

Division of Colloid and Surface Chemistry (COLL)
Technical Program

American Chemical Society National Meeting
March 20-24, 2022
San Diego, California and online

COLL Division Non-technical Events

COLL Division Business Meeting (Open)

Sunday, March 20, 6:30 PM – 7:00 PM (just before the poster session)
San Diego Convention Center, room 23C

COLL Division Lunch

Tuesday, March 22, 12:00 PM - 2:00 PM
San Diego Convention Center, room 8
The lunch will begin with remarks and recognition of awardees and volunteers.

COLL Division Technical Program

Technical sessions are listed in three types:

- **In-person:** speaker and audience are in-person, no online connection option. If speakers are not able to attend in person, they may pre-record their presentation for playback by session presider.
- **Virtual:** Speaker and audience are online.
- **Hybrid** (or “Broadcast”): An in-person room will be assigned in the convention center, but speakers and audience can also connect online and interact with the in-person attendees.

Note that all presenters (in-person or virtual) will be invited to upload their presentation to the “on-demand” presentation system.

Important: To connect to Virtual or Hybrid sessions, you must log in to the ACS online program using the same credentials with which you registered for the meeting. Links to virtual rooms will be available there. The most up-to-date and official program information is available in the online ACS program. This document is provided only as a convenience.

All times listed are Pacific Daylight Time (PDT, San Diego local time) (UTC/GMT –7 hours)

Fall 2022 ACS Meeting will be in Chicago: Abstract deadline is March 29!

COLL Division Program Chair: Steven Tait, Indiana University, tait@indiana.edu

Date Time	Session type Presenter name	Symposium title Presentation title	Location Duration	Session ID Abstract ID
Sunday 3/20/2022	Oral - Hybrid	Surface Science Young Investigators Material surface - analyte interactions with similar energy rates vary as quadratic function of topological polar surface area of analytes	Room 22 (SDCC)	COLL006A
8:00 AM	Chakraborty, Nirman	Adsorption of organophosphate nerve agent VX on the (101) surface of anatase titanium dioxide	20	3649859
8:20 AM	Bazargan, Gloria	Achieving the promise of efficient dropwise condensation	20	3652111
8:40 AM	Antao, Dion	DFT study on the effects of vicinal edge and terrace sites on N ₂ H ₄ -OH coadsorption system: Ni(211) case	20	3652552
9:00 AM	Hidayat, Novianto	Point defects at rutile TiO ₂ : From minority to gamechangers in bifunctional oxide (photo-)catalysis	15	3653387
9:15 AM	Mohrhusen, Lars	First-principles design of a single-atom-alloy propane dehydrogenation catalyst	15	3654309
9:30 AM	Hannagan, Ryan	Investigation of (001), (010), and (100) surface termination and surface energies of the Zintl Ca ₅ Ga ₂ Sb ₆	15	3658635
9:45 AM	Noel, Monique	Mapping ligand adsorption affinity and cooperativity in solution at the sub-particle resolution	15	3661385
10:40 AM	Ye, Rong (Rocky)	In situ scanning tunneling microscopy for the study of model catalysts	20	3653238
11:00 AM	Wenzel, Sabine	Copper single crystal electrocatalysts: Interfacial structure and reactivity	20	3653381
11:20 AM	Auer, Andrea	Design of catalysts realized by materials theory and machine learning	20	3653561
11:40 AM	Li, Hao		20	3655412
Sunday 3/20/2022	Oral - Hybrid	ACS Award in Surface Chemistry 2022: Symposium in honor of Miquel Salmeron Well-defined mixed-oxide and metal-oxide interfaces for catalysis using ALD	Room 22 (SDCC)	COLL009A
2:00 PM	Zaera, Francisco	Mass-selected cluster for conversion of sustainable energy	30	3640224
2:30 PM	Chorkendorff, Ib	Characterization of the MnO _x promoted silica supported Co nanoparticles used for Fischer-Tropsch synthesis	30	3656203
3:00 PM	Bell, Alexis	Single atom catalyst Pt ₁ /ZnO for methanol partial oxidation: Insights into reaction mechanisms from DFT and experiments	30	3656930
3:30 PM	Rahman, Talat	Pt stepped surfaces under a pressure of CO: Adsorbed layer and surface restructuring	30	3658801
4:00 PM	Sautet, Philippe	Material science of interfacial catalysts	30	3661043
4:30 PM	Schloegl, Robert	Activation and conversion of CO ₂ to methanol on inverse oxide/metal catalysts	30	3658169
5:00 PM	Rodriguez, Jose	Tuning the properties of copper catalysts based on molecular in situ studies of model systems	30	3653877
5:30 PM	Stacchiola, Dario		30	3653504
Sunday 3/20/2022	Oral - Hybrid	Colloid, Nanomaterial, and Interface Chemistry Research at Primarily Undergraduate Institutions Modulation of lipid-surface interactions by group I cations at different salt concentrations	Room 23A (SDCC)	COLL010A
8:00 AM	Kett, Peter	Hybrid materials from the cure accelerated grafting thermal ring-opening polymerization of benzoxazines in blends with sulfonyl-ester materials	30	3642544
8:30 AM	Rider, David		30	3662318

9:00 AM	Labunsky, Daniel Wolcott, Abraham	Boron shell synthesis and anomalous carbon-boron bond formation on nanoscale diamond surfaces using trigonal boron compounds	20	3661306
9:20 AM	Knepper, Allen	Biofouling resistant polypyrrole films for biologically-triggered dopant release	20	3655591
9:55 AM	Flagg, Sadie	Understanding the impact of BHT inhibitor on the microstructure of spun-cast nanoporous films of PMMA exhibiting high surface areas	20	3648110
10:15 AM	Bowman, Madelynn	Engineered carbon nanoparticle /chitosan composite materials as multi-functional and tunable adsorbents for water purification	20	3661311
10:35 AM	Destino, Joel	Hybrid germania-silica colloids and their application as 3D-printed glass precursors	30	3644594
11:05 AM	Mosby, Brian	Strategies for the preparation of functional materials from layered zirconium phosphates	30	3658719
Sunday 3/20/2022	Oral - Hybrid	Colloidal Hybrid Materials Intended for Biological Applications	Room 23B (SDCC)	COLL025A
8:20 AM	Ramon, Eva	Nanotransformation of marine derived-materials into added value ingredients for the cosmeceutical field	20	3653559
8:40 AM	GOGOI, MADHULEKHA	Quantum dot complex of ZnS and Pd(II) complex for selective detection of pyrophosphate anion with fluorescence quenching	20	3655173
9:00 AM	Dewey, Hannah	Development of near-infrared fluorescent nanosensors for the detection of COVID-19 disinfectants	20	3646459
9:20 AM	Yim, Wonjun	Gold nanorod–melanin hybrids for enhanced and prolonged photoacoustic imaging in the near-infrared-II window	20	3646794
9:40 AM	Feliu, Neus	Nanoparticles in biological environment	20	3655918
10:00 AM	Spanjers, järvi	Zwitterionic polymer-lipid hybrid vesicles	20	3649191
10:20 AM	Morena, Angela Gala	Phenolated-lignin nanoparticles as crosslinking agents in nanocomposite hydrogels for biomedical applications	20	3650830
10:40 AM	Monreal, Marina	Magnetically driven polymer/enzyme layer-by-layer coated bimetallic nanoparticles as a promising alternative to manage bacterial infections	20	3650907
11:00 AM	Kim, Taeho	Development of self-assembled iron oxide nanochains as sensitive magnetic particle imaging agents	20	3650987
11:20 AM	Wang, Congzhou Liu, Jinyuan	Transmembrane MUC18 targeted polydopamine nanoparticles and a mild photothermal effect synergistically disrupt actin cytoskeleton and migration of cancer cells	20	3653036
11:40 AM	Riahin, Connor	Antibody functionalized near-infrared emitting polymer dots for super resolution imaging of membrane receptors in plant cells	20	3653824
Sunday 3/20/2022	Oral - Hybrid	Colloidal Hybrid Materials Intended for Biological Applications	Room 23A (SDCC)	COLL025C
2:00 PM	Carril, Monica	Synthesis of water soluble fluorinated gold nanoparticles and in vivo 19F MRS/MRI	30	3646886
2:30 PM	Soliman, Mahmoud	Glycans coated nanoparticles as a biocompatible shield to increase nanoparticles' colloidal stability and modulate their biological response	30	3652343
3:20 PM	Xia, Xiaohu	Bioreceptors-conjugated catalytic nanoparticles for in vitro diagnostics	20	3655952
3:40 PM	Keng, Pei Yuin	Assembly and disassembly of Boron nanoparticles in potentiating anti-cancer treatment with minimal toxicity	20	3655977

4:00 PM	Reimhult, Erik	Lysosome-triggered, cholesterol-mopping nanoparticles for treatment of neurodegenerative diseases	30	3655375
4:30 PM	Henriksen, Malou	Combining SERS with 3D matrixes to better understand cellular behaviour	30	3656271
5:00 PM	Ivanova, Aleksandra	Nano-enabled hybrid materials for controlling bacterial infections and resistance development	20	3656246
5:20 PM	Ivanova, Kristina	Engineering targeted nano-hybrids to treat Staphylococcus aureus infections and maintain microbiome balance	20	3656398
5:40 PM	Lyons, Trevor	Versatile synthesis of paramagnetic metal-oxo cluster-polyacrylamide and polystyrene nanocomposites and characterization as potential MRI contrast agents	20	3657142
Sunday 3/20/2022	Oral - Hybrid	Perspective of Soft Matter Research in Space: Present & Future	Room 23B (SDCC)	COLL036A
2:10 PM	Meyer, Bill	Light microscopy module: A facility overview history and science	40	3703707
2:50 PM	Lynch, Matthew	Measurements on the ISS to inspire and enable the creation of transformative products	20	3662412
3:10 PM	Bharti, Bhuvnesh	Dynamic and competitive interactions via the dual nature of ferrofluids	20	3656832
3:50 PM	Chaikin, Paul	Recent experiments on hard sphere colloidal crystallization in microgravity on the international space station	40	3703722
4:30 PM	Savin, Kenneth	ISS national lab and in space production applications focused on soft matter and meta materials	20	3642213
4:50 PM	Chiaromonte, Francis	Overview of the current and future NASA microgravity complex fluids/soft matter program	20	3703725
Sunday 3/20/2022	Oral - In-person	Colloid, Nanomaterial, and Interface Chemistry Research at Primarily Undergraduate Institutions	Room 20BCD Theater 4 (SDCC)	COLL010B
2:00 PM	Aligholizadeh, Dariush Devadas, Mary Sajini	Manipulation of the metal crystal lattice to synthesize anisotropic nanoparticles	20	3655583
2:20 PM	Hunter, Rebecca	Electrospinning of conductive and biocompatible nanofibrous materials for electrochemical sensing applications	30	3652634
2:50 PM	Niezgoda, Jeffrey	On-particle ligand modification: Lessons learned in the pursuit of new quantum Dot syntheses that utilize functionalized ligands	30	3648159
3:20 PM	Dang, Quang Minh	Using NMR titrations, ¹⁹ F- ¹ H HOESY NMR, and DFT computational modeling to assess halogen-bonding strength as a function of molecular structure and exploring halogen-bonding in molecular-detection nanoparticles	20	3638910
3:55 PM	Wolcott, Abraham	Study of the molecular decoration and suppression of the diamond core-hole exciton by an ultrathin dielectric coating with X-ray absorption spectroscopy	20	3660224
4:15 PM	Groves, Michael	Modification of acidic properties of OH-functional groups in physical hole defects of graphene: a computational study	30	3659058
4:45 PM	Tribe, Lorena	Computational studies of adsorption to surfaces in freshwater coastal carbon dynamics	30	3657030
5:15 PM	Stehle, Yijing	Dielectric and mechanical property of graphene oxide membrane: Effect of aluminum cation modification	30	3651712
Sunday 3/20/2022	Oral - In-person	Nanomaterials	Room 20BCD Theater 5 (SDCC)	COLL012B

2:00 PM	Ivanova, Aleksandra	Ultrasound-assisted synthesis of farnesol nanoparticles for controlling microbial infections and resistance development	20	3650906
2:20 PM	Brown, Chris	Tuneable synthetic reduced graphene oxide scaffolds elicit high levels of three-dimensional glioblastoma interconnectivity in vitro	20	3656597
2:40 PM	Park, Heekyeong	Nanoscale patterned 2-dimensional MoS ₂ bio-FET for ultrasensitive, selective, and reliable biomolecular detection	20	3659450
3:00 PM	Sultana, Nigar	Developing carbon nanotube-based pH sensor	20	3661433
3:20 PM	Alafeef, Maha	Nanosensor-based hafnium nanoparticles for the detection of SARS-CoV-2 with yoctomole sensitivity	20	3661878
4:00 PM	Chen, Gang	Colorimetric glucose monitoring using one-dimensional plasmonic gold nanoparticles	20	3662114
4:20 PM	Srivastava, Indrajit Jones, Jamie	Biomimetic SERS nanoparticles coated with red blood cell membranes with improved dispersibility for early disease detections	20	3662548
4:40 PM	Luo, Shao-Xiong Lennon	Size-limited metal nanoparticles supported by porous poly(arylene ether)s and single-walled carbon nanotubes (SWCNTs) as selective and robust hydrogen sensors	20	3651825
5:00 PM	Gul, Gulsah	Understanding the interactions of functionalized carbon nanotubes with lipid bilayers	20	3647392
5:20 PM	Ivanov, Sergei	General synthetic approach to nanocrystalline stannides and antimonides of Cr-Co	20	3647133
5:40 PM	Bose, Riya	Encapsulation of perovskite nanocrystal solids using metal oxides: A closer look into optical properties	20	3640428
Sunday 3/20/2022	Oral - In-person	Basic Research in Colloids, Surfactants and Interfaces	Room 23C (SDCC)	COLL018B
2:00 PM	Park, Kyoungweon	Tuning the solvation of gold nanorods for Au-C functionalization	20	3661644
2:20 PM	Franck, John	Automated nuclear and electron-nuclear magnetic resonance relaxometry probes the dynamics of confined water molecules	20	3662124
2:40 PM	Jani, Pallav	Binding interactions at the bisphenol A (BPA) epoxy coating – metal oxide interface: An isothermal titration calorimetry study	20	3645016
3:00 PM	Marchioro, Arianna	Surface characterization of colloidal oxide nanoparticles with second harmonic scattering: Ion-specific effects	20	3649267
3:20 PM	Wang, Hanyu	Liquids reflectometer at spallation neutron source	20	3647183
3:40 PM	Fairhurst, David	Using low-field NMR relaxation to optimise particulate dispersions of silica	20	3645706
4:00 PM	Xu, Xiaohan	Two-stage deprotonation of polyoxometalates with lanthanide heteroatoms	20	3656609
4:20 PM	Meyer, Sean	Absolute size dependence of light-to-heat conversion by gold nanorods	20	3656734
4:40 PM	Singh, Karnika	Interaction of active colloids with passive tracers	20	3642793
Sunday 3/20/2022	Oral - In-person	Basic Research in Colloids, Surfactants and Interfaces	Room 20BCD Theater 4 (SDCC)	COLL018D
8:20 AM	Ford, Rachel	Investigating the interactions between poloxamer 188 and preservative molecules in protein formulations	20	3651111
8:40 AM	Raee, Ehsan	Chiral discrimination induced by non-covalent interactions between amino acids and chiral macroions	20	3645348
9:00 AM	bhargava, shalaka	Evaporation and instability in a tear film	20	3647503

9:40 AM	Mallia, Ajay	Extraction, purification, self-assembly, and aggregation studies of cyclotides	20	3662236
10:00 AM	Renggli, Damian	Crowded phospholipid monolayers are fluid as measured by interfacial rheology	20	3660352
10:20 AM	Basu, Saptarshi	Vapor Mediation: A potential tool to control multiscale crystallization and bacterial aggregation in sessile bio-fluid droplet deposits	20	3657651
10:40 AM	Graham, Kristin	Polymerization of actin inside liquid-like protein droplets drives spontaneous actin bundling	20	3647830
11:00 AM	Uskokovic, Vuk	SARS-CoV-2: Molecular interaction specifics viewed through the prism of nanotechnologies	20	3671813
Sunday 3/20/2022	Oral - In-person	Colloidal Nanoparticle Synthesis and Assembly	Room 20BCD Theater 5 (SDCC)	COLL021A
8:00 AM	Kotov, Nicholas	Chiral nanostructures	30	3648524
8:30 AM	Wang, Xingzhi	Variational autoencoders for information extraction from high-resolution transmission electron microscopy data of semiconductor nanocrystals	20	3643443
8:50 AM	Wen, Je-Ruei	Crystal phase and size-controllable synthesis of CsPbBr ₃ nanorods	20	3645914
9:10 AM	Qian, Caroline	Photochemically-triggered formation of 3D epitaxially-fused colloidal quantum dot superlattices	20	3646646
9:40 AM	Yun, Hongseok	Effective softness-dependent self-assembly of polystyrene-grafted Au nanocrystals	20	3646843
10:00 AM	Vinnacombe-Willson, Gail	Plasmonic substrates through surface chemical patterning and direct bottom-up synthesis of gold nanoparticles	20	3647028
10:20 AM	McGlothlin, Connor	Inorganic self-replicating nanoparticles	20	3652596
10:40 AM	Wang, Yi	Kinetically controlled assembly of multicomponent polymer-grafted nanocrystals into ordered superstructures using solvent vapor annealing	20	3652641
Sunday 3/20/2022	Oral - In-person	Colloidal Nanoparticle Synthesis and Assembly	Room 24A (SDCC)	COLL021B
2:00 PM	Chen, Ou	Bulk grain-boundary materials through pressure-processing of nanocrystal	30	3647174
2:30 PM	Yin, Yadong	Confined growth of plasmonic nanostructures and their transformation and assembly	30	3650436
3:00 PM	Wang, Wei	Controlled formation and application of three-dimensional periodic porous carbon structures	30	3661920
3:40 PM	ABIODUN, SAKIRU	On the mechanism of anion exchange in halide perovskite quantum dot solutions	20	3662453
4:00 PM	Hernandez-Pagan, Emil	Cyrene as a "green" solvent for nanoparticles synthesis	20	3661529
4:20 PM	Park, Kyoungweon	Scalable synthesis of infrared absorbing gold nanowires	20	3661295
4:40 PM	Parobek, David	Accessing different stoichiometric phases of Cr – tellurides through solution phase synthesis	20	3660835
Sunday 3/20/2022	Oral - In-person	Active and Responsive Interfaces	Room 23C (SDCC)	COLL023A
8:00 AM	Velev, Orlin	AC field powered propulsion and frequency-controlled steering of engineered metallo-dielectric microparticles	17	3657210
8:17 AM	Bharti, Bhuvnesh	Active motion of patchy microellipsoids in electric field	17	3656817
8:34 AM	Al Harraq, Ahmed	Multipolar assembly of anisotropic clusters from Janus and isotropic colloids	17	3656766
8:51 AM	Das, Sambaeta	Bubble propelled active particles for assembly at interfaces	17	3695156

9:08 AM	Liu, Mingzhu	Transformable microarrays of shape reconfigurable microparticles	17	3648849
9:25 AM	Li, Wangxiang	Writing light-powered active nanostructures on molecular crystals using electron beam lithography	17	3657123
9:42 AM	Zholdassov, Yerzhan	Stimuli-responsive 6-dimensional polymer brush hypersurfaces	17	3657319
9:59 AM	Fontaine, Sarah Ruehe, Juergen	Fabrication of magnetic micropillars for cell mechanotransduction studies	17	3656558
10:16 AM	Manor, Ofer	Surface acoustic wave mitigation of precipitate deposition on a solid surface – an active strategy for self cleaning surfacs	17	3650551
10:33 AM	Beyazkilog, Pinar	Photothermal dye-doped liquid crystals for NIR-responsive release applications	17	3643047
10:50 AM	Demers, Steven	FRET based biosensors for CBRN threat detection	17	3652545
11:07 AM	Fan, Donglei	Light-controlled reconfigurable micromotor swarms in an electric field	17	3675368
11:24 AM	Pesika, Noshir	Anomalous potential-dependent friction on Au(111) measured by AFM	17	3675433
11:41 AM	Mertens, Stijn	Ambient bistable single dipole switching in a molecular monolayer	17	3677663
Sunday 3/20/2022	Oral - In-person	Nanomaterials Using Colloidal Synthesis for Energy Applications and Catalysis	Room 24A (SDCC)	COLL038A
10:00 AM	Mondal, Debayan	Shape controlled emissive properties of Mn-doped CsPbBr3 nanocrystals	30	3649972
10:30 AM	Bayles, Aaron	Al@TiO2 core-shell structures for hot carrier photocatalysis	30	3659616
Sunday 3/20/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 7 (Virtual Room)	COLL004A
10:00 AM	Chen, Zhan	Molecular interactions between peptides and model cell membranes probed by sum frequency generation vibrational spectroscopy	25	3656439
10:25 AM	Lecommandoux, Sebastien	Biomimetic synthetic lipoproteins as model membranes with controlled permeability	25	3657974
10:50 AM	Aleksanyan, Mina	Modulating membrane shape and mechanics by light	25	3649610
11:15 AM	Mangiarotti, Agustin	Liquid-liquid phase separation modulates membrane structure and hydration	25	3645967
11:40 AM	Robinson, Tom	High-throughput production of multi-compartment synthetic eukaryotic cells	25	3659812
12:05 PM	Pabst, Georg	Intrinsic lipid curvatures: Experimental evidence for non-linear and non-additive mixing	25	3651920
12:30 PM	Semeraro, Enrico Federico	Bridging the activity of lactoferricin derivatives in E. coli and lipid-only membranes: Partitioning and kinetics	25	3653400
Sunday 3/20/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 5 (Virtual Room)	COLL004B
4:00 PM	Speer, Daniel	Surfactant-mediated destruction of myelin figures	25	3660657
4:25 PM	Hamada, Naomi	Investigation of miscibility transitions in hybrid biomembranes with fluorescence spectroscopy	25	3646792
4:50 PM	Sambre, Pallavi	Polarized deformations: Response of giant vesicles to osmotic deflation under confinement	25	3648697
5:15 PM	Morigaki, Kenichi	Hybrid membrane of reconstituted thylakoid membrane and patterned polymeric lipid bilayer scaffold	25	3655967

5:40 PM	Goh, Melvin	Non-raft microdomain formation in cholesterol-containing lipid bilayers induced by polyunsaturated phosphatidylethanolamine	25	3658058
6:05 PM	Sharma, Pradyumn	Interactions of surfactants with the bacterial cell wall and inner membrane: Revealing the link between aggregation and antimicrobial activity	25	3649274
6:30 PM	Verma, Anant	Understanding the loss of CXCR4-mediated signalling in the presence of oxysterols	25	3658405
Sunday 3/20/2022	Poster - In-person	Colloidal Gels	Exhibit Hall C (SDCC)	COLL003A
7:00 PM	Deptula, Alexander	Probing interfacial structural dynamics of charged glassy gels	0	3638721
7:00 PM	Green, Allison	Influence of surface functionalization on the structure of nanocrystal gels assembled with depletion attractions	0	3653910
7:00 PM	Lin, Emily	Effects of ligand coverage and linker concentration on the structure of linker-mediated nanocrystal gels	0	3653952
7:00 PM	S´nchez, Javier	Location of the gel-like boundary in patchy colloidal dispersions: Rigidity percolation, structure, and particle dynamics	0	3655073
7:00 PM	Wilcoxson, Tanner	Wertheim theory predictions for phase behavior and bonding motifs of linker-mediated colloidal gel formers	0	3664301
Sunday 3/20/2022	Poster - In-person	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Exhibit Hall C (SDCC)	COLL005A
7:00 PM	Cavazos, Andres	Role for oxidized phospholipids in regulating membrane architecture?	0	3652088
7:00 PM	Brown, Michael	Molecular simulations and NMR spectroscopy reveal antimicrobial peptide membrane interactions	0	3653154
7:00 PM	Brown, Michael	Osmotic stress and crowding in G-protein-coupled receptor activation	0	3655933
7:00 PM	Doktorova, Milka	New door to membrane mechanics: Collective lipid dynamics inform bilayer bending rigidity	0	3659765
Sunday 3/20/2022	Poster - In-person	Colloid, Nanomaterial, and Interface Chemistry Research at Primarily Undergraduate Institutions	Exhibit Hall C (SDCC)	COLL011A
7:00 PM	Le-Vasicek, Thad	β -glucosidase immobilized on iron oxide nanoparticle: Impacts of enzyme load and functional group density on specific activity and storage stability	0	3638698
7:00 PM	Peterson, Gabriela	Observing membrane interactions of American propolis constituents with lipids utilizing Langmuir monolayers	0	3639490
7:00 PM	Schauer, Ben Lam, Theresa	Influence of mannitol on GeO ₂ colloid growth and stability	0	3648539
7:00 PM	Dworkin, Jennie Popnikolova, Betina Dang, Quang Minh	Investigation of β 2-microglobulin networking over gold-nanoparticle surfaces	0	3649039
7:00 PM	Gilmore, Samuel Lalwani, Karthik	Functionalized gold nanoparticles with halogen bonding capability – an avenue for molecular detection schemes	0	3651665
7:00 PM	Ruiz, Angel	Development of MIL-88B(Fe) thin films for applications in drug eluting stents	0	3652362
7:00 PM	Dao, Benjamin Cuccurullo, Anthony	Exploring the formation of zeolitic imidazolate framework-8 films on gold surfaces via self-assembled monolayers	0	3652396
7:00 PM	De Leon Gonzalez, Jose	Creating conductive polymer nanofibers for biological sensing applications	0	3652412

7:00 PM	Holt, Macey Karam, Marie	Creation of defects in UiO-66 via ball-milling	0	3652833
7:00 PM	Burkert, Seth	Iron single atom catalyst as phenylalanine hydroxylase mimic	0	3654550
7:00 PM	Miller, John	Post-synthetic exchange in UiO-66 via ball-milling	0	3654870
7:00 PM	Zaczyk, Misty Santariello, Jack Lin, Zichao Hays, Jackson seram, alexander	Synthesis of uniform gold nanoparticle embedded peptoid nanosheets	0	3655470
7:00 PM	Thomas, Joshua	Investigation of the nano-size dependent an affinity of the SARS-CoV-2 spike protein to the gold-colloid	0	3656896
7:00 PM	Qualls, Hayden	Fabrication and evaluation of screen-printed graphene electrodes for humidity sensors	0	3657110
7:00 PM	Narbay, Elif	Tunable resistive pulse sensing of ultra-soft microgel deformation and translocation	0	3657242
7:00 PM	Bowser, Jacob	Development of silica-xerogel-based optical humidity sensors	0	3657330
7:00 PM	Pandit, Sanika	Ultra-Low Crosslinked Microgel Based Bioinks	0	3657433
7:00 PM	Petner, Victoria	As-synthesized alkyne-coated CdSe quantum Dots for site-directed nanoparticle-substrate chemical linkage	0	3658882
7:00 PM	Copeland, Abigail Pickett, Hannah	Evaluation of polymer surface modification as an inhibitor of methicillin-resistant Staphylococcus aureus (MRSA) biofilm formation	0	3659582
7:00 PM	Capron, Margeaux	Translucent dye-doped silica aerogels: Aesthetic approaches to window applications	0	3659704
7:00 PM	Hanigan-Diebel, Jennifer	Mixed-monolayer gold nanoparticle interactions with bovine serum albumin	0	3660850
7:00 PM	Carroll, Matthias	Mixed-monolayer gold nanoparticles: Compositional analysis with an internal standard ¹ H-NMR experiment	0	3661184
7:00 PM	Afzal, Hamayl Gourley, Bridget	Urea in confinement: Investigation of size and loading limit study	0	3661362
7:00 PM	Strattan, Ricci	Hydrogen peroxide synthesis and the influence of graphene acidity of OH groups from physical hole defects	0	3661363
7:00 PM	Patrick, Samantha	Multi-functional polymer-nanoparticle composites for surface-enhanced Raman scattering sensing applications	0	3661542
7:00 PM	Del Rosario, Lauren	Co-electrodeposition of nickel and platinum nanowires for methanol and ethanol oxidation	0	3661873
7:00 PM	Klinger, Bailey	Synthesis of SERS-active silica coated gold/silver alloy nanostructures	0	3662169
7:00 PM	Flores, Brenda Jaime, Susan	Systematic search of physical hole defects in graphene using an evolutionary algorithm	0	3666220
7:00 PM	Borchardt, Christian	Time-dependent spectroscopic study of sol-gel germania colloid growth	0	3667545
Sunday 3/20/2022	Poster - In-person	Nanomaterials	Exhibit Hall C (SDCC)	COLL013A
7:00 PM	Wang, Chuanyu	Au@Ag nanobipyramids based nanoplasmonic sandwich immunoassay for tumor-derived exosome detection and exosomal PD-L1 profiling	0	3641542
7:00 PM	Zhang, Shu	Double-helical silica nanotube structures templated by mixed pluronic surfactants	0	3642192
7:00 PM	Knecht, Tawney	Understanding metal oxide nanocrystal growth using a continuous addition synthesis	0	3642449

	7:00 PM	Rodriguez, Ricky	ZIF-8 coated stainless steel meshes with colloiddally capped silver nanoparticles (CC Ag NPs) for removal of organic dyes and bacterial species	0	3649775
	7:00 PM	Jahinge, Tiron Forbes, Tori	Effects of temperature on water ordering within metal-organic nanotubes	0	3654638
	7:00 PM	Tan, Lauren	Investigating surface ligand effects on electronic structure of II-VI semiconductor nanoplatelets	0	3655903
	7:00 PM	Greenwood, Gus	Tuning nanoscale friction at the graphene interface using an FET-like device	0	3656661
	7:00 PM	Bashant, Caleb	Laser reducing graphene oxide for supercapacitor and sensor applications	0	3660223
	7:00 PM	Spanedda, Nicole	Calculation of ionization energies and electron affinities of quantum dots and nanowires	0	3660748
	7:00 PM	Van Patten, Paul	Identification and quantitation of bound surface ligands on semiconductor quantum dots using thermal desorption-direct analysis in real-time mass spectrometry (TD-DART-MS)	0	3661151
	7:00 PM	O'Brien, Konor	A study into the mechanisms in the synthesis of Co ₃ O ₄ nanotubes	0	3661421
	7:00 PM	Banerjee, Santanu	Application of anti-microbial peptide attached quantum dot nanoplatfrom for biosensing and treatment of drug resistant bacteria	0	3662477
Sunday 3/20/2022		Poster - In-person	Surface Chemistry	Exhibit Hall C (SDCC)	COLL015A
	7:00 PM	Haris, Uroob	Patterned chemical surface functionalization for self-propelled micromotors	0	3649595
	7:00 PM	Wilczek, Luke	"Off-surface" cross-linking of self-assembled monolayers: Reaction without morphology perturbation	0	3650054
	7:00 PM	ogunlusi, Tosin	Systematic control of thiol groups on proteins for manipulating interaction with gold nanoparticles	0	3652673
	7:00 PM	Gu, Kai	Surface preparation for single-molecule imaging in organic solvents	0	3654251
	7:00 PM	Hennig, Hannah	Nickel phosphide photocatalyst development for CO ₂ -derived solar fuels	0	3654754
	7:00 PM	Deeleepojananan, Cholaphan	Mechanistic study of surface-initiated reactions of household bleach and terpene cleaning products on indoor relevant surfaces	0	3657259
	7:00 PM	Wasim, Eman	Reactivity and selectivity of single atom catalysts on metal oxide surfaces for the selective hydrogenation of acetylene	0	3658409
	7:00 PM	Van Matre, Stetson	Development of economical, low cost wax-on-plastic microfluidic viscometer	0	3659396
	7:00 PM	HOSSAIN, Kazi Zihan	Facile fabrication of extremely wet surface harnessing 5nm-thick gallium oxide on liquid metal	0	3659540
	7:00 PM	Sweet, Amelia	Adsorption of organic redox molecules to the Ag (111) surface	0	3661852
Sunday 3/20/2022		Poster - In-person	Biomaterials and Biointerfaces	Exhibit Hall C (SDCC)	COLL017A
	7:00 PM	McClain, Sophia	Complex lipid-coated gold nanoparticles for the study of alpha-synuclein/membrane interactions	0	3645736
	7:00 PM	Kummer, Nico	Engineering amyloid stabilized air-water interfaces for functional coatings	0	3649224
	7:00 PM	Hoang, Khoi Nguyen	Au-coated iron oxide nanoparticles for proteomic analysis	0	3650390

7:00 PM	Kwon, Jiheon	Enhancing mechanical properties of agarose hydrogels via mineralization	0	3657083
7:00 PM	Fernandes, Natalia	Antibacterial activity of an eco-friendly biosurfactant produced by yeast	0	3657125
7:00 PM	Stegmann, Amy	De novo designed protein templates for directing mineralization of titanium oxides nanoparticles	0	3660225
7:00 PM	Hong, Celestine	Two-component, click-functionalized hemostat for the treatment of internal hemorrhage	0	3662149
7:00 PM	Pho, Thomas	Engineering coatings for protein nanoclusters to understand intranasal biological barriers	0	3662300
Sunday 3/20/2022	Poster - In-person	Basic Research in Colloids, Surfactants and Interfaces Probing hydrophobic interactions between polymer surfaces and air bubbles or oil droplets: Effects of molecular weight and surfactants	Exhibit Hall C (SDCC)	COLL019A
7:00 PM	Yang, Diling	Colloidal aggregation structure and temperature dependency of poly(vinyl alcohol) PVA in aqueous solution investigated by molecular dynamics simulations	0	3656702
7:00 PM	Natarajan, Upendra		0	3669369
Sunday 3/20/2022	Poster - In-person	Fundamental Research in Colloids, Surfaces and Nanomaterials Sensing platform for heavy metal ion detection with a bioinspired approach	Exhibit Hall C (SDCC)	COLL020A
7:00 PM	Wei, Hong	Mixed-metal aerogels for catalytic converter applications: A closer look	0	3637454
7:00 PM	Barry, Patrick	Thickness, morphology and stability of hydrophilic polymers prepared on silicon wafers via spin coating	0	3637624
7:00 PM	Alvarez, Carolina Poworoznek, Carlie	Forces between mica and end-grafted statistical copolymers of sulfobetaine and oligoethylene glycol in aqueous electrolyte solutions	0	3641684
7:00 PM	Ahmed, Syeda Tajin	Nucleotide adsorption onto TiO ₂ , alpha-Fe ₂ O ₃ , and FeOOH nanoparticles: Probing nano-bio interactions as a function of nanoparticle composition and pH	0	3644451
7:00 PM	Quirk, Eleanor	Electrical double layer of ionic liquids on graphene electrode	0	3651550
7:00 PM	Zheng, Qianlu	Investigation of adsorption and desorption of poly(vinyl alcohol) from aqueous solution	0	3652876
7:00 PM	Griffin, Julia	One-step synthesis of multiphase polymer colloids	0	3654002
7:00 PM	Hamilton, Heather	Damage through repeated low-level exposure: Defect accumulation in gold nanocrystals through non-hydrostatic pressure cycling	0	3655433
7:00 PM	Böttnner, Jonas	Effective hard-sphere interactions between colloidal metal oxide nanocrystals by virial coefficient measurements	0	3656811
7:00 PM	Ofosu, Charles	Hydrophobically modified prodrugs to improve control, stability and drug loading of lipid-based nanoparticles	0	3657657
7:00 PM	Hogarth, Cameron	Mechanistic study of secondary cation release from the (001) surface of Li(NiyMnzCo1-y-z)O ₂	0	3658576
7:00 PM	Rivera, Victoria	Rational design of phosphonate ligands for upconverting nanoparticles in biological applications	0	3661333
7:00 PM	Hrovat, David	Synthesis inverse diamond lattice by sol-gel method	0	3662053
7:00 PM	Shen, Xinhang	ROS induced structural collapse of alternatively connected gold and silver nano-branches	0	3677702
7:00 PM	Choi, Hyunjun	FeCl ₃ species identification at air-aqueous interface using second harmonic generation spectroscopy	0	3691094
7:00 PM	Ng, Ka Chon		0	3694472

Sunday 3/20/2022	Poster - In-person	Colloidal Nanoparticle Synthesis and Assembly	Exhibit Hall C (SDCC)	COLL022A
7:00 PM	Le, Natasha	Gold nanostars: Synthesis, functionalization, and application	0	3646741
7:00 PM	KIM, YUJIN	Patchy colloidal clusters with broken symmetry	0	3647461
7:00 PM	Baradaran Kayyal, Tohid	Dendronized gold nanorattles as multifunctional hybrid nanoparticles	0	3654033
7:00 PM	PARK, SEONG HUN	Self-assembled clusters of ultra-smooth gold nanospheres	0	3656045
7:00 PM	Lee, Ki Hyun	Holey graphene oxide membranes with dual nano-capillaries for efficient water evaporation-induced energy harvesting	0	3656363
7:00 PM	Ji, Yoonbin	DNA microstructure-templated growth of iron oxide nanoparticles for colorimetric detection	0	3656403
7:00 PM	Lowrance, Chanda	Controlled assembly of gold nanobipyramids and CdSe/CdS quantum Dot	0	3657437
7:00 PM	Jeong, Woojae	Metal/metal oxide decorated graphene fiber for highly NO ₂ sensing performance	0	3657872
7:00 PM	Shin, Hwansoo	High performance Ti ₃ C ₂ T _x MXene fibers by aligning deformable MXene gel	0	3657908
7:00 PM	Wee, Wynn	Metallic nanomaterial decorated silk thin films as biocompatible SERS substrate	0	3661221
Sunday 3/20/2022	Poster - In-person	Active and Responsive Interfaces	Exhibit Hall C (SDCC)	COLL024A
7:00 PM	Sahoo, Subhangi	Comparative study of mechanical, self-adhesive, self-healable properties of a hybrid hydrogel based on chitosan, tetraethylene glycol and polyacrylic acid	0	3650111
7:00 PM	Sadeghi, Kambiz	UV-curable phenylenediamine coatings as a non-migratory antioxidant packaging film	0	3657495
7:00 PM	Kwon, Seung Ho Yun, Hongseok	Light-responsive, shape-switchable block copolymer particles using azobenzene-grated Au nanoparticle surfactants	0	3657781
Sunday 3/20/2022	Poster - In-person	Colloidal Hybrid Materials Intended for Biological Applications	Exhibit Hall C (SDCC)	COLL026A
7:00 PM	Arabzadeh Nosratabad, Neda	N-heterocyclic carbene-induced etching of gold nanoparticles and growth of fluorescent gold nanoclusters	0	3648368
7:00 PM	Su´rez L´pez, Rosa	Applying coarse-grained models to obtain Janus nanoparticle distributions	0	3648443
7:00 PM	Tapia Hernandez, Rodrigo	Development of NIR-I light-activatable nanoparticles with integrated NIR-II photoacoustic tracking for in vivo cargo delivery	0	3649473
7:00 PM	Acosta Santiago, Maxier	Developing mitochondria-targeting polymeric nanoparticles using peptides as non-covalent stabilizers	0	3652749
7:00 PM	Riley, McKenzie	Protein modification as a facile approach to retain activity upon conjugation to gold nanoparticles	0	3653820
7:00 PM	Chien, Yun Chen	Investigation of the self-assembly of double-hydrophilic polymer coated boron carbon oxy-nitride (BCNO) as a potent boron nanodrug	0	3653997
7:00 PM	Georgiou, Panagiotis	Plasmonic detection of glycosylated gold nanoparticles: influence of the polymeric glyco-linker on signal outputs due to protein-corona formation	0	3654982
7:00 PM	Rahmani, Paniz	One-step cap exchange method to produce quantum Dot-oligonucleotide conjugates	0	3657134

	7:00 PM	Petrek, Zachary	In-situ detection of SARS-CoV-2 pseudovirus via aptamer functionalized gold nanoparticles	0	3660647
	7:00 PM	Dragulska, Sylwia	Development of pH-responsive peptide-coated nanoparticles for targeting and drug delivery to ovarian cancer cells	0	3661355
Sunday 3/20/2022		Poster - In-person	Synthetic Amphiphiles and Formulations for the Delivery of Drugs, Nucleic Acids and Proteins	Exhibit Hall C (SDCC)	COLL031A
	7:00 PM	LEE, JEONGHUN	Reversible interlayer boronic acid/diol crosslinked bottlebrush nanoparticles for drug delivery	0	3642753
	7:00 PM	Cureno Hernandez, Karla Kim, Sung Hoon	Zwitterionic bottlebrush copolymers for effective mucosal transport	0	3642759
	7:00 PM	Compton, Avery	Synthesis and characterization of rhamnolipids and xylolipids using biosynthetic and synthetic b-hydroxy acids	0	3651589
	7:00 PM	Takano, Shin	Internalization into cancer cells of zwitterionic amino acid polymers via amino acid transporter recognition	0	3671531
Sunday 3/20/2022		Poster - In-person	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations	Exhibit Hall C (SDCC)	COLL033A
	7:00 PM	Joy, Karena	Plasmonic activation of molecular switches via laser irradiation	0	3657317
Sunday 3/20/2022		Poster - In-person	Controlled Assembly of Charged Soft Matter	Exhibit Hall C (SDCC)	COLL035A
	7:00 PM	Manzo, Elia	Development of binary protein arrays composed of oppositely charged cage-like proteins	0	3650605
Sunday 3/20/2022		Poster - In-person	Nanomaterials Using Colloidal Synthesis for Energy Applications and Catalysis	Exhibit Hall C (SDCC)	COLL039A
	7:00 PM	ROY, SOUMI	Ultrafast interfacial electron transfer dynamics between CsPbBr ₃ perovskite nanocrystals and small organic molecules	0	3650087
	7:00 PM	Sanchez Lievanos, Karla Rosalia	Nanostructured spinel metal ferrites for photocatalytic water remediation	0	3656707
	7:00 PM	Zhang, Xuhui	Correlation between nanorheological and nanotribological behavior of ionic liquids	0	3657047
	7:00 PM	Dummer, Nicholas	Surfactant control of copper molybdate nanoparticles for photocatalysis	0	3658149
	7:00 PM	Jensen, Mitchel	Famatinite nanomaterial synthesis and characterization for sustainable energy applications	0	3660960
	7:00 PM	Rodriguez Ortiz, Freddy	Dielectric effects dictate the emission anisotropy in colloidal CsPbBr ₃ nanorods	0	3661393
Sunday 3/20/2022		Poster - In-person	PUNC: Nanomaterials Research at Primarily Undergraduate Institutions	Exhibit Hall C (SDCC)	COLL041A
	7:00 PM	Lyon, Zoe	Facile strategy to fabricate WS ₂ based printable electrode for VOC sensor	0	3648228
	7:00 PM	Huynh, Chris Banta, Kelsey	Exploration and prevention of the surface barrier layer on HKUST-1 films	0	3652792
	7:00 PM	Ray, Brooklyn	Nonenzymatic, noninvasive colorimetric detection of glucose on wax-printed microwells via gold nanoparticles	0	3653747
	7:00 PM	Tabo, Ayana Hanson, Lindsey	Applying gold nanoparticles as force sensors in epoxy polymers: Synthesis and characterizations of epoxy nanocomposites	0	3655736
	7:00 PM	Kim, Dean	NMR studies on imine bond formation equilibria for the formation of colloidal covalent organic frameworks	0	3656818

		Comparative DNA adductomic analysis of trout gill cells and bacterium <i>B. subtilis</i> upon timed exposure to LiCoO ₂ nanoparticles	0	3657489
7:00 PM	Lu, Kelly			
7:00 PM	Tawakalna, Falak Hong, Brian Svendahl, Erica	Dynamic formation of H ₂ O ₂ from nanoscale transition metal oxides (TMOs) in aqueous suspensions	0	3657540
7:00 PM	Tran, Donna	Expanding the protein corona across organisms Colloidal covalent organic framework synthesis with carboxylic acid catalysts	0	3657741
7:00 PM	O'Connor, Walter	Regular dispersion of gold nanoparticles in a peptoid nanosheet	0	3660286
7:00 PM	Luo, Qi	Copper sulfide/copper selenide nanorhombuses through post-synthetic transformation	0	3660541
7:00 PM	Xie, Wanrui	Effect of Se and dodecanethiol on the shape and composition of copper sulfide nanorods	0	3660584
7:00 PM	Smith, Emily	Controlled zinc sulfide nanocrystal synthesis through studies of single-source precursors	0	3661528
Monday 3/21/2022	Oral - Hybrid	ACS Award in Colloid Chemistry 2020 - Symposium in honor of Molly Stevens	Room 22 (SDCC)	COLL007A
8:05 AM	Stoddart, James	Supramolecular metallurgical etchnology Encoding high bioactivity in supramolecular nanostructures	30	3654713
8:35 AM	Stupp, Samuel		30	3659190
9:05 AM	Stellacci, Francesco	Supramolecular antivirals Multi-functional nanocarrier platforms for anti-cancer immunity in heterogeneous tumor microenvironments	30	3651896
9:50 AM	Nel, Andre		30	3651066
10:20 AM	Gu, Zhen	Glucose-responsive smart insulin delivery	30	3655162
10:50 AM	Gormley, Adam	Machine-assisted design of biointerfacial nanomaterials	30	3638707
11:20 AM	Spicer, Christopher	Exploring strategies for colloid-biomolecule conjugation	30	3658120
Monday 3/21/2022	Oral - Hybrid	ACS Award in Colloid Chemistry 2020 - Symposium in honor of Molly Stevens	Room 22 (SDCC)	COLL007B
2:00 PM	Parak, Wolfgang Jimenez de Aberasturi, Dorleta	Assembly and degradation of inorganic nanoparticle in biological environment Inorganic nanoparticles/polymer hybrid materials for biomedicine	30	3655914
2:30 PM	Lahann, Joerg	Protein nanoparticles as multifunctional drug delivery carriers	30	3656208
3:00 PM	Liz Marzan, Luis	Biosensing through chemical reactions on plasmonic nanoparticles	30	3656209
3:30 PM	Chandrawati, Rona	Nanozymes for nitric oxide delivery from endogenous and exogenous prodrugs	30	3642834
4:15 PM	Kotov, Nicholas	Graph theoretical methods for design of nanomaterials	30	3653273
4:45 PM	Weiss, Paul		30	3648511
5:15 PM		Nanotechnology approaches to biology and medicine	30	3660789
Monday 3/21/2022	Oral - Hybrid	ACS Award in Surface Chemistry 2022: Symposium in honor of Miquel Salmeron	Room 23A (SDCC)	COLL009B
8:00 AM	Nilsson, Anders	Operando studies of CO ₂ , CO and N ₂ catalytic hydrogenation reactions with high pressure XPS	30	3650735
8:30 AM	Yang, Peidong	Nanowire photoelectrochemistry Aqueous solution-vapor interfaces investigated by photoelectron spectroscopy	30	3651335
9:00 AM	Bluhm, Hendrik	Toward understanding the role of the electrified interface structure and electrolyte effects on well-defined surfaces for electrocatalysis	30	3650735
9:30 AM	Escudero-Escribano, Maria		30	3656705
10:00 AM	Selloni, Annabella	First principles simulations of water: Titania interfaces	30	3655733

10:30 AM	Thornton, Geoffrey	Ordering at metal oxide-aqueous electrolyte light harvesting interfaces	30	3653827
11:00 AM	De Yoreo, James	Nucleation and self-assembly at solid-liquid interfaces	30	3656220
11:30 AM	Kimmel, Greg	Structure and dynamics of deeply supercooled water	30	3657518
Monday 3/21/2022	Oral - Hybrid	ACS Award in Surface Chemistry 2022: Symposium in honor of Miquel Salmeron	Room 23A (SDCC)	COLL009C
2:00 PM	Park, Jeong Young	Atomic-scale friction properties of two-dimensional intercalated water layers	30	3658364
2:30 PM	Spencer, Nicholas	Molecular design of polymer-brush-forming lubricant additives	30	3650780
3:00 PM	Carpick, Robert	Seeing the hidden interface: Revealing nanoscale mechanisms of contact, adhesion, and friction by in situ experiments	30	3661417
3:30 PM	Kim, Seong	Physical and chemical origins of friction on two-dimensionally flat surface with atomic steps	30	3661679
4:00 PM	Maier, Sabine	On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures	30	3658452
4:30 PM	Schnadt, Joachim	Ambient pressure XPS applied to the atomic layer deposition of HfO ₂ on InAs: Oxygen relocation during HfO ₂ ALD on native and thermal oxides of InAs	30	3656675
5:00 PM	Perez, Ruben	Atomic force microscopy images carry key chemical information: Halogen bonds, tautomerization, and molecular identification with deep learning	30	3654197
5:30 PM	Schwarz, Udo	Unraveling the atomic-scale properties of metallic glasses	30	3659770
Monday 3/21/2022	Oral - Hybrid	Colloid, Nanomaterial, and Interface Chemistry Research at Primarily Undergraduate Institutions	Room 23B (SDCC)	COLL010C
8:00 AM	Peters, Gretchen	Manipulating boric acid crosslinking in polyvinyl alcohol organogels	30	3652261
8:30 AM	Dash, Kareena	Fast-disintegrating oral drug delivery system based on naproxen/cyclodextrin inclusion complex nanofibers	20	3653170
8:50 AM	Hsiung, Emmy	Ondansetron/cyclodextrin inclusion complex electrospun nanofibers for fast-disintegrating drug delivery	20	3653161
9:10 AM	Rodriguez, Dinora	Study and synthesis of gold nanoparticles and nanorods for photothermal therapy	20	3661486
9:45 AM	Feng, Vivian	Developing a paradigm of surface interactions of nanomaterials with biosurfaces	30	3657466
10:15 AM	Omar, Haneen	α 1-Acid glycoprotein decorated hyaluronic acid nanoparticles for suppressing metastasis and overcoming drug resistance breast cancer	30	3656947
10:45 AM	Liu, Jingbo	Efficiency improvement of green catalytic synthesis of ammonia using solid oxide electrolysis cells	30	3647251
Monday 3/21/2022	Oral - Hybrid	Colloidal Nanoparticle Synthesis and Assembly	Room 23B (SDCC)	COLL021D
2:00 PM	Googasian, Jack	Design and synthesis of chiroptically active gold nanoparticles	20	3656447
2:20 PM	Park, Jungwon	Formation mechanism of nanoparticle by in situ/liquid TEM	20	3656197
2:40 PM	Zamkov, Mikhail	Shape control of colloidal semiconductor nanocrystals through thermodynamically: Driven aggregative growth	20	3654840
3:00 PM	Pan, Jia-Ahn	Stimuli-sensitive ligands for direct lithography of functional inorganic nanomaterials	20	3654821
3:30 PM	Medhi, Riddhiman	Enhancing the scope of metal oxide nanoparticles via doping and plasmonic coupling	20	3652184

	3:50 PM	Solti, David	Mechanisms for anisotropic growth of aluminum nanocrystals	20	3650515
	4:10 PM	Cai, Tong	Colloidal synthesis and charge carrier dynamics of Cs ₄ Cd _{1-x} Cu _x Sb ₂ Cl ₁₂ (0 ≤ x ≤ 1) layered double perovskite nanocrystals	20	3647260
	4:30 PM	Johnson, Hannah	Systematically mapping the morphology and nanoscale distributions of gold and silver in bimetallic alloy nanoparticles	20	3661892
Monday 3/21/2022		Oral - In-person	Nanomaterials	Room 20BCD Theater 4 (SDCC)	COLL012D
	2:00 PM	Lee, Margaret	Nanoparticle assembly in high polymer concentration solutions increases superlattice stability	20	3644257
	2:20 PM	Malhotra, Karan	Upconversion nanoparticles coated with phosphonate-based polymers have long-term colloidal stability in aqueous buffers	20	3649720
	2:40 PM	Theford, Randal	Pluronics-based nanomaterials for self-assembled mesoporous superconductors	20	3655465
	3:00 PM	Large, Matthew	Explosive percolation produces highly-conductive polymer nanocomposites	20	3656857
	3:20 PM	Sakurai, Kazuo	An alternating copolymer exhibiting the microphase-structure transition from ultrathin plate to unimeric sphere	20	3657883
	3:40 PM	Yee, Daryl	Reversible martensitic phase transitions in 3D nanoparticle superlattices	20	3651372
	4:20 PM	Tait, William	Tuning the structure direction of resols by ultra-large molar mass linear diblock copolymers with a binary solvent system: A pathway to carbons with ultra-large, co-continuous pore spaces	20	3660062
	4:40 PM	ZHOU, YIFAN	Geometry-directed self-recognition in giant amphiphiles	20	3662247
	5:00 PM	Pitcher, Mica	Colloidal engineering of cellulose nanocrystal redispersibility in aqueous media	20	3661335
	5:20 PM	Payne, Daniel	Photosensitizer encryption in macrocycles with aggregation enhanced singlet oxygen production	20	3662078
	5:40 PM	Pun, Andrew	Enhancing the optical properties of magic-sized nanocrystals	20	3660522
Monday 3/21/2022		Oral - In-person	Basic Research in Colloids, Surfactants and Interfaces	Room 20BCD Theater 5 (SDCC)	COLL018C
	8:00 AM	Alexandridis, Paschalis	Structural characterization of mixed micelles formed by ionic surfactants and nonionic polymers in aqueous solutions	20	3662253
	8:20 AM	Webley, Ann-Dorie	Local distribution of limonene in phospholipid vesicles	20	3660249
	8:40 AM	Lee, Jessica	Investigation of lipid self-assembly in the presence of liquid-liquid phase separation	20	3645397
	9:00 AM	Jones, Konnor	Synergistic adsorptive behavior of cationic surfactants at the oil-water interface	20	3649670
	9:20 AM	Ruths, Marina	Friction of fatty acid systems at different sliding speeds	20	3656604
	10:00 AM	Tran, Emma	Steric and molecular bonding effects at the surfaces of uncharged surfactant and polymer-coated emulsions	20	3652620
	10:20 AM	Amirfattahi, Saba	Phase study of bicontinuous interfacially jammed emulsion gels (bijel) via solvent transfer	20	3654774
	10:40 AM	Swope, William	Model for simulations of the CnEm nonionic surfactant family derived from recent experimental results	20	3662090

11:00 AM	Natarajan, Upendra	Molecular simulations of structure and dynamics of poly-(acrylic acid) and non-ionic surfactant in aqueous solutions: Pentaethylene glycol n-octyl ether (C8E5) and hexaethylene glycol n-dodecyl ether (C12E6)	20	3669350
11:40 AM	Lee, Yohan	Chiral selective transport of amino acids through protein nanopores	20	3639359
Monday 3/21/2022	Oral - In-person	Colloidal Nanoparticle Synthesis and Assembly	Room 23C (SDCC)	COLL021C
8:00 AM	Parobek, David	One pot solution phase synthesis of colloidal CrGeTe3 nanoplatelets	20	3660792
8:20 AM	Jones, Haley	Manipulating color characteristics via x-ray induced sequential Förster resonance energy transfer and a photonic bandgap in a radioluminescent crystalline colloidal array	20	3660510
8:40 AM	Watt, John	In-situ electron microscopy to inform superior magnetic nanomaterials	20	3659025
9:10 AM	Waters, Thomas	Nanomaterial enhanced photonic colloidal crystals as colorimetric time temperature indicators	20	3658646
9:30 AM	Zhou, Shan	Self-assemblies of gold tetrahedra with unconventional symmetry breaking	20	3657783
9:50 AM	Al-Husseini, Jacob	Directed covalent assembly of functionalized iron oxide nanoparticles into monolayer thin films	20	3656852
10:10 AM	Al Harraq, Ahmed	Synthesis and assembly of rod-shaped silica colloids into spherical shells	20	3656816
Monday 3/21/2022	Oral - In-person	Colloidal Hybrid Materials Intended for Biological Applications	Room 24A (SDCC)	COLL025E
8:00 AM	He, Qilin	Polymer-based photonic microparticles	20	3657434
8:20 AM	Mattoussi, Hedi	Evaluating the enzymatic activity of the breast cancer marker MMP-14 using AuNP-peptide-dye conjugates	20	3657704
9:00 AM	Perez Rafael, Silvia	Enzymatic surface functionalization of nanoparticles for building blocks in nanocomposite hydrogels	20	3658019
9:20 AM	Driskell, Jeremy	Adsorption behavior of chemically/charged modified antibody on gold nanoparticles	20	3658406
9:40 AM	Joo, Jinmyoung	Secondary packaging of nanoparticles for enhanced intracellular trafficking	20	3658500
10:00 AM	Mattoussi, Hedi	Multifunctional contrast agent for 19F-based magnetic resonance imaging	30	3657743
10:30 AM	Kros, Alexander	Peptide amphiphile coating of gold nanorods: Ordered, dense coatings promote stability and facilitate in vivo two-photon imaging	30	3658453
11:00 AM	Sharma, Shubham	Vortex assisted precipitation dynamics of acoustically levitated saline droplet	20	3658598
11:20 AM	Puertas, Antonio	Shaped nanoparticles with enhanced antimicrobial features.	20	3658912
11:40 AM	Jenkins, Samir	Morphological effects of gold nanoparticle cytotoxicity induced by ionizing and visible radiation	20	3659305
Monday 3/21/2022	Oral - In-person	Colloidal Hybrid Materials Intended for Biological Applications	Room 24A (SDCC)	COLL025G
2:00 PM	Kambar, Nurila	Self-assembled hybrid multilamellar vesicles of phospholipids and block copolymers for efficacious delivery of insoluble drugs to cells	20	3659319
2:20 PM	Wang, Congzhou	Reversing epithelial-mesenchymal transition in metastatic cancer cells using engineered black phosphorus nanosheets and a mild photothermal effect	20	3659874
2:40 PM	Mieszawska, Aneta	Engineering and validation of peptide-stabilized nanomaterials for drug delivery and cancer therapy	20	3660409

	3:00 PM	Kawelah, Mohammed	Antibody coated polymersomes with encapsulated indocyanine green J-aggregates for photoacoustic cancer imaging	20	3661518
	3:20 PM	Dennis, Allison	Designing biodegradable inorganic nanoparticles for optical applications in biomedicine	20	3662539
	3:40 PM	Snee, Preston	Lifetime tunable type II "giant" quantum dot imaging agents	30	3660635
	4:10 PM	Hubbard, Mische	Antibiofilm activity of chiral graphene nanoparticles	30	3661697
	4:40 PM	he, tengyu	Biomimetic synthesis of versatile biodegradable polyethylenimine/calcium phosphate micro-/nanostructures for transient ultrasound imaging	20	3661982
	5:00 PM	Sengupta, Shreyasi	Synthesis, surface modification and environmental impact of InSe 2D nanomaterials	20	3662515
Monday 3/21/2022		Oral - In-person	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations	Room 20BCD Theater 5 (SDCC)	COLL032A
	2:00 PM	Li, Gonghu	Activation of supported cobalt oxide nanoparticles for solar CO2 reduction	30	3656110
	2:30 PM	Qin, Dong	Unraveling the mystery of poly(vinylpyrrolidone) in stabilizing and capping colloidal silver nanocrystals by spectroscopy fingerprinting	30	3641091
	3:00 PM	Spanedda, Nicole	Impact of surface ligand coverage on ionization potential of semiconductor nanoparticles	20	3655718
	3:20 PM	Murphy, Catherine	Mixing it up in colloidal gold nanocrystals: Some minor catalytic insights	30	3650574
	4:10 PM	Poteau, Romuald	Joint experimental and DFT-based studies of the surface properties of colloidal ultra-small Ruthenium nanoparticles	20	3660453
	4:30 PM	Jawaid, Ali	Basal surface functionalization of redox exfoliated group V LTMDs	30	3658502
	5:00 PM	Sautet, Philippe	Size of Pd ensemble and entropic effects govern HD exchange kinetics over dilute Pd-in-Au alloy nanoparticle catalysts	30	3659771
Monday 3/21/2022		Oral - In-person	PUNC: Nanomaterials Research at Primarily Undergraduate Institutions	Room 23C (SDCC)	COLL040A
	2:00 PM	Hughes, Steven	Introducing PUNC: The primarily undergraduate nanomaterials cooperative	20	3657200
	2:20 PM	St Angelo, Sarah	Zinc oxide: A catalyst for photo-oxidation reactions and undergraduate research	20	3661128
	2:40 PM	Njoki, Peter	Microwave-assisted synthesis of non-precious bimetallic nanoparticles	20	3656460
	3:00 PM	Munro, Andrea	Identifying intermediates formed during a ZnSe nanorod heat-up synthesis	20	3659300
	3:35 PM	Plass, Katherine	Defect-facilitated anion exchange of copper chalcogenide nanorods	20	3661349
	3:55 PM	Hendricks, Mark	Synthesis of single-source precursors and their conversion to zinc sulfide nanocrystals	20	3661510
	4:15 PM	Anderson, Mary	Tetrahedrite nanomaterials for thermoelectrics: Synthetic versatility, reaction pathway, and thermal stability	20	3660738
	4:35 PM	Simpson, Scott	Search for molecular corks beyond carbon monoxide: A quantum mechanical study of N-Heterocyclic carbene adsorption on single atom alloys (SAAs)	20	3650141
	4:55 PM	Wheeler, Korin	Role of human serum and solution chemistry in fibrinogen peptide–nanoparticle interactions	20	3657109

Monday 3/21/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 7 (Virtual Room)	COLL004C
10:00 AM	Santore, Maria	Dramatic influence of vesicle size on shape and morphology of compact solid domains	25	3659652
10:25 AM	Kumarage, Teshani	Sterol conjugated lipids results in improved liposomal stability	25	3657438
10:50 AM	Trache, Andreea	Dysregulation of integrin function and actin cytoskeleton in aged vascular smooth muscle cells	25	3656931
11:15 AM	Shih, Kuo-Chih	Effect of cholesterol on the elastic and viscous properties of saturated lipid bilayers: A neutron spin Echo study	25	3647121
11:40 AM	Gawrisch, Klaus	Kinetics of rhodopsin-transducin interaction: Functional characterization and SANS	25	3660729
12:05 PM	Naumann, Christoph	Polymer gel-tethered lipid bilayer (PGTB): A cell surface mimetic of adjustable viscoelasticity	25	3652525
12:30 PM	Chuduang, Kridnut	Assembly and characterization of polymer gel-tethered lipid bilayer (PGTB)	25	3652495
Monday 3/21/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 7 (Virtual Room)	COLL004D
3:00 PM	Gil, Daniel	Lipid droplets as flexible biological substrates for disordered protein condensation and assembly	25	3649673
3:25 PM	Houser, Justin	Intrinsically disordered proteins generate steric pressure through polymer-like crowding	25	3649155
3:50 PM	Yuan, Feng	Balance of attractive and repulsive forces controls the direction of membrane bending by intrinsically disordered proteins	25	3656955
4:15 PM	Gollapudi, Sadhana	Impact of glycosylation on uptake of receptors by endocytosis	25	3649703
4:40 PM	Schneider, Gerald	Dynamics of membrane model systems	25	3658657
5:05 PM	Wimley, William	Selective nanoscale pores in liposomes by a synthetically evolved peptide: Implications for triggered release	25	3657629
5:30 PM	Lochbaum, Christian	Influence of substrate composition on nanoparticle and protein interaction with supported lipid bilayers	25	3637597
Monday 3/21/2022	Oral - Virtual	Nanomaterials	Zoom Room 19 (Virtual Room)	COLL012C
10:00 AM	Villanova, Jake	Optimizing the T2 relaxation dynamics of iron oxide nanocrystals for the rational design of advanced MRI contrast agents: size and surface engineering	20	3650208
10:20 AM	Ryu, Han Jung	Tetraalkylammonium halide-functionalized perovskite nanocrystals for highly enhanced long-term stability and controlled photoluminescence	20	3647446
11:20 AM	Canga, Emine Merve Dudak, Fahriye Ceyda	Fabrication of novel cellulose acetate hybrid nanofibers to enhance the viability of probiotics in the gastrointestinal tract	20	3650101
12:00 PM	Bahamonde, Janire	Role of functional groups in drug loading capacity of Zein nano-drug delivery systems	20	3651542
Monday 3/21/2022	Poster - Virtual	Colloid, Nanomaterial, and Interface Chemistry Research at Primarily Undergraduate Institutions	Virtual Room (Zoom)	COLL011A
12:00 PM	Kazakov, Sergey	Lipobeads in the presence of reducing agents: Kinetics of degradation	0	3655669

	12:00 PM	Zhang, Fengfan	Study on the preparation of two-dimensional magnetic response nanoparticles	0	3657636
	12:00 PM	Halder, Krishna	Effect of variation of nanoparticle concentration on protein corona formation	0	3658213
Monday 3/21/2022		Poster - Virtual	Nanomaterials Nano-emulsion/Nano-suspension as precursors for oral dissolvable films to enhance bioavailability for poorly water-soluble drugs	Virtual Room (Zoom)	COLL013A
	12:00 PM	Yang, Yuan	Surface passivation of Ge _{1-x} Sn _x nanocrystals by silica coating	0	3650412
	12:00 PM	Spera, Drew	One-pot large-scale synthesis of polymer-capped plasmonic nanoparticles in a deep eutectic solvent	0	3651389
	12:00 PM	Kim, Yoon Hyuck	Expanding chemical versatility of Ge _{1-x} Sn _x nanocrystals for the fabrication of thin films with high electrical conductivity and tunable energy gaps	0	3651713
	12:00 PM	Barbieri, Rachel	Facile synthesis of ferromagnetic single crystal VS ₂ by chemical vapor deposition	0	3654811
	12:00 PM	Chiu, Sheng-Kuei	Solid-phase copper-curcumin nanocomposites: Novel synthetic method and antibacterial activity	0	3656610
Monday 3/21/2022		Poster - Virtual	Surface Chemistry AFM-IR spectroscopy as a tool to probe micro and nanoscale heterogeneities within environmental films containing organic matter, biological components, oxyanions, and minerals	Virtual Room (Zoom)	COLL015A
	12:00 PM	Kim, Deborah	Structure and reactivity of metal-supported ultrathin iron oxides	0	3649742
	12:00 PM	LI, LINFEI	Self-assembled metal ion incorporated poly vinyl alcohol hydrogel beads for fluoride removal from groundwater	0	3656599
	12:00 PM	M, Sai Kiran	Investigating the effects of force and speed on reactions	0	3658384
Monday 3/21/2022		Poster - Virtual	Biomaterials and Biointerfaces Probing morphology and orientation of VOC binding peptides at biotic/abiotic surfaces using near-edge X-ray absorption fine-structure spectroscopy	Virtual Room (Zoom)	COLL017A
	12:00 PM	sant'anna, gustavo	In silico studies of novel peptide-based bolaamphiphiles for potential applications engineering of cartilage	0	3646197
	12:00 PM	Hart, Lucy Banerjee, Ipsita	Cyanuric chloride-based reactive dyeing treatment of cellulosic fibers with antimicrobial functions	0	3650716
Monday 3/21/2022		Poster - Virtual	Basic Research in Colloids, Surfactants and Interfaces Preparation of silanized cardboard samples and characterization of their surface properties and hydrocarbon adsorption isotherms	Virtual Room (Zoom)	COLL019A
	12:00 PM	Kim, Joonyeong	Synergistic effects of silica nanoparticles and nanosurfactant in high salinity water	0	3641424
	12:00 PM	Al-Sadeg, Hala	Extended hydrogen bonding through protic ionic liquids facilitates the growth and stability of water domains in hydrophobic environment	0	3644314
	12:00 PM	BANERJEE, SHANKHA Arora, Jayati Ranjan, Anuj Chauhan, Abhishek	Environmental implications of surfactant pollution and its microbial degradation	0	3650826
	12:00 PM			0	3659263

Monday 3/21/2022	Poster - Virtual	Fundamental Research in Colloids, Surfaces and Nanomaterials	Virtual Room (Zoom)	COLL020A
12:00 PM	Feng, Liang xiong, yilin Shen, Hao Dong, Zhaoxia Yang, Zihao	Mechanisorption Novel amphiphilic Janus nanosheets for good stability in formation brine	0	3642935
12:00 PM	Honciuc, Andrei	Introducing a new method for measuring the polar and dispersive components of the surface energy of nanoparticles	0	3646239
12:00 PM	Sifuentes, Jorge	Modelling optical properties of anisotropic gold nanoparticles	0	3650828
12:00 PM	Hui, Carly	Improved scalability of palladium nanocrystal synthesis	0	3651312
12:00 PM	Farkas, Natalia	Characterization of colloidal nanoparticles by DLS—a word of caution	0	3652537
12:00 PM	Patel, Unnatiben	Host targeted multifunctional nano-therapy for eradication of intracellular bacterial infection	0	3652724
12:00 PM	Vagias, Apostolos	Effects of polymer block length asymmetry and temperature on the nanoscale morphology of thermoresponsive double hydrophilic block copolymers in aqueous solutions	0	3653106
12:00 PM	Diroll, Benjamin Flanagan, John Banerjee, Ipsita	Intraband optical gain in colloidal nanoplates Interactions of neuronal proteins with sesquiterpenoids and polyphenols	0	3653569
12:00 PM	kocaman, Ceren	Controlling deposit structures via tuned nanorod interactions for enhanced ultrafiltration properties of anisotropic membranes	0	3654360
12:00 PM	Watanabe, Takumi	Synthesis of deformable hydrophobized microgels with solid nanoparticles	0	3655748
12:00 PM	Datt, Neelam	Development and pharmacological characterization of microwave-assisted solid dispersion of General Chemistry I loaded micro-gel for superficial infections	0	3656185
12:00 PM	Cherukupally, Pavani	Unraveling structure-property relationship of oil/water/surfactant system with temperature	0	3657206
12:00 PM	Kamkar, Milad	From sculpted emulsions to structured aerogels	0	3659932
12:00 PM	Rathnayake, Kavini	Alginate lyase guided rhamnolipid coated mesoporous nanoassembly for synergistic delivery of an antibiotic and a quorum sensing inhibitor for the eradication of Pseudomonas aeruginosa biofilms	0	3661210
12:00 PM	Shao, Yanlong	NIR triggered reprogrammable shape memory micropillars with accurately controllable friction and adhesion	0	3661409
Monday 3/21/2022	Poster - Virtual	Colloidal Nanoparticle Synthesis and Assembly	Virtual Room (Zoom)	COLL022A
12:00 PM	Xiao, Zhen	Highly responsive manganese ferrite clusters toward efficient magnetic heating using battery-operated inductive heaters	0	3661613
12:00 PM	Wang, Joanna	Fe ²⁺ doped ZnSe nanocrystals: Synthesis and size control via variation of temperature in a microemulsion assisted hydrothermal system	0	3662118
Monday 3/21/2022	Poster - Virtual	Synthetic Amphiphiles and Formulations for the Delivery of Drugs, Nucleic Acids and Proteins	Virtual Room (Zoom)	COLL031A
12:00 PM	Heise, Ryan Banerjee, Ipsita	Assessment of self-assembling ability and stability of newly designed collagen-mimetic peptides and their	0	367422

		interactions with extracellular matrix proteins computationally		
Monday 3/21/2022	Poster - Virtual	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations Photo-induced methane nonoxidative conversion on Ti-containing layered double hydroxide nanocomposite	Virtual Room (Zoom)	COLL033A
12:00 PM	Yang, Cao		0	3638170
Monday 3/21/2022	Poster - Virtual	Perspective of Soft Matter Research in Space: Present & Future	Virtual Room (Zoom)	COLL037A
Monday 3/21/2022	Poster - Virtual	PUNC: Nanomaterials Research at Primarily Undergraduate Institutions Mapping spectral-structure relationships of crystal packing in PDI thin films using infrared reflectance absorbance spectroscopy	Virtual Room (Zoom)	COLL041A
12:00 PM	Smirnov, Aleksandr		0	3659825
Monday 3/21/2022	Sci-mix - In-person	Sci-Mix Probing interfacial structural dynamics of charged glassy gels	Exhibit Hall C (SDCC)	COLL044A
8:00 PM	Deptula, Alexander	Encapsulation of perovskite nanocrystal solids using metal oxides: A closer look into optical properties	0	3638721
8:00 PM	Bose, Riya	Au@Ag nanobipyramids based nanoplasmonic sandwich immunoassay for tumor-derived exosome detection and exosomal PD-L1 profiling	0	3640428
8:00 PM	Wang, Chuanyu	Understanding metal oxide nanocrystal growth using a continuous addition synthesis	0	3641542
8:00 PM	Knecht, Tawney	Ultrathin hard magnetic coatings with perpendicular strong anisotropy by a spray deposition technique	0	3642449
8:00 PM	Chumakov, Andrei	Cleavable polymer amphiphiles for enhanced photodynamic therapy	0	3642812
8:00 PM	Brega, Valentina	Complex lipid-coated gold nanoparticles for the study of alpha-synuclein/membrane interactions	0	3642954
8:00 PM	McClain, Sophia	Gold nanostars: Synthesis, functionalization, and application	0	3645736
8:00 PM	Le, Natasha	Applying coarse-grained models to obtain Janus nanoparticle distributions	0	3646741
8:00 PM	Su´rez, Rosa	Engineering amyloid stabilized air-water interfaces for functional coatings	0	3648443
8:00 PM	Kummer, Nico	Development of NIR-I light-activatable nanoparticles with integrated NIR-II photoacoustic tracking for in vivo cargo delivery	0	3649224
8:00 PM	Tapia Hernandez, Rodrigo	Patterned chemical surface functionalization for self-propelled micromotors	0	3649473
8:00 PM	Haris, Uroob	ZIF-8 coated stainless steel meshes with colloiddally capped silver nanoparticles (CC Ag NPs) for removal of organic dyes and bacterial species	0	3649595
8:00 PM	Rodriguez, Ricky	“Off-surface” cross-linking of self-assembled monolayers: Reaction without morphology perturbation	0	3649775
8:00 PM	Wilczek, Luke	Ultrafast interfacial electron transfer dynamics between CsPbBr3 perovskite nanocrystals and small organic molecules	0	3650054
8:00 PM	ROY, SOUMI	Comparative study of mechanical, self-adhesive, self-healable properties of a hybrid hydrogel based on chitosan, tetraethylene glycol and polyacrylic acid	0	3650087
8:00 PM	Sahoo, Subhangi	Au-coated iron oxide nanoparticles for proteomic analysis	0	3650111
8:00 PM	Hoang, Khoi Nguyen		0	3650390

8:00 PM	Compton, Avery	Synthesis and characterization of rhamnolipids and xylolipids using biosynthetic and synthetic b-hydroxy acids	0	3651589
8:00 PM	Singh, Pradeep Kumar	Decoding the EphA2 active states by negatively charged membrane lipid regulation through FCCS	0	3652527
8:00 PM	Zheng, Qianlu	Electrical double layer of ionic liquids on graphene electrode	0	3652876
8:00 PM	Fan, Hanyu	Surface chemistry of indoor relevant organic compounds limonene and carvone on SiO ₂	0	3652975
8:00 PM	Riley, McKenzie	Protein modification as a facile approach to retain activity upon conjugation to gold nanoparticles	0	3653820
8:00 PM	Lin, Emily	Effects of ligand coverage and linker concentration on the structure of linker-mediated nanocrystal gels	0	3653952
8:00 PM	Baradaran Kayyal, Tohid	Dendronized gold nanorattles as multifunctional hybrid nanoparticles	0	3654033
8:00 PM	Georgiou, Panagiotis	Plasmonic detection of glycosylated gold nanoparticles: influence of the polymeric glyco-linker on signal outputs due to protein-corona formation	0	3654982
8:00 PM	Greenwood, Gus	Tuning nanoscale friction at the graphene interface using an FET-like device	0	3656661
8:00 PM	Parajuli, Sanjiv	Characterization of liquid-liquid interfaces stabilized by chitin and cellulose nanocrystals	0	3656843
8:00 PM	Zhang, Xuhui	Correlation between nanorheological and nanotribological behavior of ionic liquids	0	3657047
8:00 PM	Kwon, Jiheon	Enhancing mechanical properties of agarose hydrogels via mineralization	0	3657083
8:00 PM	Fernandes, Natalia	Antibacterial activity of an eco-friendly biosurfactant produced by yeast	0	3657125
8:00 PM	Rahmani, Paniz	One-step cap exchange method to produce quantum Dot-oligonucleotide conjugates	0	3657134
8:00 PM	Joy, Karena	Plasmonic activation of molecular switches via laser irradiation	0	3657317
8:00 PM	Lowrance, Chanda	Controlled assembly of gold nanobipyramids and CdSe/CdS quantum Dot	0	3657437
8:00 PM	Ofosu, Charles	Effective hard-sphere interactions between colloidal metal oxide nanocrystals by virial coefficient measurements	0	3657657
8:00 PM	Wu, Zishan	Orientation analysis of hierarchically oriented molecular self-assembled systems with line scanning vibrational sum frequency generation hyperspectral microscopy and machine learning	0	3657804
8:00 PM	Wasim, Eman	Reactivity and selectivity of single atom catalysts on metal oxide surfaces for the selective hydrogenation of acetylene	0	3658409
8:00 PM	Roman, Benjamin	Fluorine and tin co-doped indium oxide nanocubes for tunable IR plasmonics	0	3658631
8:00 PM	Waters, Thomas	Nanomaterial enhanced photonic colloidal crystals as colorimetric time temperature indicators	0	3658646
8:00 PM	Sherman, Zachary	Mutual polarization method for simulating the plasmonic response of self-assembled nanoparticle gels	0	3658700
8:00 PM	HOSSAIN, Kazi Zihan	Facile fabrication of extremely wet surface harnessing 5nm-thick gallium oxide on liquid metal	0	3659540
8:00 PM	Ostadossein, Fatemeh	Function-adaptive clustered nanoparticles reverse Streptococcus mutans dental biofilm and maintain microbiota balance	0	3659815

8:00 PM	Stegmann, Amy	De novo designed protein templates for directing mineralization of titanium oxides nanoparticles	0	3660225
8:00 PM	Carvalho Rocha, Brunno	Evaluation of the self-assembly behavior of colloidal particles with charged lobes via molecular dynamics simulations	0	3660375
8:00 PM	Spanedda, Nicole	Calculation of ionization energies and electron affinities of quantum dots and nanowires	0	3660748
8:00 PM	Hanigan-Diebel, Jennifer	Mixed-monolayer gold nanoparticle interactions with bovine serum albumin	0	3660850
8:00 PM	Jensen, Mitchel	Famatinite nanomaterial synthesis and characterization for sustainable energy applications	0	3660960
8:00 PM	Carroll, Matthias	Mixed-monolayer gold nanoparticles: Compositional analysis with an internal standard ¹ H-NMR experiment	0	3661184
8:00 PM	Dragulska, Sylwia	Development of pH-responsive peptide-coated nanoparticles for targeting and drug delivery to ovarian cancer cells	0	3661355
8:00 PM	Rodriguez Ortiz, Freddy	Dielectric effects dictate the emission anisotropy in colloidal CsPbBr ₃ nanorods	0	3661393
8:00 PM	Hrovat, David	Rational design of phosphonate ligands for upconverting nanoparticles in biological applications	0	3662053
8:00 PM	Hong, Celestine	Two-component, click-functionalized hemostat for the treatment of internal hemorrhage	0	3662149
8:00 PM	Hettiarachchi, Eshani	Reactions of alpha-pinene with SO ₂ and NO ₂ on hematite surface	0	3662177
8:00 PM	Pho, Thomas	Engineering coatings for protein nanoclusters to understand intranasal biological barriers	0	3662300
8:00 PM	Wimalasiri, Pubudu	Probing anion adsorption at a charged surfactant monolayer interface with sum frequency generation spectroscopy and molecular dynamics simulations	0	3662404
8:00 PM	Takano, Shin	Internalization into cancer cells of zwitterionic amino acid polymers via amino acid transporter recognition	0	3671531
8:00 PM	Shen, Xinhang	Synthesis inverse diamond lattice by sol-gel method	0	3677702
Monday 3/21/2022	Sci-Mix - Virtual	Sci-Mix	Virtual Room (Zoom)	COLL044B
8:00 PM	Yang, Cao	Photo-induced methane nonoxidative conversion on Ti-containing layered double hydroxide nanocomposite	0	3638170
8:00 PM	xiong, yilin Shen, Hao Dong, Zhaoxia Yang, Zihao	Novel amphiphilic Janus nanosheets for good stability in formation brine	0	3646239
8:00 PM	BANERJEE, SHANKHA	Extended hydrogen bonding through protic ionic liquids facilitates the growth and stability of water domains in hydrophobic environment	0	3650826
8:00 PM	Sifuentes, Jorge	Modelling optical properties of anisotropic gold nanoparticles	0	3651312
8:00 PM	Tang, Ruogu	Cyanuric chloride-based reactive dyeing treatment of cellulosic fibers with antimicrobial functions	0	3651751
8:00 PM	Carr, Amanda	Ion adsorption on graphene oxide monolayers at the air/water interface	0	3652838
8:00 PM	Patel, Unnatiben	Host targeted multifunctional nano-therapy for eradication of intracellular bacterial infection	0	3653106
8:00 PM	Vagias, Apostolos	Effects of polymer block length asymmetry and temperature on the nanoscale morphology of thermoresponsive double hydrophilic block copolymers in aqueous solutions	0	3653569

8:00 PM	Barbieri, Rachel	Expanding chemical versatility of Ge _{1-x} Sn _x nanocrystals for the fabrication of thin films with high electrical conductivity and tunable energy gaps	0	3654811
8:00 PM	GOGOI, MADHULEKHA	Quantum dot complex of ZnS and Pd(II) complex for selective detection of pyrophosphate anion with fluorescence quenching	0	3655173
8:00 PM	Xiao, Zhen	Highly responsive manganese ferrite clusters toward efficient magnetic heating using battery-operated inductive heaters	0	3655652
8:00 PM	Jimenez de Aberasturi, Dorleta	Inorganic nanoparticles/polymer hybrid materials for biomedicine	0	3656208
8:00 PM	Kumari, Sushma	Development of photocrosslinkable Kappa-carrageenan bioink to fabricate cell-laden scaffolds with high cytocompatibility	0	3656587
8:00 PM	M, Sai Kiran	Self-assembled metal ion incorporated poly vinyl alcohol hydrogel beads for fluoride removal from groundwater	0	3658384
8:00 PM	Cherukupally, Pavani	Unraveling structure-property relationship of oil/water/surfactant system with temperature	0	3661210
8:00 PM	Rathnayake, Kavini	Alginate lyase guided rhamnolipid coated mesoporous nanoassembly for synergistic delivery of an antibiotic and a quorum sensing inhibitor for the eradication of Pseudomonas aeruginosa biofilms	0	3661613
8:00 PM	Shao, Yanlong	NIR triggered reprogrammable shape memory micropillars with accurately controllable friction and adhesion	0	3662118
Tuesday 3/22/2022	Oral - Hybrid	ACS Award Lectures 2022	Room 22 (SDCC)	COLL001A
2:10 PM	Stevens, Molly	Engineering the bio-material interface for biosensing applications	50	3677713
3:15 PM	Salmeron, Miquel	Spectroscopic studies of solid-liquid interfaces using nanometer thin materials	50	3671773
Tuesday 3/22/2022	Oral - Hybrid	Colloidal Gels	Room 22 (SDCC)	COLL002A
8:05 AM	McGorty, Ryan	Shear-induced anisotropy at the meso- and macro-scales in colloidal gels	20	3659269
8:25 AM	Sudreau, Iana	Shear-induced memory effect in boehmite gels	20	3650754
8:45 AM	Mao, Xiaoming	How does rigidity emerge and disappear in low density soft matter?	30	3658795
9:15 AM	Schweizer, Kenneth	Theory of scale-dependent activated dynamics in dense suspensions of attractive colloids	30	3654003
10:00 AM	Song, Jake	Non-exponential stress relaxations in arrested soft materials	20	3651225
10:20 AM	sciortino, francesco	Playing with DNA hydrogels	30	3647076
10:50 AM	Howard, Michael	Modeling linker-mediated assembly of nanocrystal gels	30	3650957
11:20 AM	Singh, Murari	Linker based strategies for tuning optical and mechanical properties of nanocrystal gels	20	3663846
Tuesday 3/22/2022	Oral - Hybrid	Colloidal Gels	Room 23A (SDCC)	COLL002B
2:00 PM	Zia, Roseanna	"Phase mechanics" of arrested colloidal gels: A new paradigm for non-equilibrium phase transitions in soft matter	30	3657376
2:30 PM	Helgeson, Matthew	Fantastic gels and where to find them: Toward thermomechanical processing of colloidal gels	20	3661159

2:50 PM	Williams, Ian	Does diffusiophoresis play a role in coagulant dipping gelation?	20	3649947
3:10 PM	Del Gado, Emanuela	Elasticity, rigidity and rheology in soft particulate gels	30	3660668
3:55 PM	Bischofberger, Irmgard	Yield precursor in primary creep of colloidal gels	30	3650529
4:25 PM	Lehéricey, Pierre	Probing plastic rearrangements in colloidal gels	20	3650790
4:45 PM	Muller, Florence	Influence of surface roughness on the yielding of thermo-reversible colloidal gels	20	3650109
5:05 PM	Martínez, Jaime	Effect of the gravitational field on the gelation in sticky colloidal dispersions	20	3654182
Tuesday 3/22/2022	Oral - Hybrid	Surface Chemistry Electronic and optical property control of polycation/MXene layer-by-layer assemblies with chemically diverse MXenes	Room 23A (SDCC)	COLL014E
8:20 AM	Echols, Ian	Surface chemistry of indoor relevant organic compounds limonene and carvone on SiO ₂	20	3659799
9:00 AM	Fan, Hanyu	Investigation of nonadiabatic effects for H ₂ at Cu surfaces: A unified machine-learned electronic friction model for multiple facets	20	3652975
9:20 AM	Stark, Wojciech	Metal-ligand complexation on model surfaces and on oxide powder supports for single-site heterogeneous catalysis	20	3653100
10:00 AM	Tait, Steven	Silicene's pervasive surface alloy on Ag(111)	20	3647866
10:20 AM	Duncan, David	Oxidation of Ni-Cr alloys: Heterogeneity imparted by alloy microstructure and surface orientation	20	3657100
10:40 AM	Reinke, Petra	Effects of stoichiometry on the morphology and thermal stability of metal oxide clusters on metal surfaces	20	3660297
11:00 AM	Wang, Jason	Surface-dependent selective oxidation of ethanol to acetaldehyde over TiO ₂ /Au(111)	20	3660476
11:20 AM	Baber, Ashleigh	New oxidants and etch ligands for ALE of copper	20	3660741
11:40 AM	Panariti, Persi	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations Search for active site ensembles in dilute nanoparticle catalysts	Room 23B (SDCC)	COLL032B
Tuesday 3/22/2022	Oral - Hybrid	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations Routes to markedly enhanced electrocatalysis via photothermal-promoted dynamic active sites generation and interfaced with single atoms	Room 23B (SDCC)	COLL032B
8:00 AM	Frenkel, Anatoly	Ultrafast reducing power of a plasmonic photocatalyst	30	3648615
8:30 AM	Lin, Zhiqun	Dynamic control of elementary step energetics via pulsed illumination enhances photocatalysis on metal nanoparticles	20	3659350
9:00 AM	Warkentin, Christopher L.	Quantifying oxygen induced surface enrichment of a dilute PdAu alloy catalyst	30	3659691
9:20 AM	Christopher, Phillip	Colloidal synthesis of metal nanocrystals in metastable crystal structures	30	3637432
10:00 AM	Reece, Christian	Controlling electrocatalytic oxygen-atom transfer reactions	30	3640935
10:30 AM	Xia, Younan	Nanostructure array integration for energy-efficient and sustainable CO ₂ conversion and H ₂ production	30	3662324
11:00 AM	Manthiram, Karthish	Exploiting colloidal nanocrystal precursors for the preparation of uniform heterogeneous catalysts	30	3651248
11:30 AM	Gao, Pu-Xian	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations	Room 23B (SDCC)	COLL032C
Tuesday 3/22/2022	Oral - Hybrid	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations Exploiting colloidal nanocrystal precursors for the preparation of uniform heterogeneous catalysts	Room 23B (SDCC)	COLL032C
2:00 PM	Cargnello, Matteo		30	3651590

	2:30 PM	Sykes, E Charles	Single-atom alloy catalysts for non-oxidative propane dehydrogenation	30	3641100
	3:00 PM	Dummer, Nicholas	Supporting colloidal nanoparticles for catalysts for CO ₂ hydrogenation.	30	3658125
	3:30 PM	Skrabalak, Sara	Nanoscale processes associated with the disorder-to-order transformation of carbon-supported alloy nanoparticle atalysts	30	3658283
	4:10 PM	Montemore, Matthew	Computational screening of dilute alloy catalysts	30	3655934
	4:40 PM	Yang, Hong	Complex oxide electrocatalysts for the oxygen evolution reaction	30	3662631
	5:10 PM	Huang, Wenyu	Controlled synthesis of intermetallic nanoparticles for selective catalytic transformations	30	3656066
	5:40 PM	Inui, Kohei	Motion control of the hydrogel microspheres driven by chemical oscillation reaction	20	3646820
Tuesday 3/22/2022		Oral - In-person	Nanomaterials	Room 20BCD Theater 4 (SDCC)	COLL012E
	8:00 AM	chaudhary, vivek	Photodynamics of Mn ²⁺ doped coupled quantum Dot ZnS-CdSe	20	3653341
	8:20 AM	Jayaweera, Nuwanthaka	Understanding the surface passivation of quantum dots by small-molecule imidazole ligands: Exchange on oleate-capped cdse/zns core/shell quantum dots	20	3659106
	8:40 AM	Klein, Megan	Resolving triexciton recombination pathways in CdSe/CdS core-shell nanocrystal heterostructures	20	3659574
	9:00 AM	Fedin, Igor	Enhanced emission from the bright exciton in asymmetrically strained colloidal CdSe/CdxZn _{1-x} Se quantum dots	20	3660483
	9:20 AM	Marder, Andrew	Enhanced biexciton emission yield in individual CdS/CdSe/CdS nanoshells	20	3654636
	10:00 AM	Snee, Preston	Tuning semiconductor dopant energy levels with double doping via the cluster seed method	20	3661797
	10:20 AM	Amorim Graf, Aline	Modifying chemical interactions with MoS ₂ by controlled thermal oxidation	20	3655594
	10:40 AM	Mclsaac, Alexandra	Effect of ligands and self-healing on the CdSe nanocrystals' absorption spectrum using TDDFT	20	3646641
	11:00 AM	Gro��, Elisabeth	Colloidal silicon nanocrystals as luminescent layer in quantum Dot LEDs: Impact of surface group and chain length on LED performance	20	3646942
	11:20 AM	Chen, Ou	Synthesis and application of lead-free metal halide perovskite nanocrystals	20	3647178
	11:40 AM	Gomez, Hector	DFT investigation of hydrogenated and oxidized group-IV terminated (111) diamond surfaces	20	3659451
Tuesday 3/22/2022		Oral - In-person	Surface Chemistry	Room 20BCD Theater 5 (SDCC)	COLL014B
	2:00 PM	Chaudhuri, Shayantan	Combined computational and spectroscopic structural characterization of oxygen-terminated diamond (110) surfaces	20	3641683
	2:20 PM	Stoodley, Matthew	Growing graphene with polycyclic hydrocarbon precursors	20	3650131
	2:40 PM	Rumptz, John	Energetics and morphology of Ag and Ni on graphene / Ni(111) by adsorption calorimetry and ion scattering spectroscopy	20	3652874
	3:00 PM	Stokes, Camron Wolcott, Abraham	Brominated nanodiamond allows for C-C bond formation without a catalyst at room temperature	20	3661044

	3:20 PM	Sohail, Billal	Effects of alkali atom doping on metal-organic frameworks: A joint experimental and computational study	20	3646324
	4:00 PM	Zhang, Dong	On-demand design of antimicrobial and antifouling surfaces and hydrogels	20	3655128
	4:20 PM	Kesner, Laura	Measuring nanoparticle-induced lipid phase change of varying membrane compositions using a new analysis of laurdan fluorescence spectroscopy	20	3655741
	4:40 PM	Anderson, Mary	Tuning interfacial interactions for directed assembly of surface-anchored MOF-14 to tailor film morphology and pattern surface features	20	3660885
	5:00 PM	Jiao, Sally	Overcoming the permeability-selectivity tradeoff via the design of heterogeneous pore wall chemistries	20	3660797
	5:20 PM	Bononi, Fernanda	High-throughput multiscale approach towards natural gas hydrate additive discovery	20	3691071
Tuesday 3/22/2022		Oral - In-person	Biomaterials and Biointerfaces	Room 20BCD Theater 5 (SDCC)	COLL016A
	8:05 AM	McCue, Caroline	Controlling adhesion of mammalian cells during cell culture using stimulus-driven composite surfaces	20	3638046
	8:25 AM	Lusk, Bradley	Hydrated cable bacteria exhibit protonic conductivity over long distances	20	3641552
	8:45 AM	Ferrerres Cabanes, Guillem	Biopolymer molecular weight effect on hyaluronic acid-assisted silver nanoparticles synthesis and antimicrobial performance	20	3643892
	9:40 AM	Roy, Anindo	Fabrication of nanostructures with tunable aspect ratios for mechanobactericidal activity and cytocompatibility	20	3645146
	10:00 AM	Gautrot, Julien	Engineering liquid interfaces with viscoelastic 2D protein networks - microdroplet design for stem cell technologies	20	3646998
	10:20 AM	Kummer, Nico	Self-assembly of lysozyme aggregates with enhanced antimicrobial activity	20	3648490
Tuesday 3/22/2022		Oral - In-person	Biomaterials and Biointerfaces	Room 23C (SDCC)	COLL016B
	2:25 PM	Ogilvie-Battersby, James	Synthesis of photocrosslinkable gelatin/gum Arabic microcapsules as a safe and nontoxic alternative to traditional crosslinkers	20	3650482
	2:45 PM	Pinals, Rebecca	Predicting protein adsorption to carbon nanotubes with a supervised learning model	20	3650554
	3:05 PM	Ghosh, Sreyan	One-step curable, covalently immobilized coating that can kill bacteria, fungi, influenza and SARS-CoV-2 viruses	20	3653392
	3:40 PM	Loku Yaddehige, Mahesh	Multifunctional fluorine-19 magnetic resonance imaging (19F MRI) nanoparticles as theranostic agents	20	3654007
	4:00 PM	Yokoyama, Kazushige	Characterization of SARS-CoV-2 spike protein at nano-scale interface	20	3654613
Tuesday 3/22/2022		Oral - In-person	PUNC: Nanomaterials Research at Primarily Undergraduate Institutions	Room 23C (SDCC)	COLL040B
	8:05 AM	Toote, Lauren	Simple and inexpensive test for detection of lead (II) in drinking water utilizing colorimetric nanoparticles	20	3651024
	8:25 AM	Clar, Justin	Release and transformation nanoparticle additives from surface coatings on pristine & weathered pressure treated lumber	20	3650909
	8:45 AM	Tollefson, Emily	Investigations of nanoparticle-protein interactions	20	3661175

9:05 AM	Gerdon, Aren	DNA aptamers influence calcium materials mineralization dependent on pH	20	3658296
9:40 AM	Riley, Kathryn	Effect of bio-coronas on the release of silver from nanoparticle-containing textiles	20	3658716
10:00 AM	Buck, Matthew	Polyoxovanadate precursors for colloidal synthesis of multi-metal oxide nanocrystals	20	3662062
10:20 AM	Hanson, Lindsey	Limits of pseudoelasticity in gold nanocrystals	20	3638519
10:40 AM	Hughes, Steven	Lanthanide sensitized silver gallium sulfide (AGS) nanocrystals for improved visible light emission	20	3642605
Tuesday 3/22/2022	Oral - In-person	Experimental and Computational Methods for Predictive Self-Assembly	Room 24A (SDCC)	COLL042A
8:05 AM	Gang, Oleg	Programming nanoscale systems: From designed architectures to prescribed processes	30	3690924
8:35 AM	Macfarlane, Robert	DNA-directed assembly of materials and devices with intentionally programmed structure-property relationships	30	3690926
9:05 AM	Copp, Stacy	Sequence-encoded synthesis and hierarchical organization of DNA-stabilized nanoclusters	20	3660566
9:25 AM	Zhou, Yilong	Interfacial assembly of binary nanoparticle superlattices	20	3660793
9:45 AM	Carvalho Rocha, Brunno	Evaluation of the self-assembly behavior of colloidal particles with charged lobes via molecular dynamics simulations	20	3660375
10:25 AM	Chen, Qian	Electron videography of self-assembling nanoparticles into Maxwell mechanical frames and symmetry-breaking chiral lattices	30	3690927
10:55 AM	Amaro Marquez, Rocio	Modeling and interactions of a DOPC bilayer and cytochrome c on a AuNP surface	20	3656408
11:15 AM	Xie, Yu	Quantifying dual thiol ligands ratio on silver nanocubes based on inductively coupled plasma-mass spectrometry	20	3647821
Tuesday 3/22/2022	Oral - In-person	Experimental and Computational Methods for Predictive Self-Assembly	Room 24A (SDCC)	COLL042B
2:05 PM	Escobedo, Fernando	Tilting the balance between hexagonal and square quasi-2D crystalline colloidal assemblies by tuning entropic and energetic interactions	30	3690980
2:35 PM	Whitelam, Stephen	Learning to grow: Control of materials self-assembly using evolutionary reinforcement learning	30	3690928
3:05 PM	Manor, Ofer	Signatures of molecular surface forces in the self-assembly of binary mixtures of nanoparticles on a solid substrate	20	3649751
3:25 PM	Honaryar, Houman	Experimental and computational investigation of micelle-to-bilayer transition for a system of water-oil-cationic surfactant	20	3637695
3:45 PM	Hebner, Tayler	Association of alignment methodology and actuation of liquid crystalline elastomers	20	3654054
4:25 PM	Ortony, Julia	Intermolecular cohesion in amphiphilic self-assembly	30	3690929
4:55 PM	Hochbaum, Allon	Peptide stimuli-responsive assembly of supramolecular nanostructures	30	3690976
5:25 PM	Urbina, Andres	C-H vibrational frequency shift as a reporter of hydrophobic aggregation: An experimental and computational study	20	3659163
Tuesday 3/22/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 7 (Virtual Room)	COLL004E

10:00 AM	Hristova, Kalina	Membrane active peptide melittin induces reversible blood-brain barrier opening	25	3653805
10:25 AM	Ashkar, Rana	Cholesterol stiffening of phosphatidylcholine membranes depends on acyl chain unsaturation	25	3657217
10:50 AM	Kenworthy, Anne	New approaches to uncover how membrane rafts and caveolae form and function	25	3659620
11:15 AM	Wang, Hongyin	Loss of membrane asymmetry facilitates membrane vesiculation through decreasing membrane stiffness	25	3659887
11:40 AM	Doktorova, Milka	Challenging the dogma: Cell plasma membranes are asymmetric not only in lipid composition but also phospholipid and cholesterol abundance	25	3659730
12:05 PM	Singh, Pradeep Kumar	Decoding the EphA2 active states by negatively charged membrane lipid regulation through FCCS	25	3652527
12:30 PM	Wu, Tong	Indole facilitates antimicrobial transport across the bacterial peroplasm and cytoplasmic membrane	25	3647157
Tuesday 3/22/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 6 (Virtual Room)	COLL004F
3:00 PM	Safinya, Cyrus	Shape transitions in bare and polymer coated cationic liposomes with univalent and multivalent lipids	25	3654725
3:25 PM	Malmstadt, Noah	Effects of lipid oxidation on functional bilayer properties: Changes in mechanics, permeability, and protein activity	25	3661526
3:50 PM	Brown, Michael	Hydration and membrane lipids modulate G-protein-coupled receptor activation	25	3657387
4:15 PM	Johnson, David	Dynamic and equilibrium interactions between intrinsically disordered proteins and curved membranes	25	3661476
4:40 PM	Li, Alexander	Clock vesicles: Reconstituted circadian clocks in giant vesicles demonstrate binary-like states modulated by cell-like variability	25	3662035
5:05 PM	Subramaniam, Anand	Mechanistic insights enable high yield assembly of cell-mimetic giant vesicles in solutions of physiological ionic strengths	25	3661880
5:30 PM	Girish, Vaishnavi	Effect of surface concentration on the mechanism of GUV assembly	25	3660008
Tuesday 3/22/2022	Oral - Virtual	ACS Award in Surface Chemistry 2022: Symposium in honor of Miquel Salmeron	Zoom Room 11 (Virtual Room)	COLL009D
10:00 AM	Meyer, Ernst	Force microscopy of 2d materials	30	3650834
10:30 AM	Martin, Michael	Applications of broadband synchrotron infrared nano-spectroscopy	30	3651701
11:00 AM	Lauritsen, Jeppe	Mixed Co/Fe oxides on Au(111) in the electrocatalytic oxygen evolution	30	3651938
11:30 AM	Cuk, Tanja	Resolving catalytic mechanism at an electrode surface by ultrafast spectroscopy while tuning surface hydroxylation	30	3659811
12:00 PM	Jiang, Peng	Interface thermoelectrics	30	3655066
12:30 PM	Michaelides, Angelos	Understanding how water moves across the surfaces of materials with ultimate resolution	30	3656242
1:00 PM	Weatherup, Robert	Observing reactions at buried interfaces under realistic operating conditions	30	3662895
Wednesday 3/23/2022	Oral - Hybrid	Colloidal Gels	Room 22 (SDCC)	COLL002C

8:00 AM	Kashanchi, Glareh	Investigating silica-nanoparticle aggregation using in situ small-angle X-ray scattering for optimization of nanoparticle-based aerogels for window applications	20	3651726
8:20 AM	Macfarlane, Robert	Thinking bigger in nanoscale assembly: Macroscopic materials built from nanoparticle superlattices	30	3638150
8:50 AM	Kang, Jiho	Colorimetric quantification of linking in thermoreversible nanocrystal gel assemblies	20	3655951
9:25 AM	Eychmüller, Alexander	Electrocatalysis on metal aerogels	30	3658171
9:55 AM	Niederberger, Markus	Nanoparticle-based aerogels as 3-dimensional macroscopic photocatalysts	30	3656838
10:25 AM	Anslyn, Eric	Use of tunable orthogonal reversible covalent (TORC) bonding to control polymer morphology and nanocrystal assembly	30	3638749
10:55 AM	Sherman, Zachary	Mutual polarization method for simulating the plasmonic response of self-assembled nanoparticle gels	20	3658700
Wednesday 3/23/2022	Oral - Hybrid	Colloidal Gels Electrochemically-driven gelation of metal chalcogenide colloids: Opportunities and challenges for design of functional architectures	Room 22 (SDCC)	COLL002D
2:00 PM	Brock, Stephanie	Photonic colloidal gel driven by binary solvents	30	3642745
2:30 PM	Liu, Yun	Structuring liquids with chemically fueled interfacial assemblies	30	3639809
3:00 PM	Helms, Brett	Self-assembly of gels, clusters, and other modulated phases via a physically informed model	30	3651456
3:30 PM	Lindquist, Beth	Characterizing and sampling the disordered microphases of SALR models	30	3660864
4:10 PM	Charbonneau, Patrick	Metallization of colloidal crystals	30	3638103
4:40 PM	Olvera De La Cruz, Monica	Arrested emulsion gels: Interpenetrating 3D structure and mechanical properties	30	3658911
5:10 PM	Spicer, Patrick	In-situ modification of cellulose-alginate beads: Anionic and cationic adsorbents for the removal of charged pollutants from mining wastewater	30	3663840
5:40 PM	Georgouvelas, Dimitrios		20	3658349
Wednesday 3/23/2022	Oral - Hybrid	Surface Chemistry DNA-Based strategies for site-specific doping of silicon	Room 23A (SDCC)	COLL014C
2:20 PM	Liu, Haitao	Surface-attached polymer networks via C,H insertion crosslinking (CHic)	20	3654545
2:40 PM	Ruehe, Juergen	Sequential thiol-(aryl-maleimide) 'click' chemistry for stable surface conjugation of biomolecules to mesoporous silica	20	3659851
3:00 PM	Myres, Grant	Selective enrichment of the cancer biomarker hypermethylated DNA by MBD2 surface receptor density control	20	3662089
3:20 PM	Kolkman, Ruben	Polymer modulated dynamics at the oil/water interface	20	3651968
3:50 PM	Garrett, Paul	On the interaction of ionic liquids with single crystal surfaces	20	3654010
4:10 PM	Steinrueck, Hans-Peter	Tuning the surface reactivity and tribological performance of phosphonium-based ionic liquid by mixing bromide/phosphate anions	30	3654126
4:40 PM	Mangolini, Filippo	Cooperative ionic assembly governs carbon dioxide electrolysis in ionic liquid electrolytes	20	3656355
5:00 PM	Gebbie, Matthew		20	3661216

5:20 PM	Wimalasiri, Pubudu	Probing anion adsorption at a charged surfactant monolayer interface with sum frequency generation spectroscopy and molecular dynamics simulations	20	3662404
Wednesday 3/23/2022	Oral - Hybrid	Industry-Academia Dialogue	Room 23A (SDCC)	COLL029A
8:00 AM	Stebe, Kathleen	Industry-academe dialogue	180	3678920
Wednesday 3/23/2022	Oral - Hybrid	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations	Room 23B (SDCC)	COLL032D
8:00 AM	Chen, Jingyi	Controlling morphology of Ni-Fe-based nanocatalysts for oxygen evolution reaction	30	3662250
8:30 AM	Zhang, Sen	Controlled synthesis of metal phosphide/metal core/shell nanostructures for improved electrocatalysis	30	3655982
9:00 AM	Austin, Rachel	Probing the influence of metal oxide nanoparticle surfaces in catalysis	30	3641717
9:30 AM	Eagan, Nathaniel	Design of dilute palladium-indium alloy catalysts for the selective hydrogenation of CO ₂ to methanol	30	3677756
10:10 AM	Linic, Suljo	Atomistic characterization of physical and chemical characteristics of metal-nanoparticle/semiconductor interfaces on functioning water splitting photocatalysts	30	3656512
10:40 AM	Moores, Audrey	Applications of plasmonic catalysis to organic transformations	30	3662277
11:10 AM	Halas, Naomi	Plasmonic photocatalysis with antenna-reactor nanoparticle complexes	30	3641127
11:40 AM	DeSario, Paul	Effect of CeO ₂ aerogel supports on the activity, speciation, and stability of nickel and copper nanoparticles for CO oxidation	20	3662170
Wednesday 3/23/2022	Oral - Hybrid	Controlled Assembly of Charged Soft Matter	Room 23B (SDCC)	COLL034A
2:05 PM	Kim, Baekmin	Metal-polymer framework monolayers at oil/water interfaces	20	3643534
2:45 PM	guang, chu	Transfer imprinting of photonic microparticle array through self-assembled nanocellulose 'glue'	20	3648774
3:05 PM	Kral, Petr	Modeling of superionic nanoparticles lattices and superparamagnetic nanoparticle clusters	20	3657809
3:40 PM	Zapotoczny, Szczepan	Nanocapsules based on amphiphilic polyelectrolytes serving as dispersible reactors	20	3658223
4:00 PM	Edwards, Chelsea	Multiphase complex coacervate droplets from two-polyelectrolyte systems	20	3662135
4:20 PM	Johnston, Anna	Conjugated polyelectrolyte-based complex fluids as aqueous exciton transport networks	20	3662165
Wednesday 3/23/2022	Oral - In-person	Nanomaterials	Room 24A (SDCC)	COLL012F
8:00 AM	Zhu, Xiaoshan	Bright, low-energy excitable and fluorescence-long-lived Mn-doped I(II)-III-VI nanocrystals for time-gated fluorescence measurement	20	3648771
8:20 AM	Ogilvie, Sean	Interfacial assembly of liquid-exfoliated 2D materials: Nanosheet-stabilized emulsions and thin-film devices	20	3653640
8:40 AM	Moore, David	Ultrasensitive molecular sensors based on real-time impedance spectroscopy in solution-processed 2D materials	20	3662296
9:00 AM	Kharel, Priti	Atomic-resolution imaging of small molecule assemblies on graphene	20	3661074
9:20 AM	Clifford, Keiran	Size selection of liquid-exfoliated graphene results in record-high electrical conductivity in printed networks	20	3649241
10:00 AM	Wood, Hannah	Size-dependent porosity defines conductivity in liquid-exfoliated nanosheet networks	20	3660736

10:20 AM	Woods, Mackenzie	Aqueous MXene dispersion rheology & phase behavior: Effects of sheet size	20	3661171
10:40 AM	Kempa, Thomas	Synthetic manipulation of dimensionality and strain in transition metal dichalcogenide nanocrystals	20	3662375
11:00 AM	Ambade, Swapnil	Molecular interactions of Ti3C2 MXenes with N-substituted zwitterionic biological buffers and their impact on MXenes' properties	20	3657796
11:20 AM	Hudson, Blake	Training a machine learning model to predict metal release from complex metal oxide surfaces	20	3661237
Wednesday 3/23/2022	Oral - In-person	Nanomaterials	Room 24A (SDCC)	COLL012G
2:00 PM	Yee, Daryl	Mechanical properties and deformation behavior of self-assembled nanoparticle superlattices	20	3655518
2:20 PM	Vitale, Jacob	Noncovalent complexation and assembly of Boron nitride nanotubes using biomolecules	20	3658643
2:40 PM	Yang, Yuqing	Hydrogel and coacervate formation from uranyl peroxide clusters through counterion-mediated attraction	20	3651409
3:00 PM	Siahcheshm, Parya	Comparison of linear, cyclic, and aromatic reagents in nitrogen-doped carbon dots	20	3638895
3:20 PM	Chumakov, Andrei	Ultrathin hard magnetic coatings with perpendicular strong anisotropy by a spray deposition technique	20	3642812
4:00 PM	Crawford, Scott	Synthesis and quantum metrology of metal-organic framework-coated nanodiamonds containing nitrogen vacancy centers	20	3643141
4:20 PM	Sagiv, Jacob	Metal-organic nanowire-like entities on silicon fabricated by interfacial electron beam lithography exhibit puzzling electrical conduction	20	3656579
5:00 PM	Roman, Benjamin	Fluorine and tin co-doped indium oxide nanocubes for tunable IR plasmonics	20	3658631
5:20 PM	Kuo, Yu-An	Revealing nanocluster beacon design rules using an NGS chip	20	3650497
5:40 PM	Kuszynski, Jason	Effect of morphology on WO3-x carrier effective mass investigated through magnetic circular dichroism	20	3658397
Wednesday 3/23/2022	Oral - In-person	Biomaterials and Biointerfaces	Room 20BCD Theater 4 (SDCC)	COLL016C
8:05 AM	Baio, Joe	Molecular-level insights into novel wet adhesion systems found in the natural world.	20	3655811
8:25 AM	Kim, Dajeong	Versatile RNA membrane-coated microneedles for subcutaneous drug delivery	20	3656202
8:45 AM	Alhankawi, Ahmad	Relationship between hydrophobicity and drug-protein binding in human serum albumin: A quartz crystal microbalance study	20	3656884
9:05 AM	Hong, Celestine	Modulating nanoparticle size to understand factors affecting hemostatic efficacy and maximize survival in a lethal inferior vena cava injury model	20	3657213
9:40 AM	Gole, Matthew	Adsorption and film formation of immunoglobulins on wrinkled and crumpled surfaces	20	3657532
10:00 AM	Kurnaz, Leman	Cationic cholic acid derivatives as potential antimicrobial agents	20	3657595
10:20 AM	Carpenter, Andrew	Influence of lipid specificity on dysferlin C2A-lipid binding interactions	20	3657734
Wednesday 3/23/2022	Oral - In-person	Biomaterials and Biointerfaces	Room 20BCD Theater 4 (SDCC)	COLL016D

		Orientation analysis of hierarchically oriented molecular self-assembled systems with line scanning vibrational sum frequency generation hyperspectral microscopy and machine learning	20	3657804
2:05 PM	Wu, Zishan			
2:25 PM	Yeh, Shang-Lin	Uncovering the mechanisms of daptomycin antibiotic removal using engineered ion exchange resins	20	3659769
2:45 PM	Prucker, Oswald	Surface-attached polymer networks for glaucoma surgery	20	3659808
3:05 PM	Ostadosse, Fatemeh	Function-adaptive clustered nanoparticles reverse Streptococcus mutans dental biofilm and maintain microbiota balance	20	3659815
3:40 PM	Zhao, Xiao	Graphene-based platform for investigation of protein assembly by infrared nanospectroscopy	20	3660012
4:00 PM	Sanchez-Moran, Hector	Understanding design rules for optimizing the interface between enzymes and copolymer brushes	20	3660151
4:20 PM	Fountain, Julia	Towards non-stick silk: Controlling the hydrophobicity of silk fibroin protein	20	3660492
Wednesday 3/23/2022	Oral - In-person	Basic Research in Colloids, Surfactants and Interfaces	Room 20BCD Theater 5 (SDCC)	COLL018E
8:00 AM	Hasan, Mohammad Jahid	Effect of cellulose/Fe3O4 and lignin/ Fe3O4 nanoparticles on the ternary liquid/liquid equilibrium of castor oil/water/ethanol mixtures	20	3656946
8:20 AM	Liu, Xinhao	Interchain hydrogen bonding drives the coacervation of non-ionic polyamides and poly(ester amide)s	20	3661856
8:40 AM	Parajuli, Sanjiv	Characterization of liquid-liquid interfaces stabilized by chitin and cellulose nanocrystals	20	3656843
9:00 AM	Yoon, Roe-Hoan	Thermodynamic analysis of the stability of the wetting films formed on hydrophobic gold surfaces	20	3653909
9:20 AM	Rasheed, Abdur	Precipitation dynamics of respiratory fluid sessile droplets on impermeable surfaces	20	3658214
9:40 AM	Wei, Xiaoshuang	Effect of growth dynamics on polymer wetting at fluid interfaces via initiated chemical vapor deposition (iCVD)	20	3661712
10:00 AM	Piner, Emily	Tunable barrier and mechanical properties of bacterial nanocellulose composite films	20	3677692
10:20 AM	Zarzar, Lauren	Coloration by total internal reflection and interference at microscale interfaces	20	3645487
Wednesday 3/23/2022	Oral - In-person	Synthetic Amphiphiles and Formulations for the Delivery of Drugs, Nucleic Acids and Proteins	Room 23C (SDCC)	COLL030A
8:00 AM	Garanger, Elisabeth	Oxidation-responsive elastin-like polypeptide conjugates for PDT/RDT applications	30	3658545
8:30 AM	Fujii, Shota	Effect of PEG molecular weight on the in vivo fate of PEGylated core cross-linked nanoparticles	30	3655043
9:00 AM	Brega, Valentina	Cleavable polymer amphiphiles for enhanced photodynamic therapy	30	3642954
9:45 AM	Mohamed, Mohamed	Well-defined pH-responsive self-assembled block copolymer for effective co-delivery of doxorubicin and antisense oligonucleotide to breast cancer cells	30	3661965
10:15 AM	Ilies, Marc	Interfacial-engineered self-assembled block copolymer micelles for efficient docetaxel delivery in breast cancer therapy	30	3678136
10:45 AM	Kabanov, Alexander	Morphology, partitioning and pharmacological performance in block copolymer systems	30	3677996
Wednesday 3/23/2022	Oral - In-person	Synthetic Amphiphiles and Formulations for the Delivery of Drugs, Nucleic Acids and Proteins	Room 20BCD Theater 5 (SDCC)	COLL030B

2:00 PM	Philips, Laura	Label-free viability assay using holographic video microscopy	30	3677740
2:30 PM	Aryal, Santosh	Improving pharmacokinetics and enhancing the contrast of gadolinium-based contrast agents	30	3677725
3:00 PM	Ilies, Marc	Carbonic anhydrase IX- targeted nanosystems for doxorubicin delivery to hypoxic tumors	30	3678968
3:45 PM	Sakurai, Kazuo	Novel cyclodextrin-based nanoparticle delivering alpha mangostin to treat brain ischemia	30	3657927
4:15 PM	Parhiz, Hamideh	Targeted lipid nanoparticle platform for in vivo Delivery of mRNA therapeutics	30	3678109
4:45 PM	Brenner, Jacob	Hidden danger in lipid nanoparticles and other gene therapy vectors: Pre-existing diseases dramatically impact nanotoxicology, but solutions will not remain hidden	30	3678085
Wednesday 3/23/2022	Oral - In-person	Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations	Room 23C (SDCC)	COLL032E
2:00 PM	Ross, Michael	Manipulating the structure and properties of noble metal nanoparticles using post-transition elements	30	3656333
2:30 PM	Mureithi, Ann	Hole scavengers: An important factor in photocatalytic reduction of nitrobenzene using cadmium sulfide quantum Dots (CdS QDs)	20	3660376
2:50 PM	Chen, Ou	Composition and morphology controls of halide perovskite nanocrystals for photocatalysis and optoelectronic applications	30	3643080
3:20 PM	Wu, Nianqiang	Roles of gold and silver nanoparticles in photocatalysis and photoelectrocatalysis	30	3655376
4:30 PM	Buonsanti, Raffaella	Shape-controlled Cu nanocrystals to unlock selectivity pathways in the electrochemical CO ₂ reduction reaction	30	3659718
5:00 PM	Ye, Xingchen	Strategies toward shape-controlled multimetallic copper-based nanocrystal catalysts	30	3668333
5:30 PM	Huang, Yu	Understanding the nanoscale structure-function relation in Pt-alloy ORR catalysts	30	3662493
Wednesday 3/23/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 11 (Virtual Room)	COLL004G
10:00 AM	Liu, Chung-Hao	Controllable polymer nano-ring synthesized via a lipid self-assembled template	25	3657307
10:25 AM	London, Erwin	Loss of plasma membrane lipid asymmetry can induce ordered domain (raft) formation	25	3652206
10:50 AM	Nagao, Michihiro	Relationship between viscosity and acyl tail dynamics in lipid bilayers	25	3651161
11:15 AM	Marquardt, Drew	Mechanical mechanism for E-cigarette/vaping associated lung injury (EVALI)	25	3653788
11:40 AM	Krivic, Hannah	Erythro-PmBs: A novel polymyxin B delivery system using antibody-conjugated hybrid erythrocyte liposomes	25	3657182
12:05 PM	Maltseva, Sofiya	Disease-associated mutations in α -synuclein affect binding-site identity and affinity for lipid-membranes	25	3661579
12:30 PM	Kerr, Daniel	Mathematical model for the dependence of peripheral membrane binding proteins on lipid composition	25	3656792
Wednesday 3/23/2022	Oral - Virtual	Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 12 (Virtual Room)	COLL004H
3:00 PM	Kinnun, Jacob	Amantadine interacts with disordered lipids in phase separated membranes	25	3659542

	3:25 PM	Scott, Haden	Heavy water influences the memcapacitive behavior of biomimetic membranes suitable for neuromorphic devices	25	3651727
	3:50 PM	Collier, Charles	Soft, biologically inspired materials for neuromorphic memristors and memcapacitors	25	3659307
	4:15 PM	Podolsky, Kira	Semisynthesis of functional transmembrane proteins in giant vesicles	25	3637421
	4:40 PM	Walker, Robert	Amino acid effects on solute partitioning into model biological membranes	25	3661263
	5:05 PM	Duncan, Katelyn	Quantitative membrane partitioning studies of ecologically relevant synthetic organic molecules	25	3662158
	5:30 PM	Kitt, Jay	Dipolar coupling and phase segregation in mixed deuterated and protiated phospholipid vesicle membranes	25	3662450
Wednesday 3/23/2022		Oral - Virtual	Basic Research in Colloids, Surfactants and Interfaces	Zoom Room 6 (Virtual Room)	COLL018A
	3:00 PM	Mullen, Thomas	Patterning organosilane nanostructures using particle lithography	20	3643097
	3:20 PM	Chapman, Sarah	Effects of macromolecular crowding on the formation and properties of complex coacervates	20	3658522
	3:40 PM	Raufman, Benjamin Devadas, Mary Sajini	Novel cobalt-doped bi-icosahedron Au ₂₅ -xCo _x clusters	20	3649050
	4:00 PM	El Seoud, Omar	Effects of head group volume on the aggregation of 1-(n-hexadecyl)-3-Cm-imidazolium bromide and chloride surfactants in aqueous solutions	20	3651028
	4:20 PM	Lee, Min-Sang	Molecular dynamics analysis of the frequency-dependent dielectric response of water/AOT/isooctane reverse micelles	20	3637232
	4:40 PM	Mumma, Olivia	Fluorescence analysis of Hofmeister anion interactions with coumarin	20	3638127
	5:00 PM	Ma, Yingzhen	Self-assembly of fatty acid on aminopropyl functionalized silica nanoparticles	20	3660570
	5:20 PM	Chen, Xiongyu	Stable CO ₂ /water foam with ultralow concentration of amine-coated-nanoparticles and surfactant	20	3661315
	5:40 PM	Alexander, William	Toward ready-to-go libraries of environmental amorphous surfaces to allow rapid, accurate estimation of organic contaminant interfacial behavior	20	3662414
	6:00 PM	Nishizawa, Yuichiro	Effect of chemical species on the structure and thermoresponsiveness of hydrogel microspheres	20	3656461
	6:20 PM	Venkateshwarlu, Akepogu	Effect of surface wettability on droplet formation in a cross-flow microfluidic system	20	3648447
	6:40 PM	Mitra, Subhadeep	Paper based biosensors for early detection of oral cancer from salivary biomarkers	20	3653325
Wednesday 3/23/2022		Oral - Virtual	Controlled Assembly of Charged Soft Matter	Zoom Room 7 (Virtual Room)	COLL034B
	10:05 AM	Sasaki, Yuma	Non-close-packed arrangement of soft elastomer microspheres using self-organization at the air/water interface	20	3646826
	10:25 AM	Jennings, James	High throughput synthesis and self-assembly screening of multi-tailed lipidoids	20	3660187
	10:45 AM	Chen, Xiongyu	Cross-linked polyelectrolyte complex nanoparticles for controlled release in seawater	20	3661218
	11:05 AM	Santore, Maria	Particle-integrated complex coacervates and the role of surface brushes	20	3662371

Thursday 3/24/2022	Oral - Hybrid	Colloidal Gels	Room 22 (SDCC)	COLL002E
8:00 AM	Morlet-Decarnin, Lise	Time-composition superposition principle in suspensions of cellulose nanocrystals	20	3658407
8:20 AM	Legrand, Gauthier	Phase diagram and rheology of polymer-carbon black aqueous suspensions	20	3656498
8:40 AM	Saez Cabezas, Camila	Colloidal metal oxide nanocrystal gels via depletion attractions	30	3646190
9:25 AM	Osuji, Chinedum	Structure and rheology of diverse physical gels and jammed liquid crystals	30	3661033
9:55 AM	Hsiao, Lilian	Spatiotemporal heterogeneities in flowing colloidal gels	30	3653635
10:25 AM	Schultz, Kelly	Defining the structure and properties of colloidal rod systems during dynamic phase transitions	30	3656335
Thursday 3/24/2022	Oral - Hybrid	Surface Chemistry	Room 23A (SDCC)	COLL014D
8:00 AM	Chen, Yunhua	Revealing the surface structure of CdSe nanocrystals by dynamic nuclear polarization-enhanced ⁷⁷ Se and ¹¹³ Cd solid-state NMR spectroscopy	20	3642722
8:20 AM	Bae, Gi Nam	Heterojunctions of Pd nanocluster on monolayer MoS ₂ for light induced room temperature hydrogen sensing	20	3653168
8:40 AM	Van Patten, Paul	Qualitative analysis of colloidal nanocrystal surface chemistry: Effects of purification, characterization of complex surface ligand mixtures and desorption activation energies via TD-DART-MS	20	3657829
9:00 AM	Cavey, Kevin	Thermal desorption direct analysis in real-time mass spectrometry: A new method for colloidal nanocrystal surface ligand characterization	20	3658103
9:20 AM	Bobbitt, Scott	Interactions of environmental species with pristine and defective MoS ₂	20	3650246
10:20 AM	Zhao, Xiao	Interface sensitivity in electron/ion yield X-ray absorption spectroscopy: the TiO ₂ -H ₂ O interface	20	3659979
10:40 AM	Rivera, Victoria	First principles and thermodynamics modeling of Ti ₃ C ₂ T ₂ (T = O, OH, F, O/F, O/OH, OH/F) MXene surface terminations at varying pH	20	3661289
11:00 AM	Hettiarachchi, Eshani	Reactions of alpha-pinene with SO ₂ and NO ₂ on hematite surface	20	3662177
11:20 AM	Wang, Chen	Reconstructing the surface of colloidal lead halide perovskite nanocrystals for functionalization	20	3660597
Thursday 3/24/2022	Oral - Hybrid	Biomaterials and Biointerfaces	Room 23B (SDCC)	COLL016E
8:05 AM	Alvarado, Juan	Role of extracellular polymeric substances in the wetting properties of biofilms	20	3661310
8:25 AM	Milam, Valeria	Expanding a non-evolutionary aptamer screening approach to gold nanoparticle targets	20	3661376
8:45 AM	Li, Yuan	Peptide-directed synthesis and solid-state NMR characterization of hydroxyapatite nanosheets	20	3661391
9:20 AM	Zauscher, Stefan	Microphase separation of resilin-like and elastin-like diblock copolypeptides in concentrated solutions and surfaces	20	3661636
9:40 AM	Frey, Shelli	Interaction of the huntingtin N-terminal sequence with model cell membranes	20	3661671
10:00 AM	Tseng, Yen-Ming	Post-fabrication RGD-functionalized 3D-printed scaffolds for migration of human dermal fibroblasts and their application in excisional wound rat model	20	3661908

		Properties, characterization and applications of ceria nanoparticles as biomimetic materials in bioanalysis and beyond	20	3691065
Thursday 3/24/2022	Andreescu, Emanuela Oral - In-person	Basic Research in Colloids, Surfactants and Interfaces Varied molecular weight polyethylene oxide (PEO) and butyl acrylate modified comb polymers as potential additives for firefighting foams	Room 20BCD Theater 5 (SDCC)	COLL018F
	8:00 AM Hinnant, Katie	Sonochemically engineered hybrid metal/bio-based nanoparticles coating for prevention of <i>P. aeruginosa</i> biofilm formation on contact lenses	20	3645259
	8:40 AM Puertas, Antonio	Using in situ small-angle X-ray scattering to examine structural changes of silica aerogels dried under directional flow at ambient pressure for window insulation applications	20	3656412
	9:00 AM Kashanchi, Glareh	Heteroacene-based amphiphilic fluorescent nanoparticles for bioimaging	20	3657858
	9:20 AM Ranathunge, Tharindu		20	3661558
	9:40 AM Chandrawati, Rona	Polydiacetylene-based sensors to detect food spoilage	20	3653424
	10:00 AM AHN, Dong June	Antifreezing peptide-Au colloids	20	3653430
	10:20 AM Gray, Dominic	Degradable dual-responsive core-shell nanogels with tuneable aggregation behaviour	20	3653739
Thursday 3/24/2022	10:40 AM Nasser, Mustafa Oral - In-person	Settling behaviour of colloidal fine cuttings in fiber-containing polyanionic drilling fluids Synthetic Amphiphiles and Formulations for the Delivery of Drugs, Nucleic Acids and Proteins	Room 23C (SDCC)	COLL030C
	8:00 AM Takano, Shin	Molecular bottlebrush for delivering immunostimulatory CpG ODN	30	3671509
	8:30 AM Montier, Tristan	Aerosol-mediated non-viral lung gene therapy: A structure/activity nanocomplexes' study.	30	3677722
	9:00 AM Mitchell, Michael	In vivo nucleic acid delivery systems for immunoengineering and gene therapy	30	3667973
	9:45 AM Stanciu, Lia	Surface engineered functional two-dimensional materials for viral nucleic acid sensing	30	3668185
	10:15 AM Fischer, Nicholas	Formulation and in vivo delivery of mRNA using functionalized HDL-mimetics	30	3677731
Thursday 3/24/2022	10:45 AM Dahlman, James Oral - In-person	Delivering RNA to non-liver tissues by testing thousands of nanoparticles in vivo Frontiers and Challenges in Nanoparticle-Mediated Chemical Transformations	Room 24A (SDCC)	COLL032F
	8:00 AM Sun, Shouheng	New strategies to the design of nanocatalysts for selective CO ₂ reduction	30	3656331
Thursday 3/24/2022	8:30 AM Batugedara, Tharanga Oral - Virtual	Co ₂ -xRh _x P nanoparticles as electrocatalysts for the hydrogen production: Catalytic stability and Pt interference Biomembrane Synthesis, Structure, Mechanics, and Dynamics	Zoom Room 7 (Virtual Room)	COLL004I
	10:00 AM Chen, Qian	Electron videography of nanoscale dynamics in membrane protein nanodiscs	25	3657626
	10:25 AM Doughty, Benjamin	Self-assembly driven by solvation at liquid/liquid interfaces: A passive means to impart surface functionality	25	3658508
	10:50 AM Barrera, Francisco	<i>C. albicans</i> virulence factor Candidalysin must assemble into polymers in solution to form the membrane pores	25	3651428

11:15 AM	Heberle, Frederick	Development of cryo-EM for probing lateral organization in biomembranes	25	3658557
11:40 AM	Mashali, Farzin	Post bilayer formation direct injection for studying nanoparticle-membrane interactions in droplet interface bilayers	25	3654057
12:05 PM	koner, subhadeep	Hybrid droplet interface bilayers (hDIB) formed from lipids and amphiphilic copolymers: Toward improved biomimetic membranes	25	3650522
12:30 PM	Basham, Colin	Entrapment of hydrophobic nanoparticles in planar lipid bilayers for electrophysical analysis of particle-membrane interactions	25	3644801
Thursday 3/24/2022	Oral - Virtual	Nanomaterials	Zoom Room 2 (Virtual Room)	COLL012A
10:00 AM	Hinrichs, Karsten	Infrared and Raman spectroscopic analysis of local electrochemical modification of graphene	20	3660133
10:20 AM	Ronghe, Anshaj	Enhanced water evaporation through functionalized nanoporous graphene	20	3656171
10:40 AM	Hörmann, Lukas	Switching the interface work function via a bi-stable molecule on Pt(111)	20	3659143
11:00 AM	Carr, Amanda	Ion adsorption on graphene oxide monolayers at the air/water interface	20	3652838
11:20 AM	Chakrabarti, Arkita	Does interfacial energy contribute to the stabilization of 3D-nanostructured perovskite phase CsPbI ₃ ?	20	3650222
11:40 AM	Ma, Yingzhen	Adsorption and catalytic activity of gold nanoparticles under confinement: Effect of pore size and dispersion salinity	20	3656888
12:20 PM	Sims, Christopher	Effects of surfactant chemistry and polymer choice on single-wall carbon nanotube extraction conditions in aqueous two-polymer phase extraction	20	3660712
12:40 PM	Vailonis, Kristina	LCTEM as tool for growth analysis of metal-organic nanotubes	20	3654178
1:00 PM	Powers, Eric	Strong electron-phonon coupling in 2D silver phenyl selenolate revealed by impulsive vibrational spectroscopy	20	3661411
1:20 PM	LEE, WON KYU	DNA-poly-L-lysine polyplex Core@Gold shell nanostructures for photothermal therapy	20	3649158
1:40 PM	Deng, Tong	Directional water vapor transfer Janus micronano spherulite membranes for particulate matter filtration and high efficiency broad-spectrum sterilization	20	3657365
Thursday 3/24/2022	Oral - Virtual	Surface Chemistry	Zoom Room 2 (Virtual Room)	COLL014A
3:00 PM	Hu, Shujun	Tracing the defect of the metal oxide surfaces by small probing molecule and IR spectra	20	3643263
3:20 PM	Frederick, Esther	Area-selective atomic layer deposition templated by atomic precision fabrication	20	3651209
3:40 PM	Primera, Oliva	Influence of substrate and intermolecular interactions on the vibrations of supported polyoxometalate spin qubits	20	3659603
4:00 PM	Jeindl, Andreas	Why are polymorphs of acenequinones on Ag(111) so different?	20	3658389
4:20 PM	Tosoni, Sergio	Theoretical and experimental insights on N-heterocyclic carbenes adsorption on copper, and copper-supported oxide thin films	20	3658032

4:40 PM	Shaikh, Nida	Carbon particulate adsorption to aqueous – air interfaces and their effects on model biological membrane structure and organization	20	3661680
5:00 PM	Hosseini, Mohsen	Efficient inactivation of SARS-CoV-2 and killing of bacteria using transparent silver oxide coating	20	3655763
5:20 PM	Wang, Jianchao	Insights into adsorption of humic substances on various graphitic carbon nitride	20	3655183
5:40 PM	Calcinelli, Fabio	Substrate-induced charge transfer influencing multilayer growth: Insights from DFT and machine learning	20	3658782
6:00 PM	Kelkar, Atharva	Dual-loop active learning method to study the hydrophobicity of chemically heterogeneous surfaces	20	3641794
6:20 PM	Dhakar, Jitendra	Pressure driven flow of ionic liquid through asymmetrically charged contraction-expansion microfluidic device	20	3659310
Thursday 3/24/2022	Oral - Virtual	Biomaterials and Biointerfaces	Zoom Room 7 (Virtual Room)	COLL016F
3:05 PM	Behzadinasab, Saeed	Transparent surface coatings that kill antimicrobial-resistant bacteria and inactivate the COVID-19 virus within minutes	20	3644946
3:25 PM	Patil, Deepak	Engineered nanotopography on 3D-printed polymer scaffolds to impart mechanobactericidal property	20	3648464
3:45 PM	Clem, Carlie	Modularly designed polyacrylate microgels for antibacterial activity against Staphylococcus aureus	20	3649311
4:05 PM	Li, Yujie	Influence of efflux on molecular transport across bacterial membranes	20	3651049
4:25 PM	Palivan, Cornelia	Mimics of natural organelles and cells by equipping synthetic compartments with stimuli-responsive assemblies and biomolecules	20	3652176
5:00 PM	Van Tassel, Paul	Polyelectrolyte-based biomaterials: Influence on protein structural stability	20	3654365
5:20 PM	Raffaini, Giuseppina	Surface chemistry, crystal structure, size and topography role in the albumin adsorption on TiO ₂	20	3656239
5:40 PM	Kumari, Sushma	Anatase: A molecular dynamics study	20	3656239
6:00 PM	Schlenoff, Joseph Ducker, William	Development of photocrosslinkable Kappa-carrageenan bioink to fabricate cell-laden scaffolds with high cytocompatibility	20	3656587
6:20 PM	Hosseini, Mohsen	Orthogonal strategies for biocompatible surfaces	20	3656831
		Role of surface porosity in antimicrobial coatings	20	3657427