water-ion pair interactions in polyelectrolyte multilayers using quartz crystal microbalance with dissipation* (20 minutes, 3549594)

3:00 PM: **Raman Hlushko** *Layer-by-layer hydrogen-bonded films of linear synthetic polyphenol polymers with antioxidant activity* (20 minutes, 3554645)

3:20 PM: **Forrest Kohl** *Intersystem crossing in Ag^+ bound DNA through propeller twisting* (20 minutes, 3539500)

3:40 PM: **Jordan Brito** *All-aqueous layer-by-layer coatings of fluorinated polyelectrolytes for controllable hydrophobicity and droplet adhesion* (20 minutes, 3541659)

Self-assembly in Polymer Systems. (COLL001I)

Tuesday 04/13/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Christina Geiger** *Co-nonsolvency induced response of thin PMMA-b-PNIPAM films in mixed water/methanol vapor* (20 minutes, 3548603)

9:20 AM: **Kevin De France** *Structured cellulose nanocrystal – lysozyme composite films* (20 minutes, 3550963)

9:40 AM: **Michele Baglioni** *Selective removal of over-paintings using an environmentally friendly nanostructured fluid loaded in highly retentive hydrogels* (20 minutes, 3556111)

10:00 AM: **Edit Brodszkij** *Polymer – lipid hybrid vesicles and micelles made of poly(cholesteryl methacrylate) containing amphiphilic block copolymers* (20 minutes, 3555812)

10:20 AM: **Apostolos Vagias** *Block length asymmetry and temperature effects on the nanoscale morphology of thermoresponsive double hydrophilic block copolymers in aqueous solutions* (20 minutes, 3556509)

10:40 AM: **Deborah Beattie** *Enthalpic incompatibility between two steric stabilizer blocks provides control over the vesicle size distribution during polymerization-induced self-assembly in aqueous media* (20 minutes, 3554280)

11:00 AM: **Colette Whitfield** *DNA-polymer conjugates: Self-assembly of precision nanostructures with defined patterning* (20 minutes, 3538810)

11:20 AM: **Lucas Kreuzer** *Co-nonsolvency-type behavior of poly(sulfobetaine) and poly(N-isopropylmethacrylamide) thin films in mixed water/methanol vapor* (20 minutes, 3548659)

11:40 AM: **Shannon North** *Aqueous one-pot synthesis of well-defined zwitterionic diblock copolymers by RAFT polymerization: An efficient and environmentally-friendly route to a useful dispersant for aqueous pigments* (20 minutes, 3546206)

Self-assembly in Polymer Systems. (COLL001E)

Tuesday 04/13/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Mahesh Mahanthappa** *Complex aqueous lyotropic micelle packings of amphiphilic block oligomers* (30 minutes, 3558469)

1:30 PM: **Benjamin Doughty** *Ion-pairing controls the self-assembly of amphiphilic oligomers at liquid/liquid interfaces* (30 minutes, 3558449)

2:00 PM: **Christopher Ober** *Self-assembly as a tool in the creation of antifouling/fouling resistant coatings* (30 minutes, 3554658)

2:30 PM: **Paschalis Alexandridis** *Self-assembly of poloxamer block copolymers: From thermodynamics, to nanostructure, to function, to formulations* (30 minutes, 3552993)

3:00 PM: **J Siepmann** *Molecular simulations probing the self-assembly of diblock and triblock amphiphiles* (30 minutes, 3553105)

3:30 PM: **Keith Johnston** *Self-assembled organic dye aggregates in polymersomes with high loadings* (30 minutes, 3556930)

Self-assembly in Polymer Systems. (COLL001H)

Tuesday 04/13/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Kristin Graham** *Liquid-like assembly of cytoskeletal proteins drives actin polymerization and bundling* (20 minutes, 3550679)

5:20 PM: **Yan Wang** *Intra- and inter-chain pair correlation functions of polymeric fluids: A comparison of self-consistent polymer reference interaction site model and polymer density-functional theories* (20 minutes, 3555533)

5:40 PM: **Michelle Calabrese** *Anomalous phase formation in spherical block copolymer micelles in low-intensity magnetic fields* (20 minutes, 3557412)

6:00 PM: **Sayli Jambhulkar** *Directed assembly of layered nanoparticle/polymer structures enabled by additive manufacturing* (20 minutes, 3554929)

6:20 PM: **Gayashani Ginige** *Optimization of block copolymer self-assembly using machine learning approaches* (20 minutes, 3545562)

6:40 PM: **Liang Gao** *Growth and termination of cylindrical micelles via liquid-crystallization-driven self-assembly* (20 minutes, 3536091)

7:00 PM: **Aniruddha Deb** *Effect of vibration on spontaneous dewetting morphology, kinetics and self-assembly of thin polymer films* (20 minutes, 3555726)

7:20 PM: **Yuma Sasaki** *Self-organization of elastomer microspheres during evaporation of aqueous droplets* (20 minutes, 3549214)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003A)

Monday 04/05/2021, 5:00 PM – 8:00 PM (PDT)

5:00 PM: **Kenichi Morigaki** *Model biological membrane reconstituted in a nanometric space* (30 minutes, 3530589)

5:30 PM: **Ayane Sugimachi** *Functional reconstitution of dopamine D2 receptor into a supported model membrane in a nanometric confinement* (30 minutes, 3531757)

6:00 PM: **Yu Wenyan** *Rescuing ischemic stroke by biomimetic nanovesicles through accelerated thrombolysis and sequential ischemia-reperfusion protection* (30 minutes, 3550744)

6:30 PM: **bingbing liu** *Bioinspired nanosponge for salvaging ischemic stroke via free radical scavenging and self-adapted oxygen regulating* (30 minutes, 3550752)

7:00 PM: **Ganapathy Ayappa** *Oligomeric state transitions of pore forming toxins induce non-monotonic lipid dynamics in biomembranes* (30 minutes, 3555415)

7:30 PM: **Pradyumn Sharma** *Assessing barriers for antimicrobial penetration in complex asymmetric bacterial membranes: A case study with thymol* (30 minutes, 3538539)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003B)

Tuesday 04/06/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Felix Goni** *Long-chain fatty acyl ceramides and sphingomyelins in multicomponent lipid bilayers containing cholesterol* (30 minutes, 3535665)

9:30 AM: **Javier Hoyo** *Lipid interactions at human physiological temperature in Escherichia coli model inner membrane* (30 minutes, 3552492)

10:00 AM: **MEIFANG FU** *Non-equilibrium large-scale membrane transformations driven by MinDE biochemical reaction cycles* (30 minutes, 3538660)

10:30 AM: **Tom Robinson** *High-throughput production of surfactant-free pure-lipid biomimetic model membranes* (30 minutes, 3555694)

11:00 AM: **Mina Aleksanyan** *GM1 leaflet asymmetry stabilizes membrane pores* (30 minutes, 3555852)

11:30 AM: **Mareike Stephan** *Bacterial mimetic systems for studying bacterial inactivation and infection* (30 minutes, 3555878)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003C)

Tuesday 04/06/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Michael Schick** *Piezo1-induced membrane curvature causes raft association and alteration of the cholesterol distribution between leaflets* (30 minutes, 3540733)

1:30 PM: **Ching-Ting Tsai** *Quantitative lipid bilayers nano-platform for interrogation of curvature-sensitive BAR-family proteins* (30 minutes, 3551608)

2:00 PM: **Chih-Hao Lu** *Membrane curvature regulates the spatial distribution of the glycocalyx proteins* (30 minutes, 3551674)

2:30 PM: **Cyrus Safinya** *PEGylation of paclitaxel-loaded cationic liposomes drives a shape transition from spheres to nanodiscs and enhances delivery to human cancer cells* (30 minutes, 3550391)

3:00 PM: **Walter Paxton** *Modulating and modeling charge of hybrid lipid/polymer vesicles* (30 minutes, 3556878)

3:30 PM: **Naomi Hamada** *Characterization of hybrid lipid/block copolymer membrane phase behavior by fluorescence emission spectra* (30 minutes, 3549035)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003D)

Wednesday 04/07/2021, 9:00 AM – 11:55 AM (PDT)

9:00 AM: **Jennifer Gilbert** *Lipid sponge phase as a matrix for enzyme encapsulation: Structure and dynamics* (25 minutes, 3555737)

9:25 AM: **Miglena I. ANGELOVA** *Neurotoxicity and rheotoxicity: Membrane "mechanical toxicity" hypothesis of amyloid-β in Alzheimer's disease* (25 minutes, 3556137)

9:50 AM: **Govanna Fragneto** *Planar lipid bilayers as model biological membranes for structural neutron studies* (25 minutes, 3559258)

10:15 AM: **Karl Frewein** *Interdigitation-induced interleaflet coupling in asymmetric liposomes* (25 minutes, 3559265)

10:40 AM: **Andreas Santamaria** *Endocytosis across scales: From molecular structures to a functional process* (25 minutes, 3559735)

11:05 AM: **Stefan Knippenberg** *Conformational changes used for lipid membrane phase recognition* (25 minutes, 3532666)

11:30 AM: **Javier Hoyo** *Silver-lignin nanoparticles effect on mammalian model membranes* (25 minutes, 3552490)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003E)

Thursday 04/08/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **John Conboy** *Effect of very long chain polyunsaturated fatty acids on membrane structure and lipid flip-flop studied in model membranes* (30 minutes, 3557715)

1:30 PM: **Wade Zeno** *Electrostatic and entropic mechanisms of membrane curvature sensing by intrinsically disordered proteins* (30 minutes, 3555406)

2:00 PM: **Noah Malmstadt** *Measuring the CO_2 permeabilities of lipid bilayers as a function of cholestrol concentration in a continuous flow microfluidic mixer* (30 minutes, 3558637)

2:30 PM: **Neal Devaraj** *Peering into the lipid world* (30 minutes, 3556817)

3:00 PM: **Judith Flores** *Reconstitution of membrane proteins via oxime-mediated in situ phospholipid formation* (30 minutes, 3558557)

3:30 PM: **Roberto Brea Fernández** *Chemoselective construction of dynamic synthetic cells* (30 minutes, 3556837)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003F)

Thursday 04/08/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Marite Cardenas** *Structure of lipoproteins and their capacity for lipid exchange: Diving into the development of atherosclerosis and how to treat it* (30 minutes, 3542414)

9:30 AM: **yubexi correa** *COVID 19 symptoms severity is inversely correlated with serum cholesterol levels. Is this related to impaired function of HDL due to binding to the SARS-Cov 2 Spike protein?* (30 minutes, 3553635)

10:00 AM: **Armando Maestro** *Interaction of CoV-2 peptide responsible for fusion (S2 peptide) with mammalian membranes by neutron reflectometry* (30 minutes, 3559740)

10:30 AM: **Fernanda Leomil** *Stability of membranes containing different types of anionic lipids* (30 minutes, 3555845)

11:00 AM: **Catherine Cheu** *Small-angle scattering models for resolving detailed structures of bicelles* (30 minutes, 3550410)

11:30 AM: **Ibtihal Alahmadi** *High sensitivity DSC spectra from bicellar mixtures regarding structural transformations* (30 minutes, 3550757)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003G)

Friday 04/09/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Michael Brown** *Lipid membrane deformation revealed by solid-state ^{2}H NMR spectroscopy* (30 minutes, 3555353)

1:30 PM: **Robert Walker** *Bioaccumulation and solute reactivity in model biological membranes* (30 minutes, 3558777)

2:00 PM: **Anand Subramaniam** *Quantitative measurements of yield illuminate the mechanism of formation of giant unilamellar vesicles on nanocellulose paper* (30 minutes, 3558740)

2:30 PM: **Joseph Pazzi** *High yields of giant vesicles in physiological conditions by a modulation of ionic strength* (30 minutes, 3554450)

3:00 PM: **Alexander Li** *Ticking vesicles: Circadian oscillations inside giant vesicles* (30 minutes, 3558307)

3:30 PM: **Vaishnavi Girish** *Discovery of shear-induced fragmentation (SIF) as a mechanism that assembles GUVs from expanded lamellar phases of charged phospholipids* (30 minutes, 3558624)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003H)

Friday 04/09/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Christine Payne** *Intracellular transport of TiO2 nanoparticle-containing lysosomes* (30 minutes, 3531343)

9:30 AM: **Andreea Trache** *Downregulation of smooth muscle alpha-actin reduces contractility and interaction of vascular smooth muscle cells with the matrix* (30 minutes, 3557379)

10:00 AM: **Kasey Day** *Liquid-like protein droplets catalyze assembly of membrane vesicles* (30 minutes, 3552093)

10:30 AM: **Justin Houser** *FÃ¶rster resonance energy transfer-based sensor of steric pressure on membrane surfaces* (30 minutes, 3552268)

11:00 AM: **Chang Liu** *Modulation of lipid mobility by tuning lipid-substrate interactions* (30 minutes, 3556308)

11:30 AM: **Muthuraj Balakrishnan** *Lipid peroxidation enhances L_o/L_d domain phase separation in giant plasma membrane vesicles* (30 minutes, 3556477)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003I)

Monday 04/12/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Kalina Hristova** *pH-triggered pore-forming peptides with strong composition-dependent membrane selectivity* (30 minutes, 3537367)

9:30 AM: **Weiyue Xin** *Elastically mediated interactions between solid membrane domains in phospholipid vesicles* (30 minutes, 3556473)

10:00 AM: **Maria Santore** *How the unique features of biomembrane interfaces enable precise positioning of inclusions colloidal scale objects* (30 minutes, 3556444)

10:30 AM: **William Wimley** *Rational modulation of pH-triggered macromolecular poration by peptide acylation and dimerization* (30 minutes, 3537374)

11:00 AM: **Katelyn Duncan** *Effects of amino acids on coumarin partitioning in model biological membranes* (30 minutes, 3554225)

11:30 AM: **Michael Wilhelm** *Determination of cell membrane surface charge density by second harmonic light scattering* (30 minutes, 3553828)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003J)

Tuesday 04/13/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Teshani Kumarage** *Structural and mechanical effects of small drug molecules on model pulmonary membranes* (30 minutes, 3556016)

9:30 AM: **Rana Ashkar** *Stiffening effect of cholesterol in saturated and unsaturated phosphatidylcholine membranes* (30 minutes, 3556754)

10:00 AM: **Julie Biteen** *Single-molecule imaging of cells detecting nutrients in their local environment* (30 minutes, 3548951)

10:30 AM: **Zhan Chen** *Molecular interactions between model cell membranes and biological molecules* (30 minutes, 3548921)

11:00 AM: **Francisco Barrera** *PIP_2 promotes specific dimerization of the membrane region of the EphA2 receptor* (30 minutes, 3532426)

11:30 AM: **Haden Scott** *The transmembrane helix of pHLIP slows down membrane thickness fluctuations and translational diffusion* (30 minutes, 3549437)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics. (COLL003K)

Wednesday 04/14/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Jacob Kinnun** *Molecular structure of sphingomyelin using SANS, SAXS, and molecular dynamics* (30 minutes, 3556907)

9:30 AM: **Charles Collier** *Molecular heterogeneity and heterosynaptic plasticity in model membranes* (30 minutes, 3561815)

10:00 AM: **Maikel Rheinstadter** *Functional and functionalized membranes* (30 minutes, 3546555)

10:30 AM: **Alix Dujardin** *How did first life emerge on terrestrail planets?* (30 minutes, 3554339)

11:00 AM: **Sebastian Himbert** *Erythro-VLPs: Embedding SARS-CoV-2 spike proteins in red blood cell based proteoliposomes leads to pronounced antibody response in mouse models* (30 minutes, 3555851)

11:30 AM: **Sebastian Himbert** *Nanoscopic bending rigidity of red blood cell membranes* (30 minutes, 3556180)

Colloidal Nanoparticle Synthesis and Assembly. (COLL005A)

Thursday 04/15/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Nicholas Abbott** *Influence of illumination on solvation of metal nanoparticles* (30 minutes, 3562330)

9:30 AM: *Withdrawn* (3530851)

9:50 AM: **Yiming Wang** *Quantitative analysis of DNA-mediated formation of metal nanocrystals* (20 minutes, 3531481)

10:10 AM: **Anusha Venkataraman** *Random key generation using self-assembled nanoparticle-molecular networks* (20 minutes, 3533495)

10:30 AM: *Intermission* (10 minutes)

10:40 AM: **Ashish Kar** *Synthesis of solution stable end-to-end assemblies of gold nanorods via in-situ surface charge modulation for single molecule fluorescence enhancement at the nano-gaps* (20 minutes, 3553989)

11:00 AM: **Navyashree vasudeva** *Simplified colloidal route for preparation of nanostructured Au-Ag films with superconductivity in the ambient* (20 minutes, 3555746)

11:20 AM: **Simge Cinar** *Metallurgical approach to controlled synthesis of composite, patchy, striped and Janus particles in large scale* (20 minutes, 3555903)

11:40 AM: **Elizabeth Hopper** *Synthetic size control over plasmonic magnesium nanoparticles* (20 minutes, 3556174)

Colloidal Nanoparticle Synthesis and Assembly. (COLL005B)

Thursday 04/15/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Brian Korgel** *Colloidal synthesis of germanium nanocrystal quantum dots with size-tunable near-infrared photoluminescence* (30 minutes, 3563598)

1:30 PM: **Gregory Doerk** *Block copolymer templated assembly of functional 3D inorganic nanoarchitectures* (30 minutes, 3542669)

2:00 PM: **Wei Wang** *Interfacial nano-reactors: A new template system for controllable formation of asymmatric nanostructures* (30 minutes, 3530368)

2:30 PM: *Intermission* (10 minutes)

2:40 PM: **Adam Biacchi** *Designing colloidal magnetic nanoparticles with strong liquid-phase AC field response for thermometry and other remote sensing applications* (20 minutes, 3554221)

3:00 PM: **Jiguang Liu** *Switchable functional microspheres based on NIPAM-based polymers* (20 minutes, 3552887)

3:20 PM: **Francis Acquaye** *Photoreduction and chemical reduction of magnetic bimetallic nanoparticles* (20 minutes, 3557119)

3:40 PM: **Zhiwei Li** *Unconventional synthesis of magnetic-plasmonic hybrid nanostructures for soft actuators* (20 minutes, 3557811)

Colloidal Nanoparticle Synthesis and Assembly. (COLL005C)

Thursday 04/15/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Yadong Yin** *All-scale assembly and precise positioning of colloidal superstructures* (30 minutes, 3552103)

5:30 PM: **Rivi Ratnaweera** *Quantification of meso- and macro-scale ordering of colloidal semiconductor nanorods in the presence of AC electric fields* (20 minutes, 3557373)

5:50 PM: **Gang Chen** *The essential role of reduction potential in the seed-mediated synthesis of penta-twinned gold nanoparticles* (20 minutes, 3556194)

6:10 PM: **Christopher Sharp** *Phase control of $CuFeS_2$ nanoparticles by controlling rate in cation exchange* (20 minutes, 3558737)

6:30 PM: *Intermission* (10 minutes)

6:40 PM: **Joshua Booth** *On Particle size distributions in catalytic chain transfer emulsion polymerization: Chain-extension and the use of derived macromonomers as reactive surfactants in emulsion polymerization* (20 minutes, 3550146)

7:00 PM: **Karunamuni Silva** *Role of metal ion solubility in kinetic control of the oxidative assembly* (20 minutes, 3556610)

7:20 PM: **Emilie Ringe** *Identification of twinning in body-centred cubic and tetragonal nanoparticles* (20 minutes, 3556019)

Colloidal Nanoparticle Synthesis and Assembly. (COLL005D)

Friday 04/16/2021, 9:00 AM – 11:50 AM (PDT)

9:00 AM: **Demet Asil** *Donor-acceptor type bulk nano-heterojunction solar cell designs based on electronically coupled PbSe nanorods and quantum dots* (20 minutes, 3543685)

9:20 AM: **Joshua Kays** *Exploring the oxidation and optical properties of bornite nanocrystals* (20 minutes, 3555193)

9:40 AM: **Rong Ma** *Graphene quantum dots fuctionalized with zwitterionic structure used as surfactant* (20 minutes, 3554212)

10:00 AM: **Devika Gireesan Sudha** *Frank elasticity driven gelation and aging of self-assembled hollow colloids* (20 minutes, 3552411)

10:20 AM: *Intermission* (10 minutes)

10:30 AM: **Nathan Burrows** *Tuning the dielectrophoretic assembly of dielectric particles through surface functionalization* (20 minutes, 3552313)

10:50 AM: **Petr Kral** *Atomistic modeling of nanoparticles lattices formed at surfaces and bulks of liquids* (20 minutes, 3550703)

11:10 AM: **SUN PAN** *Free thiols regulate the interactions and self-assembly of thiol-passivated metal nanoparticles* (20 minutes, 3530142)

11:30 AM: **Andrew Nelson** *Thermodynamically stable dispersed solids: Interfacial free energy-particle size distribution correspondence and the limiting polydispersity* (20 minutes, 3557216)

Colloidal Nanoparticle Synthesis and Assembly. (COLL005E)

Friday 04/16/2021, 1:00 PM – 3:50 PM (PDT)

1:00 PM: **Zhenda Lu** *High-resolution combinatorial patterning of functional nanoparticles* (20 minutes, 3558477)

1:20 PM: **Joong Bum Lee** *Single colloidal gold nanoparticle arrays via template dissolution interfacial patterning* (20 minutes, 3549215)

1:40 PM: **Sandra Atehortua Bueno** *Design and facile syntheses of Pd-Sn nanocatalysts with phase, size, and shape control for formic acid electrooxidation* (20 minutes, 3552344)

2:00 PM: **Junyoung Jin** *PbS quantum dot photoconductors with rapid thermal annealing in air* (20 minutes, 3555818)

2:20 PM: *Intermission* (10 minutes)

2:30 PM: **John Crockett** *Plasmonic detection of mercury via amalgamation on gold nanorods coated with PEG-thiol* (20 minutes, 3557243)

2:50 PM: **Florent VOISIN** *Quench assembly of gold nanoparticles with quaternized chitosan* (20 minutes, 3550895)

3:10 PM: **Claudio Cappelletti** *$Pt^{(0)}$-containing metallosupramolecular polymers as precursors for nanoparticle composites* (20 minutes, 3550881)

3:30 PM: **Beverly Briggs Penland** *Pd nanoparticles on high-apect-ratio Au nanorods via peptide functionalization* (20 minutes, 3554140)

Colloidal Hybrid Materials Intended for Biological Applications. (COLL007A)

Wednesday 04/14/2021, 5:00 PM – 7:20 PM (PDT)

5:00 PM: **Xuefei Huang** *Effective atherosclerotic plaque inflammation inhibition with targeted drug delivery by hyaluronan conjugated atorvastatin nanoparticles* (20 minutes, 3531548)

5:20 PM: **Andrij Pich** *Stimuli-responsive microgels with supramolecular crosslinks* (20 minutes, 3533405)

5:40 PM: **Erik Reimhult** *Protein corona formation on polymer-grafted nanoparticles probed with ITC shows the superiority of cyclic polymer brushes* (20 minutes, 3535518)

6:00 PM: **Fang Chen** *Liposome-aided direct delivery of magnetic nanoparticles into cytosol* (20 minutes, 3543172)

6:20 PM: **Bon Il Koo** *Multilamellar hybrid nanovesicles via protein-induced self-assembly of unilamellar lipid vesicles* (20 minutes, 3548514)

6:40 PM: **Sumaiya Soha** *Application of metal-enhanced fluorescence for imaging of biological systems* (20 minutes, 3546390)

7:00 PM: **Jae Chul Park** *Catalytic self-assembly of DNA hydrogel for enzyme-free femtomolar DNA assay* (20 minutes, 3549095)

Colloidal Hybrid Materials Intended for Biological Applications. (COLL007B)

Thursday 04/15/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Federica Sebastiani** *Can mRNA - lipid nanoparticle surface composition regulates apolipoprotein binding from serum?* (20 minutes, 3549333)

9:20 AM: **Carola Kryschi** *X-ray responsive Fe_3O_4-Au nanotherapeutics for synergistic cancer therapies* (20 minutes, 3541640)

9:40 AM: **Jeffrey Wang** *Intracellular delivery of cryoprotective intrinsically disordered proteins with single-walled carbon nanotubes* (20 minutes, 3551236)

10:00 AM: **Carina Ade** *Enzyme mimics in polymeric micelles as artificial organelles* (20 minutes, 3547705)

10:20 AM: **Melanie Schmidt** *Synthesis of thermoresponsive hyaluronic acid functionalized microgels for the control of cell adhesion* (20 minutes, 3551675)

10:40 AM: **Elad Deiss-Yehiely** *Stimuli-responsive, hydrolysable layer-by-layer nanoparticles enhance biofilm penetration* (20 minutes, 3550125)

11:00 AM: **Xiangyang Shi** *Dendrimer-entrapped gold nanoparticles for gene silencing-mediated immune checkpoint blockade to boost tumor therapy* (20 minutes, 3553174)

11:20 AM: **Alexander Banger** *Amphiphilic glycomacromolecules: self-assembly properties and lectin binding in dependence of their monomer sequence* (20 minutes, 3553826)

11:40 AM: **Frank Vukaj** and **Chase Rogers** *Characterizingthe antimicrobial effectiveness of Ag-TiO_2 and Cu-TiO_2 nanoparticles immobilized within a hydrogel matrix utilizing an epifluorescence optical tweezer* (20 minutes, 3554136)

Colloidal Hybrid Materials Intended for Biological Applications. (COLL007C)

Thursday 04/15/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Suzanne Giasson** *Enhanced swelling using photothermal responsive surface-immobilized microgels* (20 minutes, 3554457)

1:20 PM: **Ofer Prinz Setter** *Halloysite nanotubes for targeting bacterial cells* (20 minutes, 3554192)

1:40 PM: **Md Nafiujjaman** *Biodegradable hollow manganese silicate nanocomposites to alleviate tumor hypoxia toward enhanced photodynamic therapy* (20 minutes, 3555093)

2:00 PM: **Rachel Lee** *Ultrasmall colloidal hybrid materials for super-resolution assistant ratiometric sensing* (20 minutes, 3552301)

2:20 PM: **Indrajit Srivastava** *Bioimicry-inspired & deep-learning enabled nanoplatform for intraoperative fluorescence-guided cancer surgery* (20 minutes, 3555549)

2:40 PM: **Magdalena Szota** *PAMAM dendrimers as nanocarriers for 5-fluorouracil: effectiveness of complex formation and cytotoxicity studies* (20 minutes, 3536297)

3:00 PM: **Bushra Zafar** *Metal nanoparticles meet multilayer capsules: Pros and contras of pre-loading and post-coating approaches* (20 minutes, 3555912)

3:20 PM: **Catarina Fernandes** *Polyanionic nanoparticles and their interaction with fatty hepatocytes* (20 minutes, 3554286)

3:40 PM: **David Ng** *Synthesis of precise polymeric nano-objects guided by biomolecular interfaces* (20 minutes, 3555935)

Colloidal Hybrid Materials Intended for Biological Applications. (COLL007D)

Friday 04/16/2021, 9:00 AM – 11:40 AM (PDT)

9:00 AM: **Christian C** *Degradable poly(carbonate)-nanogels for focused delivery of immune stimulatory small molecules to draining lymph nodes* (20 minutes, 3556467)

9:20 AM: **Evan Mueller** *Exploring the role of hydrophobic modification for generating enhanced photoacoustic responses from silica coated gold nanorods* (20 minutes, 3552202)

9:40 AM: **Caroline de Gracia Lux** *Nanodroplet vaporization without ultrasound as a new theranostic platform* (20 minutes, 3557087)

10:00 AM: **Muzahidul Anik** *Protein-templated raspberry gold nanostructures as a multimodal platform for intracellular plasmonic imaging, ROS sensing and photothermal therapy* (20 minutes, 3555997)

10:00 AM: **Animesh Pan** *Protein-templated raspberry gold nanostructures as a multimodal platform for intracellular plasmonic imaging, ROS sensing and photothermal therapy* (20 minutes, 3555997)

10:20 AM: **Lydia Makotamo** *Exploring the potential of silica-based nanoparticles as hosts for chemical exchange saturation transfer (CEST) agents in molecular magnetic resonance imaging (MRI)* (20 minutes, 3557138)

10:40 AM: **Ian Deninger** *Development of polymer nanocomposite electrode for enhanced mediator-less electron transfer in microbial fuel cells* (20 minutes, 3554176)

11:00 AM: **Nguyen TK Thanh** *The synergistic effect of alternating magnetic field mediated thermo-chemotherapy with doxorubicin loaded dual pH- and thermo-responsive magnetic nanocomposite carriers: An in vitro study* (20 minutes, 3557731)

11:20 AM: **Jingyi Xue** *Structural and physicochemical properties of hydrophobically-modified phytoglycogen nanoparticles and its potential applications* (20 minutes, 3553149)

Colloidal Hybrid Materials Intended for Biological Applications. (COLL007E)

Friday 04/16/2021, 1:00 PM – 2:20 PM (PDT)

1:00 PM: **Eric Zhang** *Expanding the colloidal toolkit for optogenetics and x-ray active nanoparticles* (20 minutes, 3557944)

1:20 PM: **Stephanie Pearlman** *Improving visual assessment of sputum smear microscopic diagnosis of M. tuberculosis using high-gradient magnetic enrichment and induced droplet Marangoni flows* (20 minutes, 3555552)

1:40 PM: **Devleena Samanta** *Colloidal protein spherical nucleic acids for live-cell chemical analysis* (20 minutes, 3558351)

2:00 PM: **Wolfgang Parak** *Quantifying the interaction of colloidal nanoparticles with biological environment* (20 minutes, 3561217)

Macromolecular Design of (bio) Energy Materials and Safety Evaluation. (COLL009A)

Monday 04/05/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: *Introductory Remarks* (10 minutes)

9:10 AM: **Dan Bai** *Phase-pure [X-NA]+ biohybrid film as hole-transport material* (30 minutes, 3553639)

9:40 AM: **Sajid Liu** *Synthesis, characterization, and application of interactive nanomaterials* (30 minutes, 3552959)

9:40 AM: **Jingbo Liu** *Synthesis, characterization, and application of interactive nanomaterials* (30 minutes, 3552959)

10:10 AM: **Sajid Liu** *Biosafety of nanoparticles* (20 minutes, 3558742)

10:30 AM: **Sajid Liu** *Clean coal techniologies: The next five years: Policy and practice* (20 minutes, 3558774)

10:50 AM: *Intermission* (10 minutes)

11:00 AM: **Shawn Mulvaney** *Actuating biology via protonics* (30 minutes, 3562869)

11:30 AM: *Discussion* (15 minutes)

11:45 AM: *Discussion* (15 minutes)

Macromolecular Design of (bio) Energy Materials and Safety Evaluation. (COLL009B)

Monday 04/05/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: *Introductory Remarks* (5 minutes)

1:05 PM: **Sajid Liu** *Government-Academia Discussion Panel 1* (120 minutes, 3568464)

1:05 PM: **Shawn Mulvaney** *Government-Academia Discussion Panel 1* (120 minutes, 3568464)

3:05 PM: *Discussion* (55 minutes)

Macromolecular Design of (bio) Energy Materials and Safety Evaluation. (COLL009C)

Monday 04/05/2021, 5:00 PM – 8:00 PM (PDT)

5:00 PM: *Introductory Remarks* (5 minutes)

5:05 PM: **Sajid Liu** *Government-Academia Discussion Panel 2* (120 minutes, 3568466)

5:05 PM: **Shawn Mulvaney** *Government-Academia Discussion Panel 2* (120 minutes, 3568466)

7:05 PM: *Discussion* (55 minutes)

Industry-Academia Dialogue. (COLL011A)

Tuesday 04/06/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Kathleen Stebe** and **Matthew Lynch** *Industry-academe dialogue* (180 minutes, 3563970)

Nanomaterials. Controlled Synthesis and Assembly of Colloidal Nanomaterials For Function I (COLL012A)

Monday 04/12/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Sandra Rosenthal** *Symmetric shelled quantum dots for applications in neuroscience* (30 minutes, 3558936)

1:30 PM: **Haimei Zheng** *In situ liquid phase electron microscopy imaging of nanocrystal transformations* (30 minutes, 3559429)

2:00 PM: **Sohee Jeong** *Atomically tailored single-crystalline III-V tetrapods* (30 minutes, 3555685)

2:30 PM: **Zeger Hens** *Extended nucleation and superfocusing in colloidal semiconductor nanocrystal synthesis* (30 minutes, 3555621)

3:00 PM: **Kim Youngsik** *Facet-specific tailored growth in colloidal InP nanocrystals: (110) vs (111)* (20 minutes, 3542972)

3:20 PM: **Benjamin Diroll** *Surface chemistry modifies band edge structure of colloidal quantum wells* (20 minutes, 3550781)

3:40 PM: **Tamar Goldzak** *Colloidal CdSe nanocrystals are inherently defective* (20 minutes, 3556291)

Nanomaterials. Controlled Synthesis and Assembly of Colloidal Nanomaterials For Function II (COLL012B)

Tuesday 04/13/2021, 9:00 AM – 11:50 AM (PDT)

9:00 AM: **Sara Skrabalak** *Synthesis of crystals with different hierarchies* (30 minutes, 3549217)

9:30 AM: **Cherie Kagan** *Designing optical metamaterials from colloidal Au nanocrystal assemblies* (30 minutes, 3554728)

10:00 AM: **Raffaella Buonsanti** *Colloidal synthesis, mechanistic studies and catalytic applications of Cu-based nanocrystals* (30 minutes, 3553445)

10:30 AM: **Jordan Cox** *Synthesis and characterization of novel silver nanoparticle-zinc oxide hybrid nanomaterials for adsorption and photocatalysis of Congo red dye pollutant* (20 minutes, 3554661)

10:50 AM: **Lynn Krushinski** *Superparamagnets for magnetic hyperthermia applications* (20 minutes, 3553154)

10:50 AM: **Mary Devadas** *Superparamagnets for magnetic hyperthermia applications* (20 minutes, 3553154)

11:10 AM: **Christina Boukouvala** *Shape and plasmonic response of twinned magnesium nanoparticles: A theoretical study* (20 minutes, 3556093)

11:30 AM: **Emily Eikey** *Controlling atom arrangement in ternary metal chalcogenide nanoparticles using precursor oxidation state* (20 minutes, 3557022)

Nanomaterials. Colloidal Nanomaterials for Optoelectronics: Structure-Property Relationships (COLL012C)

Monday 04/12/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Caitlin McGranahan** *Bidirectional excited-state charge-transfer and extended charge separation within covalently-tethered type-II CdSe/CdTe quantum dot heterostructures: Colloidal and multilayered systems* (20 minutes, 3557676)

5:20 PM: **Arianna Rothfuss** *Heterostructures of cadmium chalcogenide quantum dots and MoS_2 nanoplatelets prepared by linker-assisted assembly: Influence of ligand properties on excited-state charge transfer and photocatalysis* (20 minutes, 3556615)

5:40 PM: **Fiaz Ahmed** *Single solvent based p-type and n-type PbS quantum dot inks for solution processable optoelectronics* (20 minutes, 3553295)

6:00 PM: **Tyler McCrea** *Application of colloidal PbSe quantum dots for room temperature gamma ray spectroscopy* (20 minutes, 3548378)

6:20 PM: **Tong Cai** *Colloidal synthesis of manganese and ytterbium codoped cesium lead halide perovskite nanocrystals for luminescent solar concentrator application* (20 minutes, 3534179)

6:40 PM: **Jennifer Empey** *Size-dependent dynamics of photogenerated charges in cerium oxide nanoparticles* (20 minutes, 3557808)

7:00 PM: **Nasir Javed** *Elucidation of the structure and origin of photoluminescence from carbon dots* (20 minutes, 3550688)

7:20 PM: **Lewis Johnson** *Modeling surface effects on hybrid organic nanophotonic performance* (20 minutes, 3558799)

Nanomaterials. Nanostructure Assembly and Crystallization Processes (COLL012D)

Tuesday 04/13/2021, 5:00 PM – 8:00 PM (PDT)

5:00 PM: **Cindy Berrie** *Fabrication and characterization of precisely tunable hybrid nanostructures* (20 minutes, 3557330)

5:20 PM: **Henry Shulevitz** *Scalable self assembly of non-uniform quantum emitters* (20 minutes, 3538099)

5:40 PM: **Meng Jia** *Versatile strategy for controlled assembly of plasmonic metal/semiconductor hemispherical nano-heterostructure arrays* (20 minutes, 3552874)

6:00 PM: **Ian Echols** *Layer-by-layer assembly of pH-responsive polycation/$Ti_3C_2T_z$ multilayers for use as resistive sensors* (20 minutes, 3552215)

6:20 PM: **Ho Fung Cheng** *Colloidal crystal engineering using electron equivalents with defined valency* (20 minutes, 3533068)

6:40 PM: **Simona Hunyadi Murph** *Shape-selective mesoscale nanoarchitectures* (20 minutes, 3557224)

7:00 PM: **Kenshiro Honda** *Ellipsoidal microgels that form one-dimensional assemblies during the evaporation of dispersion droplets* (20 minutes, 3548573)

7:20 PM: **Ekaterina Dolgopolova** *Controlled growth of metal-organic frameworks in gels* (20 minutes, 3553333)

7:40 PM: **Hiral Patel** *Use of engineered nucleation features for improved protein crystallization* (20 minutes, 3556766)

Nanomaterials. Colloidal Nanomaterials for Biological Applications (COLL012E)

Tuesday 04/13/2021, 1:00 PM – 3:40 PM (PDT)

1:00 PM: **Liudmyla Storozhuk** *Engineering approach to reduce iron oxide nanoparticles sizes for MRI T_1 contrast agents* (20 minutes, 3557419)

1:20 PM: **Lavinia Trifoi** *Photoactivation of fluorescence of a hybrid metal organic framework-dye composite* (20 minutes, 3549367)

1:40 PM: **Lei Zhou** *Specific "Switch-on" type magnetic resonance nanoprobe with distance-dominate property for high resolution imaging of tumors* (20 minutes, 3550751)

2:00 PM: **Indrajit Srivastava** *Connecting the dots in carbon dots: Unraveling their photoluminescence mechanisms for biological applications* (20 minutes, 3552967)

2:20 PM: **Salimar Cordero** *Quantification of changes in nanoparticle hydrophobicity induced by sulfidation and acquisition of natural organic matter corona* (20 minutes, 3553251)

2:40 PM: **Maha Alafeef** *RNA-extraction-free nano-amplified colorimetric test for clinical diagnosis of COVID-19* (20 minutes, 3558416)

3:00 PM: **Asli Celebioglu** *Ibuprofen/cyclodextrin inclusion complex nanofibers for fast dissolving oral drug delivery system* (20 minutes, 3552705)

3:20 PM: **Yu Hsin Tsai** *Visible light active titanium dioxide nanoparticles for bacterial biofilm treatment* (20 minutes, 3552286)

Nanomaterials. 2D Nanomaterials (COLL012F)

Wednesday 04/14/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Pieter Schiettecatte** *Thermodynamic perspective on liquid phase exfoliation of two dimensional van der Waals solids* (20 minutes, 3548535)

5:20 PM: **Christopher Sims** *Analysis of 2D material dispersions partitioned by differential sedimentation using analytical ultracentrifugation* (20 minutes, 3552277)

5:40 PM: **Mustafa Karaman** *Pressure sensitive nano-adhesive films through chemical vapor deposition : A novel tool for the transfer of large-area graphene* (20 minutes, 3554864)

6:00 PM: **Yuqi Guo** *Exfoliation of boron carbide into ultrathin nanosheets* (20 minutes, 3549492)

6:20 PM: **Giovanna Poggi** *Grafted nanocellulose for the conservation of works of art: Synthesis, characterization and interactions with alkaline nanoparticles* (20 minutes, 3555880)

6:40 PM: **Zhe Yuan** *Direct chemical vapor deposition synthesis of porous single-layer graphene membranes with high gas permeances and selectivities* (20 minutes, 3557178)

7:00 PM: **Bukuru Anaclet** *Molecular doping of two-dimensional materials through self-assembled monolayers* (20 minutes, 3531541)

7:20 PM: **Sayli Jambhulkar** *Aligned micropatterning of MXene into 3D printed nanostructures via layer-by-layer assembly* (20 minutes, 3553188)

Nanomaterials. Carbon Nanotubes, Polymers and Small Molecules: Hybrids, Processing and Functionalization (COLL012G)

Thursday 04/15/2021, 5:00 PM – 7:20 PM (PDT)

5:00 PM: **Christopher Sims** *Determining single-wall carbon nanotube partition conditions in aqueous two-polymer phase extraction with near infrared fluorescence spectroscopy* (20 minutes, 3552281)

5:20 PM: **Januka Budhathoki-Uprety** *Development of hybrid nanomaterials of polymers and carbon nanotubes* (20 minutes, 3555277)

5:40 PM: **Nicole Rice** *Excess polymer in single-walled carbon nanotube thin-film transistors: Does it really need to be removed prior to fabrication?* (20 minutes, 3555619)

6:00 PM: **Jeffrey Fagan** *Determining the packing density of a linear alkane inside a single-wall carbon nanotube using colloidal methods* (20 minutes, 3556810)

6:20 PM: **Muhammad Anas** *Universal patterns of radio frequency heating of carbon nanomaterials and composites* (20 minutes, 3552204)

6:40 PM: **Rina Adhikari** *Incorporating thermally stable ligands into hierarchically porous carbon to study the stability using EPR.* (20 minutes, 3553004)

7:00 PM: **Viney Ghai** *Ultra-dark flower carbon nanotubes for passive camouflage* (20 minutes, 3552524)

Nanomaterials. Controlled Synthesis and Assembly of Colloidal Nanomaterials For Function III (COLL012H)

Wednesday 04/14/2021, 1:00 PM – 3:00 PM (PDT)

1:00 PM: **Marco Molinari** *Modelling the evolution of cerium oxide nanoparticle morphology in the presence water, carbon dioxide and hydrogen peroxide* (20 minutes, 3554377)

1:20 PM: **Prawal Agarwal** *Effect of perfluoro-based plasma-enhanced chemical vapor deposition on nanoenergetics of aluminum particles* (20 minutes, 3551647)

1:40 PM: **Hoa Phan** *Exploiting microporous silica membranes for plasmonics and SERS* (20 minutes, 3543056)

2:00 PM: **Sayantan Mahapatra** *Exploring chemistry of surface-supported nanostructures at the Angstrom scale using ultrahigh vacuum tip-enhanced Raman spectroscopy* (20 minutes, 3554556)

2:20 PM: **Nathalie Milbrandt** *Magnetic particle spectrometry approach for studying lead chelating agents* (20 minutes, 3530832)

2:40 PM: **Yifeng Huo** *Novel anti-counterfeiting labels based on plasmonic colloidal gold nanostars* (20 minutes, 3551850)

Surface Chemistry. Surface Functionalization, Surfactants, and Mesoporous Media (COLL014A)

Wednesday 04/14/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Diana Al Husseini** *All-nanoparticle surface functionalization for mid-infrared on-chip sensing* (20 minutes, 3531198)

9:20 AM: **Jari Leemans** *Acid-base mediated ligand exchange on enar-infrared absorbing in-based colloidal quantum dots* (20 minutes, 3548550)

9:40 AM: **steven guillen** *Experimental and computational studies of MIL-88B(Fe) on COOH-terminated functionalized gold surfaces* (20 minutes, 3544539)

10:00 AM: **Sean Mcdermott** *Passing-through surface-initiated polymerization on a rubber substrate: Supplying monomer from swollen substrates* (20 minutes, 3544223)

10:20 AM: **Dilip Paul** *Investigation of the acid-base behavior of MCM-41 mesoporous nanoparticles: An in situ FT-IR study* (20 minutes, 3552607)

10:40 AM: **Andrei Jitianu** *Influence of the processing of the melting gels coatings over the corrosion protection of the AZ31B magnesium alloy* (20 minutes, 3557925)

11:00 AM: **Markus Hoffmann** *Dynamic nuclear polarization enhanced NMR study of nonionic surfactants confined in mesoporous materials* (20 minutes, 3542666)

11:20 AM: **Clemens Richter** *Surfactant properties of phenol in aqueous solutions studied by valence photoelectron spectroscopy* (20 minutes, 3553833)

11:40 AM: **Rupom Bhattacherjee** *Functionalizing glass micromodels with illite clay: Effect of salinity and heat treatment* (20 minutes, 3557710)

Surface Chemistry. Adsorption, Bonding, and Biosurfaces (COLL014B)

Thursday 04/15/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Lisa Miller** *Surface-bound antibiotics for the detection of Î²-lactamases* (20 minutes, 3538799)

9:20 AM: **Seth Croslow** *Study of insulin aggregation using Langmuir monolayers and Brewster angle microscopy* (20 minutes, 3550380)

9:40 AM: **Mette Rasmussen** *The surface chemistry of snake slithering locomotion* (20 minutes, 3553686)

10:00 AM: **Aleksandra Ivanova** *Simultaneous sonochemical functionalization of urinary catheters with biofilm matrix degrading amylase and antibacterial zinc oxide nanoparticles for prevention of bacterial infections* (20 minutes, 3553962)

10:20 AM: **Saeed Behzadinasab** *Cu_2O surface coating that rapidly inactivates the SARS-CoV-2 virus* (20 minutes, 3554292)

10:40 AM: **Esther Frederick** *Forming direct Boron-si bonds on Si(100) using solution-phase surface chemistry* (20 minutes, 3536803)

11:00 AM: **Avinash Both** *Insight into the surface induced growth of xenon hydrate film on mica at sub-zero temperatures* (20 minutes, 3552780)

11:20 AM: **Darren Achey** *Changes to intramolecular reactivity imparted by interfacial adsorption of azobenzene derivatives to ZrO_2 nanoparticle thin films* (20 minutes, 3554428)

11:40 AM: **David Wisman** *Tailoring the redox capabilities of organic ligands for metal-ligand coordination with vanadium single-sites* (20 minutes, 3554400)

Surface Chemistry. Reactions at Surfaces (COLL014C)

Thursday 04/15/2021, 5:00 PM – 8:00 PM (PDT)

5:00 PM: **Joachim Paier** *Partial oxidation of methanol on the (111) surface of magnetite* (20 minutes, 3548740)

5:20 PM: **Jason Adams** *Solvent molecules form surface redox mediators in situ and cocatalyze O_2 reduction on Pd* (20 minutes, 3549830)

5:40 PM: **Yu Yan** *Selective hydrogenation of crotonaldehyde over a PdSn catalyst: A first-principles study* (20 minutes, 3555011)

6:00 PM: **Daniel Rodriguez** *High temperature O_2 oxidation on individual graphite and silicon nanoparticles* (20 minutes, 3546563)

6:20 PM: **Petra Reinke** *Competing reaction pathways in the oxidation of Ni-Cr and Ni-Cr-W alloy surfaces* (20 minutes, 3558047)

6:40 PM: **William Kaden** *Exploring environmental impacts on the chemistry of ternary Si-O-Al sites present at the interface of single-crystalline, bilayer, thin-film silicates.* (20 minutes, 3557872)

7:00 PM: **Andrew Gellman** *Structure sensitive chiral surface chemistry: Enantioselectivity on chiral surfaces* (20 minutes, 3556996)

7:20 PM: **Hui Zhang** *Ambient pressure mapping of resonant auger spectroscopy at BL02B of SSRF and preliminary results* (20 minutes, 3555556)

7:20 PM: **Yi Yu** *Ambient pressure mapping of resonant auger spectroscopy at BL02B of SSRF and preliminary results* (20 minutes, 3555556)

7:40 PM: **Steven Tait** *Metal-ligand complexation at model surfaces and on high-surface-area oxide supports* (20 minutes, 3564054)

Surface Chemistry. Solution-solid Interfaces (COLL014D)

Wednesday 04/14/2021, 1:00 PM – 3:30 PM (PDT)

1:00 PM: **shammi rana** *STM investigation of the $Y[C_6SPc]_2$ and $Y[C_4OPc]_2$ complex at the solution–solid interface: Substrate effects, submolecular resolution, and vacancies* (20 minutes, 3549825)

1:20 PM: **Kristen Johnson** *Affinity and cooperativity of reversible ligand binding to Co(II) porphyrin receptors at the solution/solid interface* (20 minutes, 3555165)

1:40 PM: **Paulina Komorek** *Adsorption behavior of lysozyme at solid/liquid interface studied by QCM-D, MP-SPR, and FTIR* (20 minutes, 3534437)

2:00 PM: *Intermission* (10 minutes)

2:10 PM: **Sarah Brown** *STM studies of atomic hydrogen's reaction with alkanethiolate self-assembled monolayers as a function of temperature and chain length* (20 minutes, 3557366)

2:30 PM: **Monika Poonia** *Electromigration of charged molecules in solution for highly intense surface enhanced Raman scattering* (20 minutes, 3557315)

2:50 PM: **Sushobhan Pradhan** *Effect of wettability on pressure-driven bubble nucleation in oil-water system* (20 minutes, 3558461)

3:10 PM: **Blake Hudson** *Modeling surface and media dependent factors of Cu from nano agriculture materials* (20 minutes, 3556822)

Surface Chemistry. Ionic Liquids, Gas-Liquid Interfaces, and Liquid-Liquid Interfaces (COLL014E)

Thursday 04/15/2021, 1:00 PM – 3:30 PM (PDT)

1:00 PM: **De Li** *Effects of halide contaminants on the lubricating properties of phosphonium phosphate ionic liquid* (20 minutes, 3551852)

1:20 PM: **Filippo Mangolini** *Surface adsorption and nanotribology of phosphonium phosphate ionic liquid on iron surfaces: A combined atomic force microscopy and surface spectroscopic study* (20 minutes, 3553999)

1:40 PM: **Md Iqbal Hossain** *The effect of dilution on free charge density gradients in room temperature ionic liquids (RTILs)* (20 minutes, 3547913)

2:00 PM: **James Pickering** *Fatty acids on seawater surfaces: Applications to sea spray aerosol chemistry* (20 minutes, 3554181)

2:20 PM: *Intermission* (10 minutes)

2:30 PM: **Tehseen Adel** *Observing simple anion behavior near the air/aqueous interface from ionizing surface potential measurements of electrolyte solutions* (20 minutes, 3555037)

2:50 PM: **lu lin** *Tuning the self-assembled structure of ionic oligomers at buried liquid/liquid interfaces using aqueous phase ions* (20 minutes, 3556073)

3:10 PM: **Xianyuan Zhao** *Measuring the competition between counterions for cationic surfactants at liquid surfaces* (20 minutes, 3558675)

Surface Chemistry. Reactions, Growth, and Dynamics at Surfaces (COLL014F)

Friday 04/16/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Laura Kesner** *Fluorescence spectroscopy to measure the impact of nanoparticle and membrane characteristics on membrane phase change due to nanoparticle-membrane interactions* (20 minutes, 3556706)

9:20 AM: **Gabrielle Langlois** *Investigating particle-particle interactions between natural organic matter and nanoparticles on the photochemical inactivation of MS2 bacteriophage* (20 minutes, 3550514)

9:40 AM: **Parvin Alaee** *Effect of hydrophobicity and size of silica nanoparticles on rheological response of polyethylene glycol nanofluids* (20 minutes, 3557711)

10:00 AM: **Diamond Jones** *Mechanistic study of the secondary cation release from* $Li(Ni_{1/3}Mn_{1/3}Co_{1/3})O_2$ (20 minutes, 3549772)

10:20 AM: **Maria Pilar de Lara-Castells** *First principles modelling of TiO_2-supported subnanometer-sized metal clusters: From clean energy sources to 2D polaronic materials* (20 minutes, 3557869)

10:40 AM: **Eduardo González-Martínez** *Fabrication of microstructured electrodes via electroless metal deposition onto polydopamine-coated polystyrene substrates and thermal shrinking* (20 minutes, 3555456)

11:00 AM: **Michael Clark** *Charge-transfer dynamics at photosensitizer-semiconductor interfaces* (20 minutes, 3557785)

11:20 AM: **Sergio Tosoni** *Computational characterization of single-atom species on metal-supported oxide thin films* (20 minutes, 3532370)

11:40 AM: **Robert Szoszkiewicz** *Surface-bound and volatile Mo oxides produced during oxidative etching of single microscale 2H MoS_2 flakes in air and their oxidation at high relative humidity* (20 minutes, 3555908)

Biomaterials and Biointerfaces. (COLL016A)

Monday 04/05/2021, 9:00 AM – 11:30 AM (PDT)

9:00 AM: **Dimitri Wilms** *Temperature switchable adhesion of E.coli to mannose functionalized microgel layers* (20 minutes, 3550868)

9:20 AM: **Mikkel Bregnhøj** *Ice-nucleating proteins at interfacial lipid monolayers* (20 minutes, 3553667)

9:40 AM: **Paul Van Tassel** *Polyelectrolyte-based biomaterials: Influence on protein structural stability* (30 minutes, 3551791)

10:10 AM: **Giovanni Spiaggia** *Microfluidic spinning as a facile method to fabricate ligament like extracellular matrix model* (20 minutes, 3548632)

10:30 AM: **Samuel Lenton** *The impact of arginine-phosphate interactions on the reentrant condensation of the intrinsically disordered histatin 5 protein* (20 minutes, 3553483)

10:50 AM: **Thaddeus Golbek** *Observing biomolecules at three-dimensional lipid interfaces* (20 minutes, 3551659)

11:10 AM: **Aaron Lee** *NanoRoomba: Designer particle surfaces for guiding cellular behavior* (20 minutes, 3551644)

Biomaterials and Biointerfaces. (COLL016B)

Wednesday 04/07/2021, 9:00 AM – 11:20 AM (PDT)

9:00 AM: **Lars Schmüser** *Binding structure of the human salivary protein statherin on hydroxyapatite determined by sum frequency generation spectroscopy and molecular dynamics simulations* (20 minutes, 3553752)

9:20 AM: **Paula de Dios** *Intestinal cell model based on a paper chip* (20 minutes, 3552467)

9:40 AM: **Kathryn Murray** *Cryopreservation of mesenchymal stromal (stem) cells enabled by synthetically scalable polyampholytes* (20 minutes, 3553633)

10:00 AM: **Stephan Schmidt** *Capture and release of cells via glycocalyx mimetic hydrogels* (20 minutes, 3538753)

10:20 AM: **järvi Spanjers** *Cell membrane vesicles to mediate the adhesion between artificial cells and HepG2 cells* (20 minutes, 3548171)

10:40 AM: **Fani Madzharova** *Probing protein and water structure at threonine-rich sites with vibrational sum-frequency generation (SFG) spectroscopy* (20 minutes, 3549291)

11:00 AM: **Barbara Jachimska** *Structure and function of protein corona on the dendrimer surface* (20 minutes, 3554552)

Biomaterials and Biointerfaces. (COLL016C)

Monday 04/05/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Shambojit Roy** *Non genetic modification of breast cancer cells can induce quiescence through anti EGFR photoconjugating affibodies* (20 minutes, 3536311)

5:20 PM: **Mahmoud Amr** *3D printable hydrogels with tunable mechanical properties for tissue engineering* (20 minutes, 3550462)

5:40 PM: **Jay Kitt** *Lipid-modified silica nanoparticles for investigating antibody-ligand interactions at bilayers with optical-trapping confocal Raman microscopy* (20 minutes, 3557952)

6:00 PM: **Mohiuddin Quadir** *PEGylated poly (carbonate) as suitable platforms for pH-responsive biomaterials* (20 minutes, 3555438)

6:20 PM: *Withdrawn* (3532955)

6:40 PM: **Jayeeta Bhaumik** *Lignin valorization via its efficient conversion into functional materials* (20 minutes, 3543309)

7:00 PM: **Jagabandhu Sahoo** *Achieving gram selectivity of mixed charge MoS_2 nanosheets by tuning the balance of surface charge* (20 minutes, 3553647)

7:20 PM: **Jicheng Dong** *Controlling immobilized antibody at the molecular level for active targeting nanoparticles toward HER2 positive cancer cells* (20 minutes, 3552441)

Biomaterials and Biointerfaces. (COLL016D)

Monday 04/05/2021, 1:00 PM – 3:20 PM (PDT)

1:00 PM: **Maha Alafeef** *Rapid, ultrasensitive, and quantitative detection of SARS-CoV-2 using antisense oligonucleotides directed electrochemical biosensor chip* (20 minutes, 3558460)

1:20 PM: **Brandon Johnston** *Understanding the role of dendrimer surface modifications for osteoarthritis drug delivery* (20 minutes, 3557511)

1:40 PM: **Ryan Madigan** *Modular design and self-assembly of multidomain peptides toward supramolecular cell penetrating nanofibers* (20 minutes, 3550510)

2:00 PM: **Kwahun Lee** *Surface curvature of CpG constructs affects endosomal maturations to enhance immune activation* (20 minutes, 3549688)

2:20 PM: **Kazushige Yokoyama** *Spectroscopic studies on the affinity of SARS-CoV-2 spike proteins to gold nano-colloids* (20 minutes, 3548839)

2:40 PM: **Pranab Sarker** *Quantum and atomistic molecular dynamics simulations of zwitterionic TMAO's hydration and anti-biofouling* (20 minutes, 3558772)

3:00 PM: **Annie Heble** *Enzyme encapsulation in porous silica nanoparticles to eliminate immune response and extend functional half-life* (20 minutes, 3557386)

Biomaterials and Biointerfaces. (COLL016E)

Tuesday 04/06/2021, 1:00 PM – 3:20 PM (PDT)

1:00 PM: **Sophia McClain** *Interaction of alpha-synuclein with rigid lipid vesicle mimics of varying surface curvature* (20 minutes, 3550713)

1:20 PM: **Elham Malekzadeh** *Thermoresponsive poly(methyl vinyl ether) (PVME) retained by 3-aminopropyltriethoxysilane (APTES) for cell attachment/detachment studies* (20 minutes, 3550388)

1:40 PM: **Jason Keleher** *Strategic design of antimicrobial hydrogels containing biomimetic crosslinkers for enhanced matrix responsiveness* (20 minutes, 3554382)

2:00 PM: **Gianna Villani** *Engineering a tunable smart gel for epidermal growth factor formulation and delivery* (20 minutes, 3553952)

2:20 PM: **Keith Whitener** *Integrating transferrable chemically modified graphene with materials and biological substrates* (20 minutes, 3555924)

2:40 PM: **Weike Chen** *Combined tumor environment triggered self-assembling peptide nanofibers and inducible multivalent ligand display for cancer cell targeting with enhanced sensitivity and specificity* (20 minutes, 3552629)

3:00 PM: **Jessica Guo**, **Varun Nimmagadda**, **Tyler Shern**, **Stephanie Tarrab**, **Jeffrey Zhang**, and **Emily Zhou** *Smart liquid embolic agent for dynamic adjustments to brain aneurysm embolization and healing* (20 minutes, 3552727)

Biomaterials and Biointerfaces. (COLL016F)

Wednesday 04/07/2021, 1:00 PM – 3:50 PM (PDT)

1:00 PM: **Yulan Hernandez** *Multifunctionalized gold nanoparticles and adenoviruses, a perfect tandem for mesenchymal stem cells' infection and cell therapy* (20 minutes, 3530886)

1:20 PM: **Benjamin Partridge** *Protein packing within single crystals programmed by noncovalently-bound DNA* (20 minutes, 3531626)

1:40 PM: **William Ducker** *A CuO surface coating that reduces infection by SARS-CoV-2* (30 minutes, 3533149)

2:10 PM: **Atip Lawanprasert** *Tuning the interfacial properties of fluorous colloids towards ultrasound programmable bioactivity.* (20 minutes, 3533569)

2:30 PM: **Carlie Clem** *Antimicrobial activity of poly(acrylate) microgels with embedded copper(II) complex related to composition* (20 minutes, 3551288)

2:50 PM: **Amjad Chowdhury** *Protein-protein interactions and self association in antibody solutions via static light scattering, small angle x-ray scattering, and coarse-grained molecular dynamics simulations* (20 minutes, 3557458)

3:10 PM: **Su Yang** *In situ triggered filamentous cell-penetrating peptides (FCPPS) for tumor cell targeted therapeutic delivery* (20 minutes, 3553399)

3:30 PM: **Lin Chen** *Surface-initiated photopolymerization for microchannel fabrication and enhanced cell adhesion on complex 3D printed substrates* (20 minutes, 3543831)

Biomaterials and Biointerfaces. (COLL016G)

Tuesday 04/06/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Samarthaben Patel** *Effect of peptide sequence mutations on the translocation of charged peptide loops across lipid interfaces with molecular dynamics simulations* (20 minutes, 3540357)

5:20 PM: **Yuan Li** *Synthesis and surface structural characterization of the nano-bio interface for amorphous and nanocrystalline hydroxyapatite morphologies* (20 minutes, 3554443)

5:40 PM: **Vuk Uskokovic** *Calcium phosphate nanoparticles as intrinsic inorganic antimicrobials* (20 minutes, 3533779)

6:00 PM: **Hoomin Lee** *Development of tumor microenvironment responsive drug delivery system based on albumin nanoparticles for improved photodynamic therapy and combination therapy* (20 minutes, 3541706)

6:20 PM: *Withdrawn* (3552527)

6:40 PM: **Pradipta Behera** *Differential sensing of proteins and bacteria by using cationic two-dimensional MoS_2 sensor array* (20 minutes, 3538668)

7:00 PM: **Heng Chang** *Impact of sequence on underwater adhesion of short peptides with cation-π synery* (20 minutes, 3558405)

7:20 PM: **Subhadip Basu** *Probing molecular-level interactions into electric field mediated fibronectin-hydroxyapatite interaction* (20 minutes, 3556518)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018A)

Monday 04/12/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Andreas Fery** *Dynamic tuning of giant circular dichroism in chiral colloidal assemblies* (20 minutes, 3553728)

9:20 AM: **Andrei Novikov** *Phase diagram and equilibrated phases properties for the H_2O–CH_3OH–$CHCl_3$ system: Implications for the lipid extraction* (20 minutes, 3530309)

9:40 AM: **Guang Chu** *New perspectives into nanocellulose liquid crystal: Bubbles, emulsions and colloidal glass* (20 minutes, 3531590)

10:00 AM: **Benoit Duchemin** *Temperature-dependence of the static contact angle: a universal scaling law covering ideal cases, roughness effects and the transition to total wetting* (20 minutes, 3551707)

10:20 AM: **Quirin Prasser** *Electrochemical switching of block copolymers at the water-oil interface* (20 minutes, 3553528)

10:40 AM: **Rosangela Mastrangelo** *Twin-chain networks: A new class of hydrogels for the cleaning of modern and contemporary art* (20 minutes, 3553534)

11:00 AM: **Ilaria Clemente** *Lipids from algal biomass provide mesophases with varied symmetry as high-potentiality carriers* (20 minutes, 3551729)

11:20 AM: **Guido Bolognesi** *Reversible trapping of colloids in microgrooved channels by diffusiophoresis* (20 minutes, 3554344)

11:40 AM: **Estefania Gonzalez Solveyra** *Proteins adsorbing onto surface modified nanoparticles: effect of surface curvature, pH and the interplay of polymers and proteins acid-base equilibrium* (20 minutes, 3553649)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018B)

Wednesday 04/14/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Larisa Tsarkova** *Volatile aroma surfactants: Characterization and areas of application* (20 minutes, 3555677)

9:20 AM: **Sudh G** *Oil-in-oil emulsion polycondensation reactions by supramolecular cage surfactant* (20 minutes, 3555678)

9:40 AM: **Rémi Dupuy** *Investigating surfactants at the liquid-vapor interface using liquid jet photoemission spectroscopy* (20 minutes, 3550965)

10:00 AM: **Giulia Moretti** *Adaptive castor-oil based organogels: Synthesis, characterization and use for the selective and controlled cleaning of works of art* (20 minutes, 3556089)

10:20 AM: **Szabolcs Murath** *Paper-based antioxidant detection using the CUPRAC assay* (20 minutes, 3543231)

10:40 AM: **Tatiana Morozova** *Polymer adsorption on bio-inspired disordered substrates* (20 minutes, 3552991)

11:00 AM: **Davide Rossi** *Application of surface tensiometry in the investigation of the permeation process using Rossi number* (20 minutes, 3556748)

11:20 AM: **Torbjorn Pettersson** *Structural changes during drying of regenerated cellulose gel beads* (20 minutes, 3557500)

11:40 AM: **Xianwen Mao** *Understanding energy storage performance of surfactant ionic liquids with self-assembled nanostructures* (20 minutes, 3549895)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018C)

Monday 04/12/2021, 5:00 PM – 8:00 PM (PDT)

5:00 PM: **Yuntong Ge** *Experimental study of the interaction mechanism between oil drop and underwater superoleophobic PA-FC modification surfaces* (20 minutes, 3549118)

5:20 PM: **Grant Johnson** *Elucidating the role of intermediates in cluster synthesis using mass spectrometry* (20 minutes, 3537429)

5:40 PM: **Kai Li** *AFM study of colloidal forces between PDDA/PSS PEMs-coated particles and drops* (20 minutes, 3551688)

6:00 PM: **Jialiang Liu** *Surface fractality of solid materials based on their specific porous nature* (20 minutes, 3558459)

6:20 PM: **Vipul Agarwal** *Tuning polymer/reduced graphene oxide nanocomposite properties using emulsion-based approaches* (20 minutes, 3555161)

6:40 PM: **Xin Wang** *Droplet jumping condensation on knife-shaped nanostructured superhydrophobic surfaces: Effects of surface orientation and initial wetting state* (20 minutes, 3552332)

7:00 PM: **uma sankar behera** *Evaluation of the aqueous nanofluids system with surfactant-polymer as an additive through spontaneous imbibition experiment relevant for enhanced oil recovery* (20 minutes, 3555869)

7:20 PM: **fan xiao** *the force between gold particles and water drops* (20 minutes, 3555178)

7:40 PM: **Omkar Hegde** *Dispersing Âµ-particle agglomerates through vapor mediation induced marangoni flow* (20 minutes, 3551562)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018D)

Monday 04/12/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Oliver Deane** *Synthesis and characterization of waterborne pyrrolidone-functional diblock copolymer nanoparticles prepared via surfactant-free RAFT emulsion polymerization* (20 minutes, 3541958)

1:20 PM: **Rebecca Gibson** *RAFT dispersion polymerization of N,N-dimethylacrylamide in a series of n-alkanes using a poly(tert-octyl acrylamide) steric stabilizer* (20 minutes, 3541998)

1:40 PM: **Md Symon Jahan Sajib** *Understanding protein and nanoparticle size effect on protein corona formation from coarse-grained and atomistic molecular dynamics* (20 minutes, 3558083)

2:00 PM: **Chang Da** *Tuning surface chemistry and ionic strength to control nanoparticle adsorption and elastic dilational modulus at the air-brine interface* (20 minutes, 3557831)

2:20 PM: **Emma Tran** *Peeling back the layers: Investigating how multi-polymer layering influences nanoemulsion surface structure and stability* (20 minutes, 3553182)

2:40 PM: **Colin Basham** *Kinetics of lipid monolayer assembly in the presence of MUS:OT amphiphilic nanoparticles* (20 minutes, 3551927)

3:00 PM: **Sangchul Roh** *In situ optical mapping of amphiphile reorganization induced by flow at liquid crystal-water interfaces* (20 minutes, 3555802)

3:20 PM: **Maria Vazquez de Vazquez** *Solution and interfacial phase binding of Ca^{2+} and Mg^{2+} to acetate and palmitic acid: Temperature and binding motifs* (20 minutes, 3549699)

3:40 PM: **Kimberly Carter Fenk** *Vibrational exciton formation between surfactants at the air/water interface: A cautionary tale* (20 minutes, 3556769)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018E)

Tuesday 04/13/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Samhitha Kancharla** *Surfactant-polymer mixed micelles: structure and composition modulated by the hydrophobicity of surfactant, polymer, or solvent* (20 minutes, 3553000)

1:20 PM: **Lucas Capre** *Influence of surface composition on the adsorption of chemically functionalized gold nanoparticles at the oil-in-water interface* (20 minutes, 3533008)

1:40 PM: **Parvin Alaee** *Effect of combination of different silica nanoparticles and shear history on rheological behavior of polyethylene glycol/silica nanofluids* (20 minutes, 3568627)

2:00 PM: **Markus Hoffmann** *Solutions of water in oil reverse micelles do not conform to the Stokes-Einstein equation* (20 minutes, 3542711)

2:20 PM: **Grant Daniels** *Identification and role of fuel components on bilgewater emulsion stability* (20 minutes, 3552154)

2:40 PM: **Michael Joyce** *Activation of Oswald ripening mechanism in graphene stabilized polymerized high internal phase emulsions* (20 minutes, 3552507)

3:00 PM: **Oscar Piñeres-Quiñones** *Liquid crystal emulsions stabilized by nanoparticle-surfactant complexes* (20 minutes, 3556158)

3:20 PM: **Andrew Carpenter** *Impact of electric fields on surfactant adsorption to nanoemulsion surfaces* (20 minutes, 3556604)

3:40 PM: **sree talluri** *Mechanistic insights on the effect of additive on supramolecular gel system* (20 minutes, 3532269)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018F)

Wednesday 04/14/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Saul Hunter** *Effect of salt on the formation and stability of water-in-oil pickering nanoemulsions stabilized by diblock copolymer nanoparticles* (20 minutes, 3545568)

1:20 PM: **Gervasio Zaldivar** *Molecular basis for the morphological transitions of surfactant wormlike micelles triggered by encapsulated non-polar molecules* (20 minutes, 3541914)

1:40 PM: **Saehyun Choi** *RNA partitioning and hybridization in multiphase complex coacervates composed by oligopeptides* (20 minutes, 3554434)

2:00 PM: **Xavier Banquy** *Bio-inspired superadhesive peptides with enhanced cation-Ï€ interactions* (20 minutes, 3558466)

2:20 PM: **Arinzechukwu Aniekwe** *Synthesis, self-assembly, gelation, and DNA binding molecular docking studies of 9-aminoacridine derivatives* (20 minutes, 3556881)

2:40 PM: **Jessika Pazol** *Understanding how the initial water condition containing calcium ions (Ca2+) affects mutant bacterial lipopolysaccharides (Ra LPS) structure* (20 minutes, 3551846)

3:00 PM: **Alia Mallah** *Bovine chondrocytes decrease in deformability and elasticity during articular cartilage development in monolayer cultures* (20 minutes, 3543746)

3:20 PM: **Louis Haber** *Molecular adsorption and transport studies at liposome interfaces and cell membrane surfaces using second harmonic generation* (20 minutes, 3557890)

3:40 PM: **Kathleen Lauser** *Effect of excipient addition on the extensional flow of protein solutions* (20 minutes, 3550814)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018G)

Thursday 04/15/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Murielle Schreck** *How 3D printed polymeric scaffolds optimize geometry, mechanical stability and photocatalytic performance of nanoparticle-based aerogels* (20 minutes, 3551399)

1:20 PM: **Abigail Linhart** *Developing photoactive slurry formulations for the modulation of oxide removal rate in shallow trench isolation (STI) chemical mechanical planarization (CMP)* (20 minutes, 3554111)

1:40 PM: **Hongru Ding** *Light-powered rotation of micro/nanocolloids at a liquid-solid interface* (20 minutes, 3552671)

2:00 PM: **Katherine Wortman-Otto** *Synergistic effect of megasonic action and supramolecular assemblies on shallow trench isolation (STI) post-chemical mechanical planarization (p-CMP) cleaning* (20 minutes, 3548263)

2:20 PM: **Douglas Adamson** *Enhanced exfoliation of graphite in the presence of salts* (20 minutes, 3544151)

2:40 PM: **Liang-Hsun Chen** *Design and use of a thermogelling methylcellulose nanoemulsion to formulate nanocrystalline oral dosage forms* (20 minutes, 3549143)

3:00 PM: **Minxiang Zeng** *Colloidal nanosurfactant-based inks for 3D conformal printing* (20 minutes, 3555369)

3:20 PM: **Youngsun Kim** *Liquid-in-liquid manipulation using optothermal tweezers* (20 minutes, 3557258)

3:40 PM: **Srikanth Nayak** *Complex fluid structure and ion hydration in liquid-liquid extraction of lanthanides* (20 minutes, 3551391)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018H)

Friday 04/16/2021, 1:00 PM – 3:40 PM (PDT)

1:00 PM: **Adewumi Dada** *Comparative Physicochemical and spectroscopic characterization of core shell nanoscale zerovalent iron (nZVI) and manganese oxide (MnO_2) nanoparticles* (20 minutes, 3556061)

1:20 PM: **Hannah Stoner** *Driving force effects on the wetting behavior of clathrate hydrates* (20 minutes, 3555162)

1:40 PM: **John Franck** *Magnetic single- and dual-resonant relaxometry to probe the dynamics of water molecules under confinement* (20 minutes, 3558552)

2:00 PM: **Waruni Karunaratne** *Elucidating interfacial behavior of molten salts using molecular dynamics simulations* (20 minutes, 3552075)

2:20 PM: **Bradley Dallin** *Resolving molecular details modulating hydrophobicity of heterogeneous interfaces using molecular simulations and data-centric analysis* (20 minutes, 3542321)

2:40 PM: **Olivia Mumma** *Specific ion effects on fluorescence quenching of coumarin* (20 minutes, 3534729)

3:00 PM: **Michaela Rogers** *Competitive binding interactions for phosphoric and phosphonic acids in proxy aged aerosols* (20 minutes, 3548823)

3:20 PM: **Hao Ding** *Exfoliation of α-Zirconium phosphate using tetraalkylammonium hydroxides* (20 minutes, 3548215)

Basic Research in Colloids, Surfactants and Interfaces. (COLL018I)

Tuesday 04/13/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: *Withdrawn* (3549120)

5:20 PM: **Jerome Delhommelle** *Self-organization and swarm behavior in active matter: A combined computational-experimental analysis of the intelligence-information interplay* (20 minutes, 3558788)

5:40 PM: **Mariana Nogueira Lima** *Self-assembly of tunable biodegradable diblock and triblock polymeric surfactants into functional nanoparticles* (20 minutes, 3557863)

6:00 PM: **Keith Johnston** *Tuning nanoparticle surface chemistry and interfacial properties for highly stable nitrogen-in-brine foams* (20 minutes, 3558286)

6:20 PM: **Deepak Badgurjar** *Interfacial electron transfer from photoexcited chromophores to indium oxide (In_2O_3) nanocrystals* (20 minutes, 3557550)

6:40 PM: **Hikmat Binyaminov** *Thermodynamic investigation of droplet–droplet and bubble–droplet equilibrium in an immiscible medium* (20 minutes, 3554026)

7:00 PM: **Nida Shaikh** *Carbon particulate adsorption to aqueous – air interfaces and their effects on lipid film structure and organization* (20 minutes, 3531162)

7:20 PM: **Rich Thai** *Structural dynamics and organization of phospholipids on ultrasmall Stöber silica nanoparticle supports probed by static SS-NMR, DSC, and NS-TEM* (20 minutes, 3558436)

ACS Award Lectures 2020 (COLL020A)

Thursday 04/08/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: *Introductory Remarks:* ***Kate Stebe****, COLL Chair 2020* (10 minutes)

9:10 AM: *Introduction of Awardee* (5 minutes)

9:15 AM: **Teri Odom** *Chemistry on three-dimensional surfaces* (50 minutes, 3550132)

10:05 AM: *Introduction of Awardee* (5 minutes)

10:10 AM: **Kerry Karukstis** *Fluorescence delineation of self-assembled aggregates of amphiphilic surfactants and chromonic dyes* (50 minutes, 3553306)

11:00 AM: *Panel Discussion* (60 minutes)

ACS Award Lectures 2021 (COLL021A)

Wednesday 04/07/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: *Introductory Remarks by **Matt Lynch**, COLL Chair 2021* (10 minutes)

9:10 AM: *Introduction of Awardee* (5 minutes)

9:15 AM: **Emily Weiss** *Colloidal quantum dots just keep getting more interesting* (50 minutes, 3537090)

10:05 AM: *Introduction of Awardee by **Gonghu Li*** (5 minutes)

10:10 AM: **Vicki Grassian** *Exploring the chemistry of environmental interfaces* (50 minutes, 3534974)

11:00 AM: *Panel Discussion* (60 minutes)

ACS Award in Surface Chemistry 2020: Symposium in Honor of Teri Odom. (COLL022A)

Monday 04/12/2021, 9:00 AM – 11:45 AM (PDT)

9:00 AM: *Introductory Remarks* (15 minutes)

9:15 AM: **Chad Mirkin** *Rapid, large-volume, thermally controlled 3D printing using a mobile liquid interface* (30 minutes, 3530773)

9:45 AM: **Joanna Aizenberg** *Inverse-opal structures for photonic, catalytic and sensing applications* (30 minutes, 3542529)

10:15 AM: **wei zhou** *Nanolaminated multiresonant plasmonics for nano-bio interface* (30 minutes, 3547996)

10:45 AM: **Shana Kelley** *Tuning biomolecular display on nanostructured surfaces for high-performance sensing* (30 minutes, 3550630)

11:15 AM: **Catherine Murphy** *What are ligands like on gold nanocrystals?* (30 minutes, 3551343)

ACS Award in Surface Chemistry 2020: Symposium in Honor of Teri Odom. (COLL022B)

Monday 04/12/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Joseph DeSimone** *Bringing the digital revolution to polymer manufacturing* (30 minutes, 3542504)

1:30 PM: **Naomi Halas** *Metal nanocrystals from earth-abundant metals* (30 minutes, 3542489)

2:00 PM: **Lisa McElwee-White** *Organometallic precursors for FEBID and FIBID of nanostructures* (30 minutes, 3547815)

2:30 PM: **Debra Rolison** *Integrating catalysis-critical transport functions within nanoarchitectured platforms* (30 minutes, 3553324)

3:00 PM: **Bozhi Tian** *Bioelectrical engineering at the semiconductor-enabled biointerfaces* (30 minutes, 3551093)

3:30 PM: **John Rogers** *Deterministic routes to assembly of functional materials into complex, three dimensional architectures* (30 minutes, 3542704)

ACS Award in Surface Chemistry 2020: Symposium in Honor of Teri Odom. (COLL022C)

Tuesday 04/13/2021, 9:00 AM – 11:45 AM (PDT)

9:00 AM: **Harry Atwater** *Grand challenges for nanophotonics: Steering and riding light* (30 minutes, 3542532)

9:30 AM: **Anne Andrews** *Electronic, multiplexed neurochemical monitoring* (30 minutes, 3542522)

10:00 AM: **P. James Schuck** *Next-generation upconverting nanoparticles for low-threshold micro- and nano-lasing* (30 minutes, 3542539)

10:30 AM: **Hanwei Gao** *Could composite Halide perovskites provide a stable solution?* (30 minutes, 3557870)

11:00 AM: **George Schatz** *Optical properties of 2D and 3D plasmonic nanoparticle arrays* (30 minutes, 3542779)

11:30 AM: *Concluding Remarks* (15 minutes)

ACS Award for Research at an Undergraduate Institution 2020: Symposium in honor of Kerry Karukstis. (COLL023A)

Tuesday 04/06/2021, 1:00 PM – 3:30 PM (PDT)

1:00 PM: **Vivian Feng** *Investigation of nanoparticle surface properties that impact interactions with model bacteria* (25 minutes, 3552136)

1:25 PM: **Sunghee Lee** *Biomimetic self-assembly: The nanoliter aqueous microdroplet and insights into bilayer membrane structure* (25 minutes, 3533459)

1:50 PM: **Wei Chen** *Polymer thin-film stability studies using spin coating* (25 minutes, 3531294)

2:15 PM: **Adam Wanekaya** *In situ synthesis, stabilization and activity of protein-modified gold nanoparticles for biological applications* (25 minutes, 3558837)

2:40 PM: **Kathryn Riley** *Development of a novel analytical method for the In Situ quantification and speciation of Ag(I) and AgNPs released from nano-enabled textiles* (25 minutes, 3549729)

3:05 PM: **Audra Goach** *Langmuir monolayers of membrane lipids as model systems for investigating the mechanisms behind the healing properties of commercial natural products* (25 minutes, 3549463)

ACS Award for Research at an Undergraduate Institution 2020: Symposium in honor of Kerry Karukstis. (COLL023B)

Tuesday 04/06/2021, 5:00 PM – 7:30 PM (PDT)

5:00 PM: *Withdrawn* (3551160)

5:25 PM: **Mark Bussell** *Optimizing nickel phosphide catalysts: Effect of Ru incorporation and support additives* (25 minutes, 3549621)

5:50 PM: **Krisanu Bandyopadhyay** *In situ generated metal nanoparticles as two-dimensional assemblies, core-shell structure and biosensor* (25 minutes, 3555348)

6:15 PM: **Grace Stokes** *Quantifying adsorption of antipsychotic drugs to lipid membranes using second harmonic generation* (25 minutes, 3551365)

6:40 PM: **Joel Destino** *Sol-gel derived germania colloids: Growth, structure, and application in glass 3D printing* (25 minutes, 3533607)

7:05 PM: **Marilyn Mackiewicz** *Solving the mystery between silver and silver nanoparticles: Who's toxic?* (25 minutes, 3556231)

ACS Award for Research at an Undergraduate Institution 2020: Symposium in honor of Kerry Karukstis. (COLL023C)

Wednesday 04/07/2021, 1:00 PM – 3:55 PM (PDT)

1:00 PM: **Mary Devadas** *Super atom gold clusters doped with metals: Optical and electrochemical properties* (25 minutes, 3553151)

1:25 PM: **Joseph Krumpfer** *Siloxanes as useful modification agents for inorganic oxides: simple techniques and applications towards conformal, multi-functional interfaces* (25 minutes, 3556925)

1:50 PM: **Jeffery Niezgoda** *Changes without Exchanges: On-Particle Ligand Chemistry with Purpose-Designed, As-Synthesized Ligands* (25 minutes, 3568595)

2:15 PM: **David Boucher** *Functional approach to solubility parameter computations* (25 minutes, 3556976)

2:40 PM: **Mary Carroll** *Aerogels! Engaging undergraduate students in cross-disciplinary research* (25 minutes, 3535890)

3:05 PM: **Mary Anderson** *Bottom-up assembly of surface-anchored metal-organic framework thin films* (25 minutes, 3557179)

3:30 PM: **Jeremy Driskell** *Investigating the stability and orientation of antibody adsorbed onto gold nanoparticles* (25 minutes, 3548778)

ACS Award for Research at an Undergraduate Institution 2020: Symposium in honor of Kerry Karukstis. (COLL023D)

Wednesday 04/07/2021, 5:00 PM – 7:30 PM (PDT)

5:00 PM: **Jingbo Liu** *Design and evaluation of interactive nanomaterials to improve alternative energy utilization* (25 minutes, 3552939)

5:25 PM: **Ajay Mallia** *Self-assembly, gelation, and mechanical properties of molecular gels derived from simply structured molecules as low molecular mass gelators* (25 minutes, 3557110)

5:50 PM: **Jason Keleher** *Synthesis and characterization of â€œresponsiveâ€ supramolecular nanocomposite materials for health, safety, and environmental applications* (25 minutes, 3554396)

6:15 PM: **Rajesh Nayak** *Photophysical properties of fluorescent probemolecules within nanoconfined reverse micelle* (25 minutes, 3558491)

6:40 PM: **Fangyuan Tian** *Studies of surface chemistry of hybrid porous materials for tuning drug delivery efficacy and efficiency* (25 minutes, 3531592)

7:05 PM: **Michael Groves** *Tuning acidity of graphene oxide for the reducBon of O2 to H2O2 using physical hole defects* (25 minutes, 3556517)

ACS Award in Colloid Chemistry 2021: Symposium in Honor of Emily Weiss. (COLL024A)

Tuesday 04/06/2021, 1:00 PM – 3:40 PM (PDT)

1:00 PM: **Dana Westmoreland** *Redox-active N-heterocyclic carbene ligands reversibly modulate the exciton confinement in CdSe quantum dots* (30 minutes, 3536575)

1:30 PM: **Mario Tagliazucchi** *Modeling the phase behavior of nanoparticle superlattices* (30 minutes, 3537839)

2:00 PM: **Martin McPhail** *Tracking quantum dot ligand exchange through macroscale thin film reorganization* (30 minutes, 3552664)

2:30 PM: *Intermission* (10 minutes)

2:40 PM: **Kathryn Knowles** *Controlling crystal phase, composition, and morphology of colloidal metal oxide nanoparticles using solvent and precursor coordination chemistry* (30 minutes, 3543411)

3:10 PM: **Ofer Kedem** *Transporting colloidal nanoparticles using symmetry-breaking ratchets* (30 minutes, 3550508)

ACS Award in Colloid Chemistry 2021: Symposium in Honor of Emily Weiss. (COLL024B)

Tuesday 04/06/2021, 5:00 PM – 7:40 PM (PDT)

5:00 PM: **Bryan Lau** *Optical properties of doped quantum dots from quantum chemistry* (30 minutes, 3537161)

5:30 PM: **Shengye Jin** *Carrier transport in two dimensinal layered perovskites* (30 minutes, 3553532)

6:00 PM: **Kevin McClelland** *Improving photocatalytic proton reduction with CdSe quantum dots using polyoxovanadate clusters as redox mediators* (30 minutes, 3554673)

6:30 PM: *Intermission* (10 minutes)

6:40 PM: **Mohamad Kodaimati** *Modifying mass transport durinng electrocatalytic CO_2 reduction with magnetic fields* (30 minutes, 3556119)

7:10 PM: **Chen Wang** *Searching proper surface interactions to mediate exciton kinetics in colloidal perovskite nanocrystals with strong quantum-confinement* (30 minutes, 3556394)

ACS Award in Surface Chemistry 2021: Symposium in Honor of Vicki Grassian.
(COLL025A)

Tuesday 04/13/2021, 1:00 PM – 3:50 PM (PDT)

1:00 PM: *Introductory Remarks* (5 minutes)

1:05 PM: **Charles Campbell** *Calorimetric methods in surface chemistry research* (30 minutes, 3549099)

1:35 PM: **Sara Mason** *Building bridges between computational chemistry and experiment at the nanoscale: Surface processes in aqueous environments* (30 minutes, 3556290)

2:05 PM: **Sherine Obare** *Tailoring nanoparticle surfaces to uderstand their impact on environmental processes* (30 minutes, 3555024)

2:35 PM: *Intermission* (10 minutes)

2:45 PM: **Miriam Freedman** *Separation relative humidity of systems that undergo liquid-liquid phase separation: Effects of particle size and the presence of soluble organic compounds* (30 minutes, 3558418)

3:15 PM: **Gilbert Nathanson** *Big impacts of little droplets: Using scattering experiments to explore the surface chemistry of sea spray* (30 minutes, 3531056)

3:45 PM: *Concluding Remarks* (5 minutes)

Semiconductor Surfaces: From Chemistry and Function to Applications. Selectivity in Atomically Precise Processes (COLL027A)

Monday 04/05/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Bonggeun Shong** *Applications of surface chemistry toward efficient development of atomic layer deposition processes* (30 minutes, 3531219)

9:30 AM: **Tania Sandoval** *Adsorption descriptors for surface deactivation and selective deposition* (30 minutes, 3556911)

10:00 AM: **Luis Fabian Pena** *Reduced temperature preparation of atomically clean Si surfaces to augment CMOS with atomic precision devices* (20 minutes, 3555612)

10:20 AM: *Intermission* (20 minutes)

10:40 AM: **James Owen** *Triethyl aluminium as a precursor for atomic-precision advanced manufacturing* (30 minutes, 3553835)

11:10 AM: **Taylor Stock** *Surface chemistry and atomically precise doping: Arsine on silicon and germanium* (30 minutes, 3550918)

11:40 AM: **Bharat Tandon** *Influence of dopant on surface depletion and extinction coefficients in doped metal oxide nanocrystals* (20 minutes, 3533722)

Semiconductor Surfaces: From Chemistry and Function to Applications. Chemistry of Functionalization and Doping (COLL027B)

Monday 04/05/2021, 1:00 PM – 4:00 PM (PDT)

1:00 PM: **Kevin Dwyer** *Halogenated Si(100) surface chemistries for Al and B delta doping with STM* (30 minutes, 3549488)

1:30 PM: **Timo Glaser** *Solution-based alkyne azide coupling on functionalized Si(001) prepared under UHV conditions* (20 minutes, 3550067)

1:50 PM: **Duy Le** *Functionalizing MoS_2 with gold nanoparticles for catalytic applications* (30 minutes, 3557666)

2:20 PM: *Intermission* (20 minutes)

2:40 PM: **Wiley Kirk** *Atomically precise doping using alanes to form a 2D-layer of acceptors in Si* (20 minutes, 3557254)

3:00 PM: **Dhamelyz Silva Quiñones** *Reaction of BCl_3 and N_2H_4 with hydrogen and halogen-terminated Si(100) surfaces* (20 minutes, 3548907)

3:20 PM: **Thomas Mullen** *Organosilane nanostructure fabrication on semiconductor substrates using particle lithography: Influence of solvent and surface water* (20 minutes, 3533291)

3:40 PM: **Wang Zijian** *In operando XPS study on atomic layer etching of Fe and Co using Cl_2 and acetylacetone or hexafluoroacetylacetone* (20 minutes, 3557640)

Semiconductor Surfaces: From Chemistry and Function to Applications. Surface Design of Materials and Interfaces (COLL027C)

Tuesday 04/06/2021, 9:00 AM – 12:00 PM (PDT)

9:00 AM: **Samuel Jarvis** *Atomically precise design: Insights from sub-molecular resolution atomic force microscopy* (30 minutes, 3553707)

9:30 AM: **Si Yue Guo** *Electron-induced in-plane molecular rotation of para-chlorostyrene on silicon* (30 minutes, 3551448)

10:00 AM: **Yi Rao** *Time-resolved electronic sum frequency generation for charge transfer at GaAs/C_{60} interfaces* (20 minutes, 3552400)

10:20 AM: *Intermission* (20 minutes)

10:40 AM: **Tong Cai** *Lead-free copper antimony halide layered double perovskite nanocrystals* (20 minutes, 3534661)

11:00 AM: **Samantha Harvey** *Ligand identity determines carrier dynamics in $CuInSe_2$ nanocrystals* (20 minutes, 3549659)

11:20 AM: *Withdrawn* (3552785)

11:40 AM: **Anumol S** *Broadband photodetection using $CuFeS_2$ nanocrystals-n type silicon heterojunctions* (20 minutes, 3555791)

Posters

All posters will be on-demand in the virtual platform. Poster presenters are required to upload their poster in PDF or PowerPoint format. Poster presenters may also choose to record a brief 3-5 minute video to accompany their poster to be available on demand throughout the meeting. Additionally, there will be a live, interactive poster session on Wednesday, April 21.

Self-assembly in Polymer Systems (Posters, COLL002A)

Chaoqiuyu Wang *Enhanced thermoelectric performance of a molecularly doped polythiophene-based rod-coil block copolymer via the addition of an ionic dopant* (3555328)

Srivarshini Ganesan *Aggregation dynamics of amyloidogenic peptides through coarse-grained simulations* (3550857)

BAISHALI BARUA *Reconfigurable complex droplet-based sensing array for multiplex metal-ion detections* (3555211)

Suchol Savagatrup *Reconfigurable complex droplet-based sensing array for multiplex metal-ion detections* (3555211)

Biomembrane Synthesis, Structure, Mechanics, and Dynamics (Posters, COLL004A)

Rachel Daso *Evaluation of ionic liquid-peptide amphiphile interactions using computational approaches* (3530560)

Fathima Doole *Antimicrobial peptide biomembrane interactions visualized by molecular simulations and solid-state ^{2}H NMR spectroscopy* (3556740)

Kushani Hewage *Soft matter affects G-protein-coupled receptor activation* (3556957)

Hannah Krivic *Novel drug delivery system for antibiotic therapy using modified erythrocyte liposomes* (3548741)

Tetyana Loskutova *Impedimetric membrane-based biosensor: A Machine Learning approach* (3552500)

Kyle McLaughlin *Effects of various metal cations on the aggregation of human insulin Langmuir monolayers* (3557854)

Colloidal Nanoparticle Synthesis and Assembly (Posters, COLL006A)

Veronica Grebe *Quantifying order in optical micrographs of one- and two-dimensional anisotropic colloidal particle assemblies* (3537302)

Mark Tolentino *Reversible thermoresponsive crosslinker for controllable micelle degradation* (3548613)

Leandro Missoni *Body-centered tetragonal nanoparticle superlattices: Why and when they form?* (3548899)

Fadi AL-Shnani *Fluorescence quantum efficiency enhancement in size-controlled 3.5 monolayer cadmium telluride nanoplatelets* (3548765)

Junlong Song *Super stable raw kraft lignin-based pickering emulsion* (3555600)

Michael De Guzman *Size mapping of PLGA nanoparticles as a function of organic and water compositions* (3556373)

Siyu Wu *Determine growth kinetics of colloidal nanoparticles by a fully quantitative model* (3557274)

Ruiyang Xue *Bright and stable surface-enhanced Raman scattering nanoparticle tags with locked hydrophobic inner domains* (3555149)

Jingyi Xue *Development of novel biopolymer-based dendritic nanocomplexes for encapsulation of phenolic bioactive compounds* (3557879)

Colloidal Hybrid Materials Intended for Biological Applications (Posters, COLL008A)

Thiloka Dassanayake *Alumina-based potent approach to overcome the silver resistance: Harnessing the power of extremely high antimicrobial activity of α-alumina nanoparticles* (3533161)

Sergey Kazakov *Nuances of lipobeads as a bioscopic drug delivery system* (3554220)

Rossana Terracciano *Intratumoral diffusion patterns of small-molecule surface passivated Gold Nanoparticles quantified using in vivo micro-CT imaging* (3554844)

Jacob Zangaro *Optimization and characterization of novel formulations for hydrophilic biological drug encapsulation* (3556821)

Nitza Falcon *Gallium oxide nanoparticles modified with β-cyclodextrin interaction with human serum albumin: A fluorescence spectroscopy study* (3543670)

Nisha Modi *Metabolic soft matter: Dissipative self-assembly of catalytic coacervates* (3557883)

Dahlia Liu *Green synthesis of silver nanoparticles grafted on graphene oxide nanosheets* (3557587)

Tingying Helen Zeng *Green synthesis of silver nanoparticles grafted on graphene oxide nanosheets* (3557587)

Suzanne Giasson *Hierarchical microgels as coatings for independent and specific control of surface properties* (3554376)

Suzanne Giasson *Multi-functional nanoparticles selective to receptor densities* (3557804)

Nanomaterials (Posters, COLL013A)

Congxue Tian *Effects of structures and properties of metatitanic acid on high purity TiO_2 preparation via short sulfate process* (3530303)

James Bryant, Mary Devadas *FeCo nanoparticles coated in photomagnetic dye: Synthesis and characterization* (3530460)

Benjamin Raufman, Mary Devadas *Optimizing the synthesis and properties of metal-doped and dye-labelled Au_{25} clusters* (3530465)

Satadru Chakrabarty *Transformation of organic solvents into photoluminiscent carbon quantum dots during liquid phase exfoliation assisted by ultrasonication: An unexpected discovery* (3535043)

Sahil Ghate *Using electrospray ionization to uniformly coat surfaces with carbon nanotube solution* (3548252)

Naureen Rahman *Halloysite animal hairs coating optimization for efficient antilice protection* (3548298)

Joanna Wang *Synthesis and characterization of Fe^{2+} doped ZnSe nanocrystals by reverse micelle microemulsion assisted hydrothermal approach* (3551305)

Dehong Hu *Fluorescence microscopy characterization of near infrared dye-doped polymer dots for super resolution imaging* (3551403)

Joanna Wang *Synthesis, characterization and development of nanostructured materials $NaGdF_4$: Eu for biomedical applications* (3551405)

jie he, chaojie shi *Enhanced photocatalytic performance of $ZnFe_2O_4$/Ag magnetic photocatalyst regulated by magnetic field* (3552713)

Mathew Kelley *Photoconductive thin films composed of environmentally benign AgBiS2 links obtained through a rapid phase transfer process* (3553216)

Margarita Samoli *Colloidal blue emissive Ruddlesden Popper Cs_2CdCl_4:Sb^{3+} nanoplatelets* (3551364)

Andrea Casini *Nano-structured systems for the consolidation of modern paintings* (3554040)

Yuwei Zhang *Metallization of DNA nanostructures as building blocks for fabricating nanoelectronic circuits* (3556222)

Max O'Connor *Connecting charge carrier dynamics to efficiency in organic nanoparticle photocatalysts* (3557799)

Nolan Kovach *Amine modified ordered mesoporous carbon surfaces for targeted metal chelation* (3559063)

Surface Chemistry (Posters, COLL015A)

Jessica Jenkins *Reaction of 2-propanol on SnO_2 (101) studied using ambient-pressure X-ray photoelectron spectroscopy* (3555978)

Minh Khoa Ta *Controlling the shape of cerium oxide nanoparticles using phosphate: A density functional theory study* (3554630)

Palak Sondhi *Studies of hierarchical nanoporous gold as a promising nanomaterial for biosensor applications* (3548353)

Amin Bakhshandeh *Theoretical investigation of Interaction between charge-regulated metal nanoparticles in an electrolyte solution* (3530067)

Kiana Cahue, Rose McDonough *Exploiting the additive/substrate complexation mechanism at the surface interface for wide band gap (WBG) chemical mechanical planarization (CMP)* (3554356)

Hristo Rasheev *Electrode-electrolyte interface in metal-ion batteries: A stage for intriguing passions* (3551002)

Diamond Jones *Systematic study of the effect of inner-sphere adsorption of alkali metals and alkaline Earth anions on the (101) quartz surface on dissolution energetics* (3557981)

Akash Jena *Analysis of wetting properties for oil-brine solutions on polymer substrates* (3558716)

Ashok Kumar *Exploration of adsorption behaviour of hydroxyl ethyl cellulose onto mesoporous bentonite surface from its aqueous solution* (3533260)

Dhanbir Lingden *Monolayer study of Kdo2-Lipid A (KLA) and its interactions with some proteins (LBP and CD14) and an LPS-antagonist; AM12* (3552251)

Shihua Dong *Calenderable supramolecular perfluorogels for facile fabrication of antibacterial tapes* (3552811)

Raymond Donatus *Interfacial surface activity of natural plant saponin extracts and Gibbs surface excess* (3549633)

Biomaterials and Biointerfaces (Posters, COLL017A)

Saige Mitchell *Physicochemical properties, molecular docking of polyphenols derivatized with in silico targeted peptides, and their potential as drug candidates.* (3535009)

Anne Prentiss *Targeting neuroblastoma cells with peptide nanofibers* (3535321)

Subrata Pandit *Biomimetic 2D template graphene oxide: A potential candidate to induced super α-helices orientation from random coils peptides* (3541748)

Minjun Chen *Fabrication and optimisation of polyethylene glycol diacrylate microparticles using lego^R inspired microfluidic device* (3542149)

Lu Yu *Maleimide-thiol coupling of ascorbate analog to poly(1,8-octanediol citrate)-co-cysteine elastomer for vascular engineering application* (3548772)

shayma Toujani Mersani *Atomic force microscopy investigations of heterogeneities in the elasticities of pathogenic and non-pathogenic Listeria species* (3551321)

Megan Ferguson *Role of lipid A phosphorylation in identification of prey by Bdellovibrio bacteriovorus* (3542042)

Kaiyuan Zheng *Antimicrobial metal nanoclusters* (3548536)

Boris Lau *Probing interfacial water at the nanomaterial-membrane interfaces: A conspectus of state-of-the-art analytical techniques* (3553246)

Jeong Yi Kang *Cell-penetrating peptide-conjugated lipid/polymer hybrid nanovesicles for endoplasmic reticulum-targeting intracellular delivery* (3553456)

Leman Kurnaz *Cholic acid-derived bioconjugates as a potential antimicrobial agent* (3555295)

Guillem Ferreres Cabanes *Dyhidrazides modified hyaluronic acid enables the safe-by-design engineering of antimicrobial metal based nanomaterials* (3554061)

Wojciech Jasnosz *Albumin as a platform for designing biologically active carriers* (3554595)

Shelli Frey *Interaction of PrP(106-126) with model cell membranes* (3557015)

Hannah Johnson *Spider silk fiber formation as a model system for characterizing biomaterials using infrared microscopy* (3555498)

Basic Research in Colloids, Surfactants and Interfaces (Posters, COLL019A)

Lijon Guiyab, Mary Devadas *Optimized seed mediated growth of gold microbars* (3530429)

Genaro Lavarias, Mary Devadas *Utilizing gold clusters for the detection of dopamine and serotonin* (3530991)

Julie Belanger *Metastable aqueous dispersions are formed from water-miscible organic solvents and naphthalenic compounds without added emulsifiers* (3549588)

Franklin Egemole *Gold-based composite particles as highly stable and reactive catalysts in homocoupling reactions* (3552055)

Hyemin Seo *Unveiling spinodal decomposition-driven phase separation of cellulose nanofibrils-reinforced nanoemulsion films for in-situ thermoset curing* (3553410)

Bidisha Bhatt *Dewetting dynamics of thin lubricating films under aqueous drops on slippery surfaces* (3554277)

Sana Afrin *Electrowetting of aqueous drops on thin lubricating film coated slippery surfaces* (3555407)

Shivam Gupta *Static wetting behaviour of sessile drops on lubricated slippery surfaces: Numerical and experimental investigation* (3555428)

Spencer Giles *Photochemical driven decomposition of 2-chloroethyl ethyl sulfide with rationally designed SiO_2-TiO_2 nanocomposites* (3555813)

Teresa Guaragnone *Nonionic surfactants for the cleaning of works of art: Insights on acrylic polymer films dewetting and artificial soil removal* (3555914)

Maryam Zare *Confocal Raman microscopy investigation of long-chain alcohol monolayers on n-alkyl-chain functionalized silica surfaces* (3556162)

Lamar Bonsu *Synthesis, gelation, and mechanical properties of molecular gels of metal deoxycholates* (3557431)

Dodangodage Senadheera, Jayne Garno *Role of water for vapor-phase reactions of octadecyltrichlorosilane on silicon and mica investigated with AFM and computational studies* (3558110)

Evan Danielson, Kerri Peterson *Interaction of β-Lactoglobulin with the nonionic surfactant lauryldimethylamine oxide* (3558181)

Ashley Walker, Quynh Do, Brandy Perkins-Howard *Effect of wettability for directing the surface assembly of latex and silica spheres evaporated from solution* (3558562)

Fuqiang Zhang *Study on adhesion and interface characteristics of high water content crude oil at low-temperature gathering and transportation* (3548329)

Josée Maurais *How to tell which of the NO_2 dimers is driving heterogeneous chemistry?* (3558667)

Nilan Kamathewatta *Control of protein binding at interfaces: Gold nanostructures and affinity peptide labels* (3558835)

Fundamental Research in Colloids, Surfaces and Nanomaterials (Posters, COLL026A)

Payagala Udawattage Ashvin Fernando, Lee Moores *Stable ZnO nanoparticle dispersions for spray coating applications* (3545848)

Samantha Harvey *Understanding the thermal properties of semiconductor nanocrystals using time-resolved X-ray diffraction* (3549698)

Daehwan Park *Two-dimensional colloidal array of glucose-conjugative conductive microparticles for a pressure-mediated chemiresistive sensor platform* (3549823)

Fanfei Yu *Microdroplet generation and manipulation on a superhydrophobic surface* (3552435)

Sharanpreet Kaur *Spectral shifts of tyrosine containing ACCH peptides: Insights into Amot function/behavior* (3554581)

Bishal Nepal *Mesoporous silica nanoparticles for safe delivery of α-tomatine to treat cancer* (3552711)

YU ZHANG *Modulating lubrication using electric stimuli between lipid-bearing surfaces* (3553549)

Shelli Frey *Functionalized polystyrene nanoparticles alter the structure and stability of model cell membranes* (3557043)

Marisa Barilla *Discerning aggregation effects on polydopamine nanoparticle photochemical reactivity* (3556497)

Peter Palencia *Fundamental spectroscopic investigation of protic organic solvent thin films on silica surfaces* (3557718)

Shreyasi Sengupta *Bottom up synthesis of epigallocatechin gallate (EGCG) coated water soluble InSe nanostructures of varying phase and morphology and their impact on model membranes and organisms* (3557819)

Binh-An Nguyen *An in-situ investigation of the binding preferences of polar molecules with the UiO-type metal-organic framework* (3551231)

Dilip Paul *Investigation of the influence of acid-base sites on aldol condensation of acetaldehyde on mixed oxide surface* (3558301)

Claire Jones *Controlling oxygen vacancy levels in nanoceria for photochemical studies through aliovalent doping* (3552020)

Jonghae Youn *Mechanism of enhanced thermal transport and photoacoustic effect for silica-coated gold nanoparticles* (3552270)

Semiconductor Surfaces: from Chemistry and Function to Applications (Posters, COLL028A)

Alexa Adamkiewicz *Tip-induced manipulation of organic adsorbates on Si(001) from intermediates to final states and beyond* (3551708)

bharat tandon *Modulating plasmonics in doped metal oxide nanocrystals through chemical doping* (3531469)

Sci-Mix (Posters, COLL099A)

The Sci-Mix poster session will take place on Friday, April 9 from 6:00-7:30 pm. See the online program for the link to access the session.

Veronica Grebe *Quantifying order in optical micrographs of one- and two-dimensional anisotropic colloidal particle assemblies* (3537302)

Alexa Adamkiewicz *Tip-induced manipulation of organic adsorbates on Si(001) from intermediates to final states and beyond* (3551708)

Jessica Jenkins *Reaction of 2-propanol on SnO_2 (101) studied using ambient-pressure X-ray photoelectron spectroscopy* (3555978)

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Minjun Chen *Fabrication and optimisation of polyethylene glycol diacrylate microparticles using lego^R inspired microfluidic device* (3542149)

Fanfei Yu *Microdroplet generation and manipulation on a superhydrophobic surface* (3552435)

COLL Division Session Schedule

Session Half-Day	MON 4/5	TUE 4/6	WED 4/7	THU 4/8	FRI 4/9	MON 4/12	TUE 4/13	WED 4/14	THU 4/15	FRI 4/16
AM	COLL009A	IAD	Awards 2021	Awards 2020		COLL022A	COLL022C	COLL014A	COLL014B	COLL014F
PM	COLL009B	COLL023A	COLL023C			COLL022B	COLL025A	COLL014D	COLL014E	
EVE	COLL009C	COLL023B	COLL023D						COLL014C	
AM		COLL003B	COLL003D	COLL003F	COLL003H	COLL003I	COLL003J	COLL003K	COLL007B	COLL007D
PM		COLL003C		COLL003E	COLL003G				COLL007C	COLL007E
EVE	COLL003A							COLL007A		
AM							COLL012B			
PM		COLL024A				COLL012A	COLL012E	COLL012H		
EVE		COLL024B				COLL012C	COLL012D	COLL012F	COLL012G	
AM	COLL016A		COLL016B		COLL001B	COLL001D	COLL001I		COLL005A	COLL005D
PM	COLL016D	COLL016E	COLL016F	COLL001G	COLL001A	COLL001C	COLL001E		COLL005B	COLL005E
EVE	COLL016C	COLL016G				COLL001F	COLL001H		COLL005C	
AM	COLL027A	COLL027C				COLL018A		COLL018B		
PM	COLL027B					COLL018D	COLL018E	COLL018F	COLL018G	COLL018H
EVE						COLL018C	COLL018I			

	USA		Europe (central)	India	China	Australia (Eastern)
Time Zones:	PDT (UTC -7)	EDT (UTC -4)	CEST (UTC +2)	IST (UTC +5.5)	CST (UTC +8)	AEDT (UTC +11)
AM	9 AM - 12 PM	12 PM - 3 PM	6 PM - 9 PM	9:30 PM - 12:30 AM	12 AM - 3 AM	3 AM - 6 AM
PM	1 PM - 4 PM	4 PM - 7 PM	10 PM - 1 AM	1:30 AM - 4:30 AM	4 AM - 7 AM	7 AM - 10 AM
EVE	5 PM - 8 PM	8 PM - 11 PM	2 AM - 5 AM	5:30 AM - 8:30 AM	8 AM - 11 AM	11 AM - 2 PM
	Pacific Daylight	Eastern Daylight Time	Cent. European Summer Tin	India Standard Time	China Standard Time	Australian Eastern Daylight

Note that Daylight Savings time in the USA (including in the conference time zone, Pacific time) will begin on March 14, 2021.

Number of oral sessions			
9	COLL001		Self-assembly in polymer systems
Poster	COLL002		Self-assembly in polymer systems
11	COLL003		Biomembrane Synthesis, Structure, Mechanics, and Dynamics
Poster	COLL004		Biomembrane Synthesis, Structure, Mechanics, and Dynamics
5	COLL005		Colloidal Nanoparticle Synthesis and Assembly
Poster	COLL006		Colloidal Nanoparticle Synthesis and Assembly
5	COLL007		Colloidal hybrid materials intended for biological applications
Poster	COLL008		Colloidal hybrid materials intended for biological applications
3	COLL009		Macromolecular Design of (bio) Energy Materials and Safety Evaluation
Poster	COLL010		Macromolecular Design of (bio) Energy Materials and Safety Evaluation
1	COLL011	IAD	Industry-Academia Dialogue
8	COLL012		Nanomaterials
Poster	COLL013		Nanomaterials
6	COLL014		Surface Chemistry
Poster	COLL015		Surface Chemistry
7	COLL016		Biomaterials and Biointerfaces
Poster	COLL017		Biomaterials and Biointerfaces
9	COLL018		Basic Research in Colloids, Surfactants and Interfaces
Poster	COLL019		Basic Research in Colloids, Surfactants and Interfaces
1	COLL020	Awards 2020	ACS Award Lectures 2020
1	COLL021	Awards 2021	ACS Award Lectures 2021
3	COLL022		ACS Award in Surface Chemistry 2020 - Symposium in honor of Teri Odom
4	COLL023		ACS Award for Research at an Undergraduate Institution 2020 - Symposium in honor of Kerry Karukstis
2	COLL024		ACS Award in Colloid Chemistry 2021 - Symposium in honor of Emily Weiss
1	COLL025		ACS Award in Surface Chemistry 2021 - Symposium in honor of Vicki Grassian
Poster	COLL026		Fundamental Research in Colloids, Surfaces and Nanomaterials
3	COLL027		Semiconductor Surfaces: From Chemistry and Function to Applications
Poster	COLL028		Semiconductor Surfaces: from Chemistry and Function to Applications

79 total oral sessions

ACS Spring 2021 Schedule At a Glance

WEEK 1

Pacific Time Zone (PDT)	Monday April 5	Tuesday April 6	Wednesday April 7	Thursday April 8	Friday April 9
7:00 AM – 8:00 AM	7-9:30 AM Opening Session	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events
8:00 AM – 9:00 AM			Keynote Event		Kavli Foundation Emerging Leader in Chemistry Lecture
9:00 AM – 12:00 PM	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions
12:00 PM – 1:00 PM	Technical Division Networking Events	Technical Division Networking Events	ACS SOCIAL HOUR	Technical Division Networking Events	Technical Division Networking Events
1:00 PM – 4:00 PM	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions
4:00 PM – 5:00 PM	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events
5:00 PM – 8:00 PM	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	**Opening Reception 5-5:30 PM Sci-Mix 5:30 – 8:00 PM**
8:00 PM – 10:00 PM	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	
WEEK 2					
Pacific Time Zone	**Monday April 12**	**Tuesday April 13**	**Wednesday April 14**	**Thursday April 15**	**Friday April 16**
7:00 AM – 8:00 AM	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events
8:00 AM – 9:00 AM	Fred Kavli Innovations in Chemistry Lecture		**Keynote Event**		**Keynote Event**
9:00 AM – 12:00 PM	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions
12:00 PM – 1:00 PM	Technical Division Networking Events	**ACS SOCIAL HOUR**	Technical Division Networking Events	**ACS SOCIAL HOUR**	Technical Division Networking Events
1:00 PM – 4:00 PM	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions
4:00 PM – 5:00 PM	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events
5:00 PM – 8:00 PM	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	Concurrent Live Technical Sessions	**ACS RECEPTION 5 – 6:00 PM**
8:00 PM – 10:00 PM	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	
WEEK 3					
	Monday April 19	**Tuesday April 20**	**Wednesday April 21**	**Thursday April 22**	**Friday April 23**
9:00 AM – 10:00 AM			Live Interdivisional Poster Event		
9:00 AM – 5:00 PM	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events
24hr	On Demand Technical Sessions	On Demand Technical Sessions	On Demand Technical Sessions	On Demand Technical Sessions	On Demand Technical Sessions
WEEK 4					
	Monday April 26	**Tuesday April 27**	**Wednesday April 28**	**Thursday April 29**	**Friday April 30**
9:00 AM – 5:00 PM	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events	Technical Division Networking Events
24hr	On Demand Technical Sessions	On Demand Technical Sessions	On Demand Technical Sessions	On Demand Technical Sessions	On Demand Technical Sessions