

Sci-Mix Directory - ACS Fall 2024

Monday, August 19, 8:00 – 10:00 PM

Location: Hall A-C (Colorado Convention Center)

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Division of Agricultural and Food Chemistry (AGFD)

Characterization and discrimination of yerba santa by NMR-based metabolomic approach

(4104191)

Division of Agricultural and Food Chemistry

Presenter(s): Jianping Zhao

Covalent immobilization of lactase via amine-epoxide reaction on vapor-deposited polymer thin films: A kinetic study

(4109014)

Division of Agricultural and Food Chemistry

Presenter(s): Felicia Fianu

Differences in the metabolic content of two cecropia species from Tabasco, Mexico

(4108134)

Division of Agricultural and Food Chemistry

Presenter(s): Carlos Ernesto Lobato Garcia

Effect of cooking conditions on chickpea flour functionality and its protein physicochemical properties

(4105231)

Division of Agricultural and Food Chemistry

Presenter(s): Shan Hong

Effect of sorghum grains in kombucha fermentation

(4103872)

Division of Agricultural and Food Chemistry

Presenter(s): Faith Zillinger | Utku Uysal | Umut Yucel

Effects of unsaturation and polar compounds of vegetable oils on the properties of sunflower wax oleogels

(4088356)

Division of Agricultural and Food Chemistry

Presenter(s): Hong-Sik Hwang

Enhancing the functionality and gut fermentability of insoluble dietary fibers from oat husks via subcritical water treatment

(4106692)

Division of Agricultural and Food Chemistry

Presenter(s): Jung Mun Yang

Evaluating acidity levels in packaged coffee to enhance product label accuracy

(4091367)

Division of Agricultural and Food Chemistry

Presenter(s): Abdulhakim Sharaf Eddin

Evaluating the effects of natural antioxidants on the quality and stability of refined canola oil during deep frying

(4103955)

Division of Agricultural and Food Chemistry

Presenter(s): Tamany M Alanezi

Evaluation of the nutritive value of protein concentrates from solanum macrocarpon from Nigeria

(4107666)

Division of Agricultural and Food Chemistry

Presenter(s): Oluwayemi Olanike Esther Onawumi | Abiodun Sodamade | Olubunmi Abiola Adewusi | Folake Abiodun Amoo

Exploring the potential of nitrogen plasma as a non-thermal alternative in fruit juice processing

(4105564)

Division of Agricultural and Food Chemistry

Presenter(s): Si-Ting Lai | Yu-Jou Chou

Fate and transport of manganese oxide nanomaterials in capsicum annum L plants

(4109255)

Division of Agricultural and Food Chemistry

Presenter(s): Sharif Uddin Ahmed

Got lead? An analytical approach to the determination of trace metal concentrations in insulated cups

(4094169)

Division of Agricultural and Food Chemistry

Presenter(s): Victoria Hennick

Improving astronaut diets in space: Enhanced preservation and nutrition through plasma-treated peas

(4106431)

Division of Agricultural and Food Chemistry

Presenter(s): Lin-Yong Aaron Chen

In vitro fermentation shows polyphenol and fiber blends have an additive beneficial effect on gut microbiota states

(4102354)

Division of Agricultural and Food Chemistry

Presenter(s): Jordan A Whitman

Measurement of urinary sulfate in domestic swine by conductometric titration and ion chromatography

(4106077)

Division of Agricultural and Food Chemistry

Presenter(s): Linda Dalquest Schultz

Medium-throughput phenotyping approach of quantification of 11s/7s protein ratio in soybean

(4108095)

Division of Agricultural and Food Chemistry

Presenter(s): Yaojie Zheng

Modification of purified Ana o 3 with phenylglyoxal disrupts antibody binding

(4103984)

Division of Agricultural and Food Chemistry

Presenter(s): Christopher P Mattison

Nanoemulsion with Lactobacillus-derived exopolysaccharide potentiates the antimicrobial activity of eugenol to protect fresh produce against foodborne pathogens and biofilms

(4109403)

Division of Agricultural and Food Chemistry

Presenter(s): Sangeeta Balyan

Natural products magnetic resonance database (NP-MRD): Comprehensive resource for NMR data enabling natural products discovery and understanding

(4110287)

Division of Agricultural and Food Chemistry

Presenter(s): John R Cort

Performance comparison of the new type II Egg MIoBS ELISA kit with its current version for FDA's regulatory purposes

(4092233)

Division of Agricultural and Food Chemistry

Presenter(s): Prasad Rallabhandi

Performance comparison of the new type II version milk MIoBS ELISA kits with their current version, using commercial and spiked foods

(4090751)

Division of Agricultural and Food Chemistry

Presenter(s): Chung Cho

Performances of non-meltable, reusable and biodegradable stationary cooling media "jelly ice cubes"

(4101655)

Division of Agricultural and Food Chemistry

Presenter(s): Jiahan Zou

Recovery of Polyhydroxyalkanoates from Haloferax mediterranei utilizing glycerol waste

(4097255)

Division of Agricultural and Food Chemistry

Presenter(s): Fujunzhu Zhao

Re-thinking use of salicylic acid-based poly(anhydride-es4103263ter)s: From biomedical to agricultural applications

(4106132)

Division of Agricultural and Food Chemistry

Presenter(s): Victoria Batiz

Stability tests of the nitrogen radical containing 2,2-diphenyl-

1-Pirylydrazyl (DPPH) in different conditions

(4109007)

Division of Agricultural and Food Chemistry

Presenter(s): Ying Hu

Use of avocado oil oleogels as fat substitutes in chicken sausage

(4103446)

Division of Agricultural and Food Chemistry

Presenter(s): Christopher Carter

Division of Agrochemicals (AGRO)

Agricultural plastic waste usage and perspectives of Midwestern farmers: Survey-based research

(4109436)

Division of Agrochemicals

Presenter(s): Julie Rieland

Biopolymeric microformulations as a carryover reducer in row crops

(4105760)

Division of Agrochemicals

Presenter(s): Mateus Vicente Alves

Comparative analysis of Polish traditional bread and teff injera: Culinary heritage and nutritional perspectives

(4100351)

Division of Agrochemicals

Presenter(s): Temesgen Minase Minase Woldegebriel

Development of isoxazoline insecticides with reduced human brain exposure

(4107921)

Division of Agrochemicals

Presenter(s): Sarah McComic

Enhancing herbicide effectiveness and safety through AI predictions, laboratory derivatives, and field testing

(4099041)

Division of Agrochemicals

Presenter(s): David Davis

EnzyRxn-GPT: A generative platform for enzymatic reaction prediction by fusing protein and chemical language models

(4105926)

Division of Agrochemicals

Presenter(s): Zhenjiao Du

Exploring microbes and microbial semiochemicals affecting the foraging behavior of *Drosophila suzukii*

(4099817)

Division of Agrochemicals

Presenter(s): Zhangrong Song

Fermentation-based extraction of polyphenolic bioactive compounds from *Larrea tridentata* by *Trichoderma asperellum*

(4106560)

Division of Agrochemicals

Presenter(s): Muyideen Olaitan Bamidele

Field application of attractant lures to enhance land management strategies

(4087819)

Division of Agrochemicals

Presenter(s): Jessica Griesheimer

From Protein-ligand interaction fingerprints to field application: A novel multitarget framework for new insecticide entities

(4107542)

Division of Agrochemicals

Presenter(s): Felipe Victoria

In Silico and In Vitro approaches for the identification of natural volatile compounds as potential insecticides

(4109877)

Division of Agrochemicals

Presenter(s): Angie Daniela Torres Garcia

Increasing carbon storage and nitrate retention in highly productive soils under corn and soybean by application of biochar derived from an invasive tree species

(4094432)

Division of Agrochemicals

Presenter(s): Britt Fossum

Join us in shaping the future of agriculture: Engage with the agrochemicals division strategic plan

(4108934)

Division of Agrochemicals

Presenter(s): Leah Riter

Monitoring semi-immobile and mobile weathering products in agricultural soils to quantify initial carbon capture of an enhanced rock weathering project deployed in Nebraska

(4101672)

Division of Agrochemicals

Presenter(s): Kalley Collins

Mosquito perception to amino acid inclusions for attract-and-kill baits

(4108377)

Division of Agrochemicals

Presenter(s): Xixian Ng

Optimizing procyanidin extraction from coffee pulp: A comparative study of microwave-assisted, ultrasound-assisted, and hybrid extraction methods

(4094630)

Division of Agrochemicals

Presenter(s): Micheal Bola Bamikale

Predicting the shelf life of avocados using deep learning and portable Raman spectrometer

(4103263)

Division of Agrochemicals

Presenter(s): In-Hwan Lee

Removal of pyrethroid insecticides from runoff water by activated carbon adsorption

(4096051)

Division of Agrochemicals

Presenter(s): Ernesto Hernandez

Residual characteristics and half-life of dimethomorph in Korean mint

(4105575)

Division of Agrochemicals

Presenter(s): Oh Eun Been

Residual characteristics of cyantraniliprole and cyclaniliprole in daylily

(4105565)

Division of Agrochemicals

Presenter(s): Dong Ju Kim

Residual characteristics of flubendiamide in different parts of Welsh onion

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Division of Agrochemicals

Presenter(s): Oh Eun Been

Seguieria langsdorffi: A new frontier in antiviral defense for zucchini squash production

(4105842)

Division of Agrochemicals

Presenter(s): Elielson Rodrigo Silveira

Smart alginate-based hydrogels: An approach for optimized nutrient distribution to plant-associated microbiomes

(4093857)

Division of Agrochemicals

Presenter(s): David Umborjah Mualen

Smart polymeric materials for the detection of pesticides

(4110437)

Division of Agrochemicals

Presenter(s): Ira Moore

Soil lixiviation and slow release pattern of starch-nanosilver encapsulated dichlorvos insecticide formulation

(4106730)

Division of Agrochemicals

Presenter(s): Nnemeka Edith Ihegwuagu

Two-pronged approach to manage the virus complex present in Sweet potato virus disease (SPVD)

(4099117)

Division of Agrochemicals

Presenter(s): Flinn Ohara

Validation of QuEChERS multi-residue analytical method for 198 pesticides in eel (*Anguilla japonica*) using LC-MS/MS

(4105580)

Division of Agrochemicals

Presenter(s): Oh Eun Been

Division of Analytical Chemistry (ANYL)

3D-printed microfluidics for CD69, CD64, and CD25 antigen detection in clinical sepsis samples

(4084190)

Division of Analytical Chemistry

Presenter(s): Kitiara Griffin

Application of laser-induced acoustic desorption (LIAD) for molecular rotational resonance (MRR) spectroscopy

(4103322)

Division of Analytical Chemistry

Presenter(s): Jaskiran Kaur

Characterizing perfluoroalkyl substance isomers with multi-pass cyclic ion mobility mass spectrometry combined with collision cross section and retention time modeling

(4107691)

Division of Analytical Chemistry

Presenter(s): Jonathan Antle

Combining proteomics and metabolomics to assess protein digestibility using LC-MS platforms

(4102644)

Division of Analytical Chemistry

Presenter(s): Shawn Ehlers Cheang

Cuticular hydrocarbon (CHC) profiles of blowflies to improve postmortem interval (PMI) estimation

(4089025)

Division of Analytical Chemistry

Presenter(s): William H Shirley

Detection of pancreatic cancer using mitochondrial and nuclear DNA from tumor-derived extracellular vesicles

(4082936)

Division of Analytical Chemistry

Presenter(s): Alfred Akinlalu

Developing quantitative standards for single-cell proteomics

(4105259)

Division of Analytical Chemistry

Presenter(s): Abigail Robinson

Dielectrophoretic study of small unilamellar vesicles

(4113315)

Division of Analytical Chemistry

Presenter(s): Teji Korma

Electrochemical early intervention through microstructure-based models for rapid bacterial sepsis detection

(4107488)

Division of Analytical Chemistry
Presenter(s): Manleen Kaur**Engineering advanced graphene oxide films for multifunctional applications: From environmental sensing to precision medical diagnostics**

(4100101)

Division of Analytical Chemistry

Presenter(s): Yi-Hsin Liu | Pei-Shan Chen | Qi-Xun Tang | Yi-Chun Yeh

Impact of doping heterogeneity in MoSe₂ on photoelectrochemical solar energy conversion efficiency using scanning electrochemical cell microscopy

(4103343)

Division of Analytical Chemistry

Presenter(s): Ava Rose Chard

Investigating biophysical variance of *Staphylococcus epidermidis* in biophysical measurement via insulator-based dielectrophoresis

(4103349)

Division of Analytical Chemistry

Presenter(s): Hoai Nguyen

Label-free investigation of DNA/DNA and DNA/drug interactions in a nanopore

(4099088)

Division of Analytical Chemistry

Presenter(s): Rana Jahani

LC-MS standard curves: Shedding light on precision in nicotine metabolism analysis

(4105239)

Division of Analytical Chemistry

Presenter(s): Carissa Hunter

Molecular insights into the binding of linear Polyethyleneimines and single-stranded DNA using Raman Spectroscopy: A quantitative approach

(4104197)

Division of Analytical Chemistry

Presenter(s): Rusul Mustafa

Probe-assisted detection of Fe³⁺ ions in a multi-functionalized nanopore

(4099102)

Division of Analytical Chemistry

Presenter(s): Rana Jahani

Probing conformational kinetics of catalase with and without magnetic field by single-entity collision electrochemistry

(4097336)

Division of Analytical Chemistry

Presenter(s): Qingdan Ding

Taste to track: Vanillin sensing in saliva with laser-induced graphene electrodes

(4110356)

Division of Analytical Chemistry

Presenter(s): Daniel Hernan Vargas Ramos

Division of Biological Chemistry (BIOL)

Affect of lipids on the morphology of amyloid disease proteins

(4103553)

Division of Biological Chemistry

Presenter(s): Davis Pickett

Applying the protein mimetic 2-dimensional fragment-assisted structure-based technique (2D-FAST) to discover a potential therapeutic for Alzheimer's disease

(4107847)

Division of Biological Chemistry

Presenter(s): Nicholas Stillman

Azobenzene-incorporated polymersomes for control of

targeted drug delivery to triple negative breast cancer

(4101241)

Division of Biological Chemistry

Presenter(s): Abulquasem Rayat Hossain

Bioconjugation of gammacarboxyglutamic acid residues with carboxylic acid-targeting molecular probes

(4109985)

Division of Biological Chemistry

Presenter(s): Sooriyage Salika Dulanjali

Bioorthogonal fluorogenic cyclopropanones for biomolecule labeling

(4106641)

Division of Biological Chemistry

Presenter(s): Halley Lin-Jones

Bugs as drugs (listeria monocytogenes as vehicles for cancer therapeutics)

(4099000)

Division of Biological Chemistry

Presenter(s): Jianen Lyu

Building of highly organized synthetic lipid structures

(4093416)

Division of Biological Chemistry

Presenter(s): Federica A. Alessandra Souto Trinei

Determination of lactic acid in beer with screen-printed electrodes

(4096480)

Division of Biological Chemistry

Presenter(s): Daniel Antuna-Jimenez

Development of an interdisciplinary laboratory experiment for teaching molecular computation, Boolean logic gates, hybridization probes and cancer RNA markers

(4104181)

Division of Biological Chemistry

Presenter(s): Quynh Vo

Development of novel PET imaging probes targeting cancer-specific sugar uptake mechanisms

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Division of Biological Chemistry

Presenter(s): Kamand Sedaghatnia

Dissecting the impact of ribosome heterogeneity on cell-type-specific dendritic architecture in Drosophila melanogaster

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Division of Biological Chemistry

Presenter(s): Marvin Thomas Center

Engineering PET hydrolases using evolution-informed design

and high-throughput production and testing

(4104055)

Division of Biological Chemistry

Presenter(s): Brenna Norton-Baker

Enhancing Isonitrile-reactivity and Bio-Orthogonality of Tetrazines through combining bulky and electron-withdrawing substituents

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Division of Biological Chemistry

Presenter(s): Suprakash Biswas

Enzymes for polyhydroxybutyrate (PHB) plastic degradation

(4104302)

Division of Biological Chemistry

Presenter(s): Samantha Ortiz

Exploring the environmental impacts on membrane protein structure and activity: Solubilization of ghrelin O-acyltransferase reveals unexpected protein-detergent compatibility

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Division of Biological Chemistry

Presenter(s): Andrea M. Sprague-Getsy

Glycosyltransferases are versatile tools for chemoenzymatic synthesis and glyco-engineering cell surfaces

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Division of Biological Chemistry

Presenter(s): Joshua Kofsky

Harnessing cell-free protein synthesis to synthesize and repurpose viral fusion machinery

(4109567)

Division of Biological Chemistry

Presenter(s): Ekaterina Selivanovitch

Histidine kinase NahK regulates bacterial communication and toxin production in *Pseudomonas aeruginosa*

(4071423)

Division of Biological Chemistry

Presenter(s): Natalie Alfano

in-silico pipeline for the rational directed evolution of light-sensitive transcription factor EL222

(4082639)

Division of Biological Chemistry

Presenter(s): Ashley Slaviero

Investigating the effects of diverse membranes on the structure and activity of diacylglycerol O-acyltransferase 2 (DGAT2)

(4084360)

Division of Biological Chemistry

Presenter(s): Rideeta Raquib

Investigation of the kinetic mechanism for the serotonin N-acetyltransferase pro-inhibitor bromoacetyltryptamine

(4105352)

Division of Biological Chemistry

Presenter(s): Nicole Wandrey

Isolation of Citral from Lemongrass and its anti-bacterial properties

(4109536)

Division of Biological Chemistry

Presenter(s): Yasmine Toudjani | Abraham Guerra

Liposomes as a platform for effective presentation of antigens to naïve B cells toward induction of antigen-specific humoral immunity

(4107722)

Division of Biological Chemistry

Presenter(s): Sydney Bone

New chemical tools to study protein-carbohydrate interactions

(4101120)

Division of Biological Chemistry

Presenter(s): Matthew Russolillo

Norovirus trends and seasonality in Baltimore wastewater: Year-long insight

(4094529)

Division of Biological Chemistry

Presenter(s): Rakshya Baral

Novel covalent-reversible chemistry for lysosome-targeting chimeras

(4106184)

Division of Biological Chemistry

Presenter(s): Dany Pechalrieu

Probing species-specific sperm-egg interactions: Unraveling glycan-mediated acrosome response through proteomics and crosslinking analysis

(4105604)

Division of Biological Chemistry

Presenter(s): Monireh Davoudi

Quantification of short chain fatty acids in physiological samples with ion chromatography

(4108861)

Division of Biological Chemistry

Presenter(s): Andrew D Chapp

Rapid, colorimetric sensor for the diagnosis of sexually transmitted illnesses: Chlamydia, gonorrhea, and syphilis

(4108352)
Division of Biological Chemistry
Presenter(s): Elijah Barstis

RNA degradation kinetics of molecular markers in synthetic and raw wastewater

(4094209)
Division of Biological Chemistry
Presenter(s): Brandi Williams

Selecting peptides that specifically bind selenium nanoparticles of defined sizes and allotropes

(4109691)
Division of Biological Chemistry
Presenter(s): Gavin A. McEwen

Single residue bioorthogonal labeling of serotonin receptors

(4107870)
Division of Biological Chemistry
Presenter(s): Pantea Montazeri

Streamlined identification of protein targets using natural product-derived degraders

(4102512)
Division of Biological Chemistry
Presenter(s): Brittney Racioppo

Structure-activity relationship studies for the rational design of lysosome targeting chimeras

(4109753)
Division of Biological Chemistry
Presenter(s): Chloe Wood Rollock

Sucrose interactions with plant cells and tissue: Insights into cryoprotective mechanisms

(4103310)
Division of Biological Chemistry
Presenter(s): Alberto Ochoa Castillo

Synthesis of novel boronium iodide salts for potential use as antimicrobials

(4086018)
Division of Biological Chemistry
Presenter(s): Gabriel Allen Merchant

Therapeutic applications of a MUC4 glycopeptide targeting monoclonal antibody in pancreatic cancer

(4101293)
Division of Biological Chemistry
Presenter(s): Achyut Dahal

Ubiquitin K27M mutation demonstrates the limitations of static protein models and the need for dynamic insight
(4110373)

Division of Biological Chemistry
Presenter(s): Colin Gardiner

Unified catalytic mechanism of base excision repair of damaged purine and pyrimidine DNA nucleotides

(4096626)
Division of Biological Chemistry
Presenter(s): Leonardo Serafim

π - π stacking mechanism of the YEATS domain

(4117602)
Division of Biological Chemistry
Presenter(s): Karthik Selvam

Division of Carbohydrate Chemistry (CARB)

Biophysical analysis for sialic acid recognition at different pH using Biolayer Interferometry

(4096666)
Division of Carbohydrate Chemistry
Presenter(s): Sawsan Mahmoud

Chemo-enzymatic oxidation of alditols by alditol-2-dehydrogenase: stereospecificity and enzyme promiscuity

(4107923)
Division of Carbohydrate Chemistry
Presenter(s): Prithwiraj De

Conserved role for Spike S2 domain stem N-glycans in human beta-coronavirus

(4106899)
Division of Carbohydrate Chemistry
Presenter(s): Qi Yang | Sriram Neelamegham

Desymmetrization of α,α -trehalose derivatives provides CLR agonists with remarkable activity as vaccine adjuvants

(4086502)
Division of Carbohydrate Chemistry
Presenter(s): Kendal Troy Ryter

Development of monosaccharide chemical reporters to probe lipoglycan synthesis and transport in mycobacteria

(4105288)
Division of Carbohydrate Chemistry
Presenter(s): Caleb Nketia Mensah

Disaccharide GlcNAc-MurNAc as a predominant peptidoglycan derivative in the host gut exhibits immunoregulatory effects via the TLR4 signaling pathway

(4104679)

Division of Carbohydrate Chemistry

Presenter(s): Chenyu Li

Engineering of sialyltransferase into glycan binding protein using a novel mammalian cell surface display platform

(4077722)

Division of Carbohydrate Chemistry

Presenter(s): Ryoma Hombu

Fragmentation effects of varying glycan composition using tandem mass spectrometry

(4103659)

Division of Carbohydrate Chemistry

Presenter(s): Joy Malaba

Glycoprofiling of fungal cell wall proteins Phr1/2 and Als7 from *Candida parapsilosis*

(4106515)

Division of Carbohydrate Chemistry

Presenter(s): Christopher W Reid

Glycosylation of SARS-CoV-2 variants and its possible implication for driving the immune evasion

(4086371)

Division of Carbohydrate Chemistry

Presenter(s): Parastoo Azadi

Incorporation of bacterial rare L-sugars into diverse glycoconjugates

(4098159)

Division of Carbohydrate Chemistry

Presenter(s): Tania Lupoli

Optimization of immune targeting in *Mycobacterium smegmatis* via cell surface glycan engineering

(4080683)

Division of Carbohydrate Chemistry

Presenter(s): Phoenix Knipe

Organocatalytic stereoselective glycosylations

(4106462)

Division of Carbohydrate Chemistry

Presenter(s): Abram Axelrod

Placental O-GlcNAcylation in gestational diabetes

(4106817)

Division of Carbohydrate Chemistry

Presenter(s): Stephanie Olivier-Van Stichelen

Role of sialidase for coronavirus infection

(4081785)

Division of Carbohydrate Chemistry

Presenter(s): Xue-Long Sun

Synthesis and immunological study of pentasaccharide unit of *Pseudomonas aeruginosa* exopolysaccharide Psl-CRM197 conjugate

(4109558)

Division of Carbohydrate Chemistry

Presenter(s): Uzoamaka Clara Bokolo

The HCoV-HKU1 N-terminal domain binds a wide range of 9-O-acetylated sialic acids presented on different glycan cores

(4089534)

Division of Carbohydrate Chemistry

Presenter(s): Robert de Vries

Transformation of glycals to vinyl iodides and 2-deoxy-2-iodo-nucleosides by using molecular iodine and their applications

(4077635)

Division of Carbohydrate Chemistry

Presenter(s): Norein Sakander

Using a chiral dummy ligand to control the side-chain conformation and glycosylation selectivity

(4102740)

Division of Carbohydrate Chemistry

Presenter(s): Nicolas Osorio

Using live cell proximity labelling to profile the exopolysaccharide interactome of live *Staphylococcus epidermidis* biofilms

(4101035)

Division of Carbohydrate Chemistry

Presenter(s): Myles B Poulin

Division of Catalysis Science and Technology (CATL)**Ab-initio modelling of the shape of Fe and Fe-Cr nanoparticles at finite temperatures**

(4102457)

Division of Catalysis Science and Technology

Presenter(s): Aditya Lele

Ammonia synthesis through enhanced nitrate electroreduction on bimetallic gold-iron catalysts

(4099149)

Division of Catalysis Science and Technology

Presenter(s): Rachel Nixon

Balancing elementary steps enables coke-free dry reforming of methane

(4100237)

Division of Catalysis Science and Technology

Presenter(s): Jiaqi Yu

Bismuth single-atom catalysts for tailored CO₂ reduction selectivity

(4092949)

Division of Catalysis Science and Technology

Presenter(s): Saswati Santra

Catalytic approach to ethylene detection

(4109235)

Division of Catalysis Science and Technology

Presenter(s): Autumn Giger

Chemprop v2: Advancing deep learning for chemical property prediction

(4095013)

Division of Catalysis Science and Technology

Presenter(s): Shih-Cheng Li

CO₂ electroreduction to long-chain hydrocarbons on cobalt catalysts

(4107538)

Division of Catalysis Science and Technology

Presenter(s): Phil Preikschas

Concerted polymer production from methane at ambient temperature and pressure by catalytic coupling of zeolite and alcohol oxidase

(4105970)

Division of Catalysis Science and Technology

Presenter(s): Jimin Kim

Designing multi-functional MoS₂/rGO piezocatalysts based on bacteria-catalyst topological interactions and electron pump effects for efficient water disinfection

(4104845)

Division of Catalysis Science and Technology

Presenter(s): Huinan Zhao

Designing the microenvironment in metal/ligand catalysts for enhanced CO₂ electrochemical reduction

(4106121)

Division of Catalysis Science and Technology

Presenter(s): Asmita Jana

Dynamic complex metal oxide catalysts for the oxygen evolution reaction in acidic electrolytes

(4101039)

Division of Catalysis Science and Technology

Presenter(s): Harrison Lippie

Effect of Co on the growth, thermal stability, and chemical**state of NiCo bimetallic particles supported on CeO₂(111) for dry reforming of methane**

(4109251)

Division of Catalysis Science and Technology

Presenter(s): Tasnim Ara

Electric field-assisted low-temperature direct co-activation of CH₄ and CO₂ on metal oxide-supported catalysts to C₁-C₂ oxygenates

(4107502)

Division of Catalysis Science and Technology

Presenter(s): Nomer Arriola

Electrocatalytic reduction of CO₂ on the dual-atoms anchored nitrogen co-doped defective graphene catalyst: theoretical approach

(4105136)

Division of Catalysis Science and Technology

Presenter(s): Kamalakannan Shanmugasundram

Electrochemical synthesis of sulfonamides employing hypervalent iodine as electrocatalyst

(4104583)

Division of Catalysis Science and Technology

Presenter(s): Camilo Camilo Munoz

Engineering Fe single-atom catalysts on porous graphitic carbon nitride: Synthesis and analysis

(4094797)

Division of Catalysis Science and Technology

Presenter(s): Jyoti Pandey

Exploring next-generation photocatalysts for sustainable wastewater treatment: A study on fibrous silica-titania and Ti₃AlC₂ catalysts

(4107452)

Division of Catalysis Science and Technology

Presenter(s): samia arain

Exploring rhodium properties for enhanced hydroformylation catalysts

(4100551)

Division of Catalysis Science and Technology

Presenter(s): daewon Oh

Exploring the catalytic potential of MgO nanostructures on Cu₂O/Cu(111) for CO₂ and CH₄ conversion

(4071421)

Division of Catalysis Science and Technology

Presenter(s): Arephin Islam

Exploring the impact of classical SMSI on electrocatalysis

(4109807)

Division of Catalysis Science and Technology

Presenter(s): Akshat Singh

Facile synthesis of nanostructured Ni/NiO/N-doped graphene electrocatalysts for enhanced oxygen evolution reaction
(4108522)

Division of Catalysis Science and Technology
Presenter(s): Roshni Madampadi

General, homogeneous organic reductants for the Nickel catalyzed cross-electrophile coupling of aryl bromides with alkyl bromides or N-hydroxy phthalimide esters
(4102751)

Division of Catalysis Science and Technology
Presenter(s): Kasturi Ganguli

Growth, structure, and chemical state of Ni and Co particles on reducible CeO₂(111) thin films
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Division of Catalysis Science and Technology
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Harnessing pyroelectric energy in planar catalysts for dual-pathway CO₂ reduction and hydrogen evolution reactions
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Division of Catalysis Science and Technology
Presenter(s): Maryam Mokhtarifar | T. Alan Hatton

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Division of Catalysis Science and Technology
Presenter(s): Stephen P. Vicchio

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Presenter(s): Abdo Hezam Abdullah Mohsen

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Division of Catalysis Science and Technology
Presenter(s): Abdelaziz Gouda

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Presenter(s): Liam Bailey

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Presenter(s): Noah W. Terkildsen

Liquefaction of corn stover pellets before pretreatment assisted by enzyme biocatalysis
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Division of Catalysis Science and Technology
Presenter(s): Diana Milena Ramirez Gutierrez

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Division of Catalysis Science and Technology
Presenter(s): Austin Nerhus

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Presenter(s): Renuka Hyderkhan

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Division of Catalysis Science and Technology
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Division of Catalysis Science and Technology

Presenter(s): Adarsh Kumar

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Presenter(s): Yiteng Zheng

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Presenter(s): Faiq Saeed

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Presenter(s): Matthew S Johnson

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Presenter(s): Simran Saund

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Division of Catalysis Science and Technology

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Presenter(s): Dong Xia

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Division of Catalysis Science and Technology

Presenter(s): Quinn Carvalho

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Presenter(s): Dieter Plessers

Switchable binding modes of hydroxypyridine containing NHC cobalt complexes: Synthesis, structural transformation and catalytic application towards CO₂ cycloaddition reactions

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Division of Catalysis Science and Technology

Presenter(s): Rhitwika Chowdhury

Synthesis of hierarchical 2D Fe₂TiO₅ nanosheets for efficient and stable visible light CO₂ conversion to solar fuels

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Presenter(s): Alexander Hill

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Division of Catalysis Science and Technology

Presenter(s): Nicolas Stephen Dwarica

Tuning electron density in amide-linked COFs: Unlocking high-performance metal-free electrocatalysts for water splitting

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Division of Catalysis Science and Technology

Presenter(s): Lissette Garcia Enriquez

Understanding the origins of stability in sinter-resistant supported platinum-based catalysts

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Division of Catalysis Science and Technology

Presenter(s): Melissa Cendejas

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Division of Catalysis Science and Technology

Presenter(s): Bidyut Kumar Kundu

ZnO supported bimetallic Ru-Ni catalyst for the liquid-phase hydrogenolysis of C₄ to C₆ carboxylic acids to primary alcohols

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Presenter(s): Errol Descalsota Saluta

Division of Cellulose and Renewable Materials (CELL)

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Division of Cellulose and Renewable Materials

Presenter(s): Seyyed Alireza Hashemi

6-Carboxycellulose acetate butyrate (CCAB): Modified celluronic acid for drug delivery

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Division of Cellulose and Renewable Materials

Presenter(s): Joyann Audrene Marks

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Division of Cellulose and Renewable Materials

Presenter(s): Bilkis Adedoyin

Bio-sourced adhesive with fire protection

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Presenter(s): Dallin L. Smith

Developing a chemical platform based on cottonseed oil to develop functional finishes for cellulosic materials

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Division of Cellulose and Renewable Materials

Presenter(s): Taylor Alyssa Kanipe

Development of a controlled release system for 5-fluorouracil using bacterial nanocellulose and its chemical derivatives for potential colon cancer treatment

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Division of Cellulose and Renewable Materials

Presenter(s): Angie Stefanny Stefanny Guarin Villarreal

Preparation, processing, and characterization of biobased carboxylic cellulose nanocrystals (CNC-COOHs)/ polylactic acid (PLA) nanocomposites

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Division of Cellulose and Renewable Materials

Presenter(s): Aanesa Watson

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Division of Cellulose and Renewable Materials

Presenter(s): Zhenqin Wang

Synthesizing zinc complex of 8-hydroxyquinoline derivative for overcoming multidrug-resistance Staphylococcus aureus: An innovative strategy to boost treatment effectiveness

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Division of Cellulose and Renewable Materials

Presenter(s): Khalil Mudarmah

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Presenter(s): Mayson Whipple

Authoring a TopHat e-book from existing videos: An explanation and results from two years of flipping an organic chemistry course

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Division of Chemical Education

Presenter(s): Michael A Christiansen

BASIL: A modular biochemistry CURE that can be implemented in a variety of formats

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Division of Chemical Education

Presenter(s): Stephen A Mills

Building a sense of belonging and inclusion among pre-college students in an advanced chemistry project

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Division of Chemical Education

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Changing soil into bricks: An introduction to exploitable microbial metabolism

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Division of Chemical Education

Presenter(s): Laurie Caslake

Chemistry around the house: a non-formal education program about cocoa and chocolate in Tabasco, Mexico
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Division of Chemical Education

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Crystal violet quantum calculations for general chemistry students: Easing the load by combining interactive webpages with WebMO and Gaussian

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Division of Chemical Education

Presenter(s): John William Keller

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Division of Chemical Education

Presenter(s): Jennifer Wilcox

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Division of Chemical Education

Presenter(s): William Fahy

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Division of Chemical Education

Presenter(s): Navid Ahmed Sadman

Effect of mentoring and leadership workshop on STEM student organizations

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Presenter(s): Nick O Flynn

Engaging chemistry undergraduates in conversations about diversity, equity, and inclusion: Development of a discussion assignment based on the documentary picture a scientist

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Division of Chemical Education

Presenter(s): Anne Yu

Enhancing molecular geometry visualization in chemistry education through virtual reality drawing tools

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Division of Chemical Education

Presenter(s): Yu Zhang

Evaluating ChatGPT as a homework resource for students in upper-division chemistry courses

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Division of Chemical Education

Presenter(s): Neal Abrams

Evaluation of analytical parameters in a glucometer: An analytical chemistry undergraduate laboratory

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Division of Chemical Education

Presenter(s): Jose Angel Rodriguez Corrales

Greener solid phase peptide synthesis: Modified methods for distributed drug discovery in the organic chemistry laboratory

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Division of Chemical Education

Presenter(s): Amy Dounay

Guaiazulene functionalization as a colorful introduction to column chromatography

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Division of Chemical Education

Presenter(s): John Patrick Lutz

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Division of Chemical Education

Presenter(s): Krystal Dawn Grieger

Improving student performance in organic chemistry using a guided-inquiry approach

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Division of Chemical Education

Presenter(s): Liam Browne

Influence of spatial aptitude and other factors on student success in organic stereochemistry

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Division of Chemical Education

Presenter(s): Ekaterina N Kadnikova

Integrating research projects and modules based on the application of nanoparticles in Analytical Chemistry Laboratory

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Division of Chemical Education

Presenter(s): Uriel Rivera Gonzalez

Integration of sustainability, online contribution, and

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Division of Chemical Education

Presenter(s): Linda Hargrove | Julio Enrique Teran

Learning insights from analyzing student engagement with online general chemistry courseware

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Presenter(s): Mark Blaser

Level 6 laboratory scientist apprenticeship: a case study of flipped learning pedagogies for part time university students studying BSc Chemistry degrees

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Division of Chemical Education

Presenter(s): Thomas Andrew Swift

Outreach in the Huron Valley local section

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Division of Chemical Education

Presenter(s): Lawrence H Kolopajlo

Project fresh: Understanding retention of 1st-year students in STEM at an urban public Hispanic serving institution

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Division of Chemical Education

Presenter(s): Gabriela M Smeureanu

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Division of Chemical Education

Presenter(s): Morgan Janice Clark | Micke Reynders

Supplemental instruction improves retention rates and study skills in freshman and sophomore chemistry courses

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Division of Chemical Education

Presenter(s): Faith M Yarberr

TICC is partnering with citizen scientist group, River Watch, to effect change in our local stream ecology

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Division of Chemical Education

Presenter(s): Haley Brown | Dominique Garcia | James Woodburn

Towards a computational chemistry CURE: A guided-inquiry investigation of the geometry of fluoromethyl radicals using ORCA

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Division of Chemical Education

Presenter(s): Isaac Spackman

Unlocking success: Metacognitive strategies in large-enrollment organic chemistry courses

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Division of Chemical Education

Presenter(s): Jelena Samonina

Using HPLC to quantify dyes in an undergraduate analytical chemistry lab

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Division of Chemical Education

Presenter(s): Alycia M Palmer

Division of Chemical Health and Safety (CHAS)**Analytical methodology for EU target list residual pesticides in cannabis**

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Division of Chemical Health and Safety

Presenter(s): Rebecca Cornelius | Andy Stinson

Ultrasonic or microwave modified continuous flow chemistry for the synthesis of tetrahydrocannabinol: Observing effects of various solvents and acids

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Division of Chemical Health and Safety

Presenter(s): Westley Cruces

Division of Chemical Information (CINF)**Adsorption energy customization of porphyrin by reverse design based on machine learning**

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Division of Chemical Information

Presenter(s): Min Hu

Advancements in hand-drawn chemical structure recognition through an enhanced Decimer architecture

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Division of Chemical Information

Presenter(s): Kohulan Rajan

Development and application of numerical multi-component features to describe and predict properties of complex

materials using machine learning

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Division of Chemical Information

Presenter(s): Rahil Ashtari

Febuilder: A comprehensive webserver to streamline FEP simulation setup in drug discovery

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Division of Chemical Information

Presenter(s): Xufan Gao

InChI for inorganic chemists: Organometallics and molecular inorganics

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Division of Chemical Information

Presenter(s): Jonathan M Goodman

InChI: what is it and what will it be?

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Division of Chemical Information

Presenter(s): Jonathan M Goodman

Machine learning model to predict dielectric constant of polymers

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Division of Chemical Information

Presenter(s): Estefania Ascencio

Machine learning modeling of a large set of homopolymers to predict glass transition temperatures

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Division of Chemical Information

Presenter(s): Gerardo M M Casanola-Martin

Map of chemistry: What ideas are funding?

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Division of Chemical Information

Presenter(s): Wen Yue Bian

Mitigating molecular aggregation in drug discovery with predictive insights from Explainable AI

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Division of Chemical Information

Presenter(s): Kaitlin Isfeld

Purge factors from solubility modelling

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Division of Chemical Information

Presenter(s): Daniel O'Connor

RDCanon: A python package for canonicalizing the order of tokens in SMARTS queries

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Division of Chemical Information

Presenter(s): Babak Amir Mahjour

STOUT V2: Improved translation between smiles and IUPAC nomenclature using transformer models

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Division of Chemical Information

Presenter(s): Kohulan Rajan

Substrate prediction for RiPP biosynthetic enzymes via masked language modeling and transfer learning

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Division of Chemical Information

Presenter(s): Joseph D Clark

Using Explainable Artificial Intelligence to explore the relationship between structure and activity

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Division of Chemical Information

Presenter(s): Hunter Sturm

Division of Chemical Toxicology (TOXI)

'Pinky-trigger' residues in the Y-family Dpo4 DNA polymerase restrict downstream synthesis past 8-oxoguanine lesions

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Division of Chemical Toxicology

Presenter(s): Michael A Trakselis

3,N4-etheno-5-methylcytosine blocks TET1-3 oxidation but is repaired by ALKBH2, 3 and FTO

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Division of Chemical Toxicology

Presenter(s): Jian Ma

Characterization of pixantrone regioisomeric conjugates arising from AP sites in DNA by NMR spectroscopy

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Division of Chemical Toxicology

Presenter(s): Yizhi Fu

Cleavage of double and single-stranded DNA at abasic sites by the selective serotonin reuptake inhibitors, fluoxetine (Prozac)

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Division of Chemical Toxicology

Presenter(s): Pivithuru S Liyanarachchi

Conjugated silver nanoparticle optical biosensing probes for rapid detection of nano-encapsulation in water-based fluids

for red tide, brevetoxin

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Division of Chemical Toxicology

Presenter(s): Misty Kapke

Contrasting effect of 5-formyl-2'-deoxyuridine as part of a tandem lesion in Escherichia coli: A 5' Fapy•dG increases its mutagenicity more than 50-fold while a 5' 8-oxo-2'-**deoxyguanosine increases G-to-T mutations up to 30-fold**

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Division of Chemical Toxicology

Presenter(s): Srijana Dasgupta

Diverse biological responses elicited by air-liquid interface dynamic exposure to toluene

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Division of Chemical Toxicology

Presenter(s): Huaiyu Deng

Evaluation of the human exposome for a new approach to evaluate disease risk: Parallel targeted and untargeted methods to measure peptide adducts of human hemoglobin

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Division of Chemical Toxicology

Presenter(s): Erik John Moran

Generation of an interstrand cross-link by reaction of a cytosine residue with the products arising from spermine-mediated cleavage of an abasic in duplex DNA

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Division of Chemical Toxicology

Presenter(s): Saosan Binth Md Amin

Inhibition of AP Endonuclease-1 by O-Benzylhydroxylamine & its analogs through the formation of a covalent adduct with abasic sites in DNA

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Division of Chemical Toxicology

Presenter(s): Pivithuru S Liyanarachchi

Interaction of PFAS with nuclear receptors at the molecular level

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Division of Chemical Toxicology

Presenter(s): Deepak James

Mutagenicity of a model DNA-peptide cross-link in human cells

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Division of Chemical Toxicology

Presenter(s): Priscilla Yawson

N6-methyldeoxyadenosine is dynamically regulated in aging and alzheimer's disease

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Division of Chemical Toxicology

Presenter(s): Abdur Rahim

Novel mitochondrial-targeting abasic (AP) sites reactive probe (mTAP) enables the manipulation of DNA repair and turnover

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Division of Chemical Toxicology

Presenter(s): Anal Jana

Peptide sequence affects nucleotide insertion on DNA containing 5-formylcytosine-mediated DNA-peptide cross-link

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Division of Chemical Toxicology

Presenter(s): Qi Zhang

Perfluorooctanoic acid inhibits pre-androgen receptor regulator aldo-keto reductase 1C2

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Division of Chemical Toxicology

Presenter(s): Andrea Andress

Physiological and psychological effects of massage cupping

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Division of Chemical Toxicology

Presenter(s): Adam Nicks

Reduce cytotoxicity induced by fine particulate matter (PM2.5) via transporting mitochondria to human lung cancer cells exposure to PM2.5

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Division of Chemical Toxicology

Presenter(s): Uyen Thi Nhat Nguyen Thi Nhat

Understanding the fundamental chemical reactions underlying the generation of interstrand cross-links by abasic sites in duplex DNA

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Division of Chemical Toxicology

Presenter(s): Garam Shim

Variation of harmful constituents in flavored hookah tobacco

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Division of Chemical Toxicology

Presenter(s): Itorobong Etebom Uwatt

Division of Colloid and Surface Chemistry (COLL)

Advancing spinal cord injury repair: A particle-embedded hydrogel for sustained antifibrotic release

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Division of Colloid and Surface Chemistry

Presenter(s): Xiang Li

AI-guided fluidics for autonomous precision synthesis of colloidal nanocrystals

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Division of Colloid and Surface Chemistry

Presenter(s): Yugang Zhang

Alginate-rich coacervates for specific drug delivery to macrophages

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Division of Colloid and Surface Chemistry

Presenter(s): Hanieh Safari

Annealing monte carlo simulation predicts actuation of sequence-encoded magnetic microrobots

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Division of Colloid and Surface Chemistry

Presenter(s): Collin Kemper

Atomistic study on the hydration and fouling resistance behaviors of hybrid amphiphilic and zwitterionic polymer surfaces

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Division of Colloid and Surface Chemistry

Presenter(s): Xiaoxue Qin

Biofilm-inspired underwater adhesives

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Division of Colloid and Surface Chemistry

Presenter(s): Xin Huang

Cellulose-based zwitterionic bottlebrush polymers for DNA delivery into plant roots

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Division of Colloid and Surface Chemistry

Presenter(s): Zachary Cartwright

Coarse grained computational chemistry of cyclodextrin based emulsions

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Division of Colloid and Surface Chemistry

Presenter(s): Shyam Vyas

Colloidal thin film phases, phase transitions, structure, and

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Division of Colloid and Surface Chemistry

Presenter(s): Arjun G Yodh

Comparative pore structure and dynamics for bacterial microcompartment shell protein assemblies in sheets or shells

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Division of Colloid and Surface Chemistry

Presenter(s): Saad Raza

Computational study on double nitrogen doping along armchair and zigzag directions on graphene

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Division of Colloid and Surface Chemistry

Presenter(s): Tandabany Dinadayalane

Controlling the durability and optical properties of triplet-triplet annihilation upconversion nanocapsules

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Division of Colloid and Surface Chemistry

Presenter(s): Tracy Schloemer

Design-driven motion of microrobots powered by acoustic streaming flows

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Division of Colloid and Surface Chemistry

Presenter(s): Ritu Raj

Development of functionalizable film by using substrate-independent surface coating method

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Division of Colloid and Surface Chemistry

Presenter(s): Suho Park

Dissipative particle dynamics modeling of phospholipid monolayers at air-water interfaces: Temperature-dependent two-dimensional phase behavior and elastic properties

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Division of Colloid and Surface Chemistry

Presenter(s): Kolattukudy P Santo

Electrochemical control of strong-coupling in CdSe exciton-polaritons

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Division of Colloid and Surface Chemistry

Presenter(s): Jennica Kelm

Electrokinetic transport dynamics of nanoparticles in 3D confined ordered porous media

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Division of Colloid and Surface Chemistry

Presenter(s): Anni Shi

Elucidating anomalous structural and dynamic evolution of confined hydrocarbon and water mixtures on freezing and melting behavior in nanoconfined environments

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Division of Colloid and Surface Chemistry

Presenter(s): Yang Jia

Engineering liquid-liquid phase separation to control microstructure and micromechanics in biomaterials

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Division of Colloid and Surface Chemistry

Presenter(s): Linqing Li

Enhanced contact flexibility from nanoparticles in capillary suspensions

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Division of Colloid and Surface Chemistry

Presenter(s): Erin Koos

Enhanced lithium-ion diffusion by lignin nanoparticles-dispersed electrolytes to suppress the lithium dendrite

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Division of Colloid and Surface Chemistry

Presenter(s): Neda Arabzadeh Nosratabad

Environmentally responsive liquid crystal emulsions stabilized by amphiphilic gold nanoparticles

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Division of Colloid and Surface Chemistry

Presenter(s): Oscar H. Piñeres-Quiñones

Exploring hypoxia modulation via DNA-driven spheroid architectures

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Division of Colloid and Surface Chemistry

Presenter(s): Sven Saemundsson

Fluorous phase oxygen optical nanosensor for overcoming metabolite interference in microbial systems

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Division of Colloid and Surface Chemistry

Presenter(s): John Branning

Force fields with potential: Simulating reactions at working electrodes with constant potential machine learned force fields

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Division of Colloid and Surface Chemistry

Presenter(s): Amro Dodin

Green algae-based biohybrid microrobots towards in vivo biomedical applications

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Division of Colloid and Surface Chemistry

Division of Colloid and Surface Chemistry (COLL)

Presenter(s): Zhengxing Li

Harnessing inorganic nanostructures to amplify natural light-driven mechanisms

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Division of Colloid and Surface Chemistry

Presenter(s): Elena A. Rozhkova

Homopolymer PPSU for nanotherapy

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Division of Colloid and Surface Chemistry

Presenter(s): Baofu Qiao

Hydroxyapatite nanowire-based piezoelectric film for ultrasonic electroporation-induced drug delivery

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Division of Colloid and Surface Chemistry

Presenter(s): Nikhil R. Jana

Improving magnetorheological fluid performance through fundamental analysis

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Division of Colloid and Surface Chemistry

Presenter(s): Emmanuel Johnson

In situ optical microscopy of electroless metal deposition reactions on polymer interfaces towards discrete functional particle synthesis

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Division of Colloid and Surface Chemistry

Presenter(s): Grecia Pierina Pierina Alvarado Munoz

Infrared spectro-microscopy of solid-liquid interfaces

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Division of Colloid and Surface Chemistry

Presenter(s): Xiao Zhao

Interaction of blood and bacteria with slippery hydrophilic surfaces

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Division of Colloid and Surface Chemistry

Presenter(s): Young Jae Kim

Interfacial tension of grafted block copolymers at immiscible homopolymer interfaces

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Division of Colloid and Surface Chemistry

Presenter(s): Ashutosh Nehete

Intuitive atomic-ions-in-diatomic-molecules model for the electronic structure of MX molecules

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Division of Colloid and Surface Chemistry

Presenter(s): Robert Warren Field

Investigating and simulating the large-amplitude oscillatory shear responses of concentrated nanoemulsions using physics-informed neural networks

(4106667)

Division of Colloid and Surface Chemistry

Presenter(s): Babak Valipourgoodarzi

Liposomal hydrogel for wound hydrogen peroxide sensing

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Division of Colloid and Surface Chemistry

Presenter(s): Simon Matoori

Macrophage transport with helical microrobots: Cell attachment, locomotion, and delivery through mucus

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Division of Colloid and Surface Chemistry

Presenter(s): Ritu Raj

Mechanism of optical cooling in CsPbBr₃ Perovskite nanocrystals

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Division of Colloid and Surface Chemistry

Presenter(s): Kylie Lytle

Modeling electric double layer structure and surface reactions

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Division of Colloid and Surface Chemistry

Presenter(s): Jianzhong Wu

Modulating the kinetics of photoinduced charge separation and charge recombination of CsPbBr₃ perovskite nanocrystals through ligand-shell Engineering

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Division of Colloid and Surface Chemistry

Presenter(s): Chen Wang

Morphology modification in PS/PMMA polymer blend thin films induced by CdS QDs

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Division of Colloid and Surface Chemistry

Presenter(s): Hemant Kumar

Nanoimaging of water bending and carboxylate stretching modes in colloidal nanocrystal films

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Division of Colloid and Surface Chemistry

Presenter(s): Wassie Takele

Nanoparticles enabled isolation and enrichment of endogenous AMPK protein complexes for top-down mass-spectrometry analysis

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Division of Colloid and Surface Chemistry

Presenter(s): Mandi Wang

New dimensions in colloidal nanomaterials characterization: Rapid measurements of individual nanoparticle masses directly from solution using charge detection mass spectrometry

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Division of Colloid and Surface Chemistry

Presenter(s): Conner C. Harper

Non-invasive wearable enzymatic sweat glucose utilizing aluminum-doped zinc oxide film on flexible polyimide film

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Division of Colloid and Surface Chemistry

Presenter(s): Wan-Jhen Wu

Optical response mechanisms of DNA-carbon nanotube optical sensors to small molecule analytes investigated with molecular dynamics simulations and machine learning

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Division of Colloid and Surface Chemistry

Presenter(s): Sayantani Chakraborty

Optimization and surface modification of lignocellulosic based materials: food serving applications

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Division of Colloid and Surface Chemistry

Presenter(s): Mamoona Raheem

Polymer-grafted nanoparticles as next generation carriers for anti-drug vaccines

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Division of Colloid and Surface Chemistry

Presenter(s): Mayson Whipple

Possible structures of molecular corks for advancements in hydrogen storage

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Division of Colloid and Surface Chemistry

Presenter(s): Lillian Crane

Rolling helical microbots for cellular patterning

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Division of Colloid and Surface Chemistry

Presenter(s): Fatma Ceren Kirmizitas

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Presenter(s): Chavdar Nikolov Kamenarov

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Division of Inorganic Chemistry

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Division of Inorganic Chemistry

Presenter(s): Sully Barnett | Aimee Morris

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Division of Inorganic Chemistry
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(4086104)

Division of Inorganic Chemistry
Presenter(s): Yagya Narayan Regmi**Mechanistic investigation of dirhodium single molecule photocatalysts**

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Division of Inorganic Chemistry
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Presenter(s): Shivaiah Vaddypally

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Presenter(s): Oksana Love

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Presenter(s): Marina Zapesochny

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Division of Inorganic Chemistry

Presenter(s): Agustin Valles

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Presenter(s): Ainsley Snyder | Mikaela Spafford

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Presenter(s): Aine Coogan

Will a supramolecular square assemble with copper(II) cations and amine ligands?

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Presenter(s): Douglas A Vander Griend

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Presenter(s): David C Thompson

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Presenter(s): Safiya Nisar

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Presenter(s): Elisabeth Starosta

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Presenter(s): Wen Shuai

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Division of Medicinal Chemistry

Presenter(s): Precious Ajifa Nnamdi

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Presenter(s): Andrea Renee Selkow

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Presenter(s): Heather Culbertson

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Presenter(s): Carmen E Chamberlain

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Division of Nuclear Chemistry and Technology

Presenter(s): Cecilia J Paranjothi

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Presenter(s): Raissa Chunko

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Presenter(s): Gabriel A. Flores

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Presenter(s): Amita Bedar

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Presenter(s): Elizabeth Decoteau

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Presenter(s): Deborah A Penchoff

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Division of Nuclear Chemistry and Technology

Presenter(s): Staci Herman

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Division of Nuclear Chemistry and Technology

Presenter(s): Madeleine Forbes

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Division of Nuclear Chemistry and Technology

Presenter(s): John Ducilon

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Presenter(s): Anilu Sofia Diaz

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Division of Nuclear Chemistry and Technology

Presenter(s): Ingrid Lehman-Andino

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Presenter(s): Rachel Wood

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Presenter(s): Grace Mauk

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Presenter(s): Kerrick Connor Rees

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Presenter(s): Diarmuid O'Hanlon

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Division of Organic Chemistry

Presenter(s): Brandon Bishop

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Presenter(s): Lucas Forshee

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Division of Organic Chemistry

Presenter(s): Natalie Reece

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Division of Organic Chemistry

Presenter(s): Ruihan Wang

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Presenter(s): Leah E Nkulu

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Presenter(s): Syeda Sadia Khatoon

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Presenter(s): Iakov Medvedkov

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Presenter(s): Jacob Hood

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Presenter(s): Zemirah Beth Kamanya

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Presenter(s): Emma E. Drake

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Division of Organic Chemistry

Presenter(s): Jiin Lee

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Presenter(s): Omotolani Elizabeth Owoseeni

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Presenter(s): Sa-Adatu Abdullahi

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Presenter(s): Rakshya Ojha

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Presenter(s): Rashini Ama Shakya Kohomban Gamage

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Division of Organic Chemistry

Presenter(s): Femil Joseph Shajan

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Presenter(s): Yu-Chia Chang

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Division of Organic Chemistry

Presenter(s): Gaurav P. Kudalkar | Jared L. Hass | Chris Albert

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Presenter(s): Colin Campbell

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Presenter(s): Saeedeh Torabi Kohlbouni

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Presenter(s): Mukund P Sibi

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Presenter(s): Dale O Kiesewetter

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Presenter(s): Leon Youran Wang

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Presenter(s): Christina Scalzo

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Presenter(s): Jessica Sampson

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Presenter(s): Emily Mendel

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Presenter(s): Robert V O'Brien

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Division of Organic Chemistry

Presenter(s): Phillip Lee Gray

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Presenter(s): Daisy R. S. Pooler

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Division of Organic Chemistry

Presenter(s): Sajila Riman Tanha

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Division of Organic Chemistry

Presenter(s): Adelaide Mashweu

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Division of Organic Chemistry

Presenter(s): Elizabeth Denton

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Division of Organic Chemistry

Presenter(s): Olutayo Nathanael Farinde

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Presenter(s): Yu-Hsiang Chang

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Division of Organic Chemistry

Presenter(s): Charlotte Smith

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Division of Organic Chemistry

Presenter(s): Dili Raj Subedi

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Division of Organic Chemistry

Presenter(s): Erik Trebilcock

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Division of Organic Chemistry

Presenter(s): Cristina Ascenzi Pettenuzzo

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Division of Organic Chemistry

Presenter(s): Aliakbar Mohammadlou

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Division of Organic Chemistry

Presenter(s): Katherine Verboom

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Division of Organic Chemistry

Presenter(s): Holden Doherty

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Division of Organic Chemistry

Presenter(s): Yuki Kamata

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Division of Organic Chemistry

Presenter(s): Haoqian Miao

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Division of Organic Chemistry

Presenter(s): Ryan Tran

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Division of Organic Chemistry

Presenter(s): Jayson Wang | Jack Li

Stabilization of Ketene intermediate in aqueous medium using a nanohost

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Division of Organic Chemistry

Presenter(s): Abhishek Kumar

Stereospecific SuFEx reactions of sulfonimidoyl fluorides with amines and Grignard reagents

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Division of Organic Chemistry

Presenter(s): Oliver Symes

Structure assignment and total synthesis of natural product madurastatin C1

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Division of Organic Chemistry

Presenter(s): Xinyi Zhang

Structure validation and revision of complex natural products using DU8ML: Machine learning-augmented DFT NMR computations

(4102467)

Division of Organic Chemistry

Presenter(s): Ivan Novitskiy

Structure, dynamics, and nanoscale assemblies of N-modified proline-based tripeptides

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Division of Organic Chemistry

Presenter(s): Hema Kuntrapakam

Structure-reactivity relationship study for tryptophan-targeting dehydrative alkylation in Hexafluoroisopropanol

(4104209)

Division of Organic Chemistry

Presenter(s): Emily Joyner

Studies of the cyclic triimidazole-boric acid complex

(4100326)

Division of Organic Chemistry

Presenter(s): David M. Schubert

Synthesis and optical spectroscopy of oligoethyleneoxy-pyrylium tosylates exhibiting solid-state fluorescence

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Division of Organic Chemistry

Presenter(s): David King

Synthesis of 2,N3-disubstituted 4(3H)-quinazolinones via N3-alkylation and C2-amination

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Division of Organic Chemistry

Presenter(s): Kelly Kim

Synthesis of Ariamazole, a promising benzimidazole for therapeutics

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Division of Organic Chemistry

Presenter(s): Ariana Martinez-Alamo

Synthesis of difluorinated C-glycosyl derivatives for innovative drug discovery

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Division of Organic Chemistry

Presenter(s): Amena Begum

Synthesis of furopyridone heterocycles via oxidative [3+2] cycloaddition reactions

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Division of Organic Chemistry

Presenter(s): Christian Casiano

Synthetic approaches towards accessing 3-Acyltetramic acids

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Division of Organic Chemistry

Presenter(s): Ebbin Joseph

Templated-modulated micellization and fluorescence "turn-off" molecular sensing properties of naphthalimide-viologen amphiphiles

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Division of Organic Chemistry

Presenter(s): Victoire Delattre

Total synthesis of Clausanisumine

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Division of Organic Chemistry

Presenter(s): Princeton Luong

Towards an enzyme mimic through DNA-Palladium conjugation

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Division of Organic Chemistry

Presenter(s): Chuhang Luo

Transitional metal-catalyzed synthesis of oxazoles from benzyl ketones

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Division of Organic Chemistry

Presenter(s): Yangyang Lyu

Using computational chemistry to unravel the mechanism of a blue light-induced three-component reaction involving Aryldiazoacetates, proton donors, and cyclic ethers

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Division of Organic Chemistry

Presenter(s): Kevin Singh

Zwitterionic-1, 3-diaza Claisen rearrangements via generation of carbodiimides through the Co(II)-catalyzed reaction of sulfonyl azides with isocyanides tethered to tertiary allylic amines

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Division of Organic Chemistry

Presenter(s): Yixiao Li

Division of Physical Chemistry (PHYS)**Band-to-band tunneling effect in a robust type-III van der Waals bilayer heterostructure based on monolayer gallium oxide and silicon-carbide**

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Presenter(s): Smit Chaudhary | Ram K. Gupta

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Presenter(s): Sauravkumar Patel | Ram K. Gupta

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Presenter(s): Gerardo M M Casanola-Martin

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Presenter(s): Adelyne Towne | Aidan Gustafson

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Presenter(s): Samuel J. Armistead

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Presenter(s): Manaswee Barua

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Presenter(s): R Bharath Venkatesh

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Division of Polymeric Materials Science and Engineering
Presenter(s): Shuaijun Li

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Presenter(s): Nicoletta Inverardi

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Presenter(s): Hao Yu

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Presenter(s): Larry Luster

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Presenter(s): Habtamu Gebeyehu Menge | Yong Tae Park

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Presenter(s): Ruoxin Li

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Presenter(s): Chandan Bodhak

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Presenter(s): Marek W Urban

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Presenter(s): Alexandria E Evans

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Division of Polymeric Materials Science and Engineering

Presenter(s): Victoria Batiz

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Presenter(s): Nika Bondar

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Division of Polymeric Materials Science and Engineering

Presenter(s): Junyi Zhao

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Presenter(s): Erik Christoffersen

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Division of Polymeric Materials Science and Engineering

Presenter(s): Mohd Avais

Tailoring the electrochemical properties of hybrid n-type silicon interfaces with NDI nanostructures

(4110663)

Division of Polymeric Materials Science and Engineering

Presenter(s): Ifigeneia Tsironi

Template-coating pair derived macroscale carbon foams for seawater desalination

(4107159)

Division of Polymeric Materials Science and Engineering

Presenter(s): Manuela Pinheiro

Thermo-mechanical structure - property relationships of PLA-glass/iron nanocomposites

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Division of Polymeric Materials Science and Engineering

Presenter(s): William Angelo Pisani

Topological approach to the design and synthesis of crystalline 3D covalent organic frameworks

(4108068)

Division of Polymeric Materials Science and Engineering

Presenter(s): Bryce Buchanan

Topologically tuning the mechanical properties and its effect on 3D print applications of tri-block co-polymers derived from epoxides and CO₂

(4106803)

Division of Polymeric Materials Science and Engineering

Presenter(s): Naushad Ahmed

Triplet-triplet Annihilation upconversion nanocapsules for volumetric 3D Printing

(4097640)

Division of Polymeric Materials Science and Engineering

Presenter(s): Tracy Schloemer

Tumor-associated macrophage modulation via host-functionalized nanoparticles

(4102612)

Division of Polymeric Materials Science and Engineering

Presenter(s): Biplab Sarkar

Tuning hydrothermal liquefaction to produce valuable aromatic chemicals from multilayer films

(4091333)

Division of Polymeric Materials Science and Engineering

Presenter(s): Daniel Lachos Perez

Upcycling PET waste into circularly recyclable vitrimer materials

(4104230)

Division of Polymeric Materials Science and Engineering

Presenter(s): Mary Katherine Danielson

Utilizing amphiphilic macromolecules in nanotechnology to visualize neuroinflammation in microglia linked to Alzheimer's disease

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Division of Polymeric Materials Science and Engineering

Presenter(s): Umme Tamima

Division of the History of Chemistry (HIST)

APC and His Contributions to Chemistry and India's Self-determination Movements

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Division of the History of Chemistry

Presenter(s): Sambuddha Banerjee

Celebration of the chemical elements with poetry and music

(4106794)

Division of the History of Chemistry

Presenter(s): Christine Hahn

Chemical mastery to AI precision: Advancing forensic fingerprint analysis

(4105370)

Division of the History of Chemistry

Presenter(s): Seetham Naidu Mudila | Sajid Bashir

Drug analysis in the early years of the Pure Food and Drug Act of 1906

(4110348)

Division of the History of Chemistry

Presenter(s): Alice Haddy

Electronic wavefunction: The history of the basis set

(4110210)

Division of the History of Chemistry

Presenter(s): Han Xie

History of Raman spectroscopy: Analysis and forgery detection in art and archaeology

(4109646)

Division of the History of Chemistry

Presenter(s): Nelly N Mateeva

Mapping rediscovery of the elements: Places of the periodic table

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Division of the History of Chemistry

Presenter(s): Carmen J Giunta

Poisons and the history of forensic chemistry

(4098968)

Division of the History of Chemistry

Presenter(s): Suzanne Bell

This history of biomass: From energy source in ancient times to renewable materials in modern world

(4110167)

Division of the History of Chemistry

Presenter(s): Hao Sun

Uncovering the hidden heroes

(4103749)

Division of the History of Chemistry

Presenter(s): Faith M Yarberr

Multidisciplinary Program Planning Group (MPPG)

Evaluation of fundamental structure-activity relationships of tryptamines for pharmacological relevance

(4108715)

Multidisciplinary Program Planning Group

Presenter(s): Veronica Shuger

Evidence for multiphase chemistry occurring in real indoor environments: Measurements and modeling

(4096855)

Multidisciplinary Program Planning Group

Presenter(s): William Fahy

Health benefits vs. harms from different indoor air cleaner technologies

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Multidisciplinary Program Planning Group

Presenter(s): Jose L Jimenez

Impacts of Germicidal Ultraviolet lamps on indoor VOC chemistry and aerosol production

(4088852)

Multidisciplinary Program Planning Group

Presenter(s): Madison Rutherford

Implications of the use of PFAS: Exposure in and emissions from residential environments

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Multidisciplinary Program Planning Group

Presenter(s): Barbara J Turpin

Investigating chemical and physical drivers of ozone reactivity in the indoor environment

(4109633)

Multidisciplinary Program Planning Group

Presenter(s): Allison G. Salamone

Longer-wavelength upper-room germicidal UV causes an order-of-magnitude less secondary air pollution per unit disinfection than shorter-wavelength whole-room applications

(4105600)

Multidisciplinary Program Planning Group

Presenter(s): Zhe Peng

Patterns and predictors of volatile organic compounds measured in rural and underserved workplaces

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Multidisciplinary Program Planning Group

Presenter(s): Ellison Carter

Psychedelic drugs: As taught in a course on “chemistry of drug addiction”

(4110641)

Multidisciplinary Program Planning Group

Presenter(s): Debbie Catharina Crans