#### ACS Spring 2024 Sci-Mix Presentations - March 18, 2024, 8-10 PM CT

#### Contents by Division

AGFD	2
ANYL	
BIOL	<u>C</u>
BIOT	15
CARB	22
CATL	25
CELL	30
CHAL	36
CHAS	36
CINF	36
COLL	38
COMP	48
ENFL	57
ENVR	64
FLUO	76
GEOC	76
HIST	78
I&EC	79
INOR	82
MEDI	86
NUCL	89
ORGN	91
PHYS	102
PMSE	111
POLY	124
PROF	132

#### **AGFD**

### All-natural healthy power aid drinks from specialty crops rich by antioxidants, essential oils, and terpenes

(3982129) DIVISION: AGFD

Presenter(s): Ludan Osman

Location: Hall C (Ernest N. Morial Convention Center)

#### Analysis of heavy metals in dark chocolate

(3995302) DIVISION: AGFD

Presenter(s): Victoria Pipinich | Raymond C Dudek Location: Hall C (Ernest N. Morial Convention Center)

#### Categorization of organic compounds in agricultural soils

(3991897)

**DIVISION: AGFD** 

Presenter(s): Noah Reilly

Location: Hall C (Ernest N. Morial Convention Center)

#### Characterization of purple star apple (Chrysophyllum cainito L.) as a promising functional food

(3995374)

**DIVISION: AGFD** 

Presenter(s): Gabriela Rubi Rubi Tapia-Alvarez Location: Hall C (Ernest N. Morial Convention Center)

### Comprehensive comparison of the dynamics of kombucha fermentation in a silicone bag and a glass jar

(3989108)

**DIVISION: AGFD** 

Presenter(s): Kortnie Chamberlain

Location: Hall C (Ernest N. Morial Convention Center)

# Comprehensive metabolomic profiling for elderberries (Sambucus spp.) in uncovering bioactive compounds

(3992544)

**DIVISION: AGFD** 

Presenter(s): Nadia Bostick

Location: Hall C (Ernest N. Morial Convention Center)

2 [AGFD]

#### Creating a glucometer-based device to observe the ripening of Aronia mitschurinii

(3992582) DIVISION: AGFD

Presenter(s): Ryan Buzzetto

Location: Hall C (Ernest N. Morial Convention Center)

# Determination of xanthophyll carotenoid content in vegetables recommended for macular degeneration prevention through high performance liquid chromatography and heat exposure

(3994158) DIVISION: AGFD

Presenter(s): Madison Tarrance

Location: Hall C (Ernest N. Morial Convention Center)

### Developing an Ochratoxin A nanoaptasensing screening system with a plasmonic platform

(3988380) DIVISION: AGFD

Presenter(s): Andrés Fabián
Location: Hall C (Ernest N. Morial Convention Center)

### Development of a high-performance thin layer chromatography (HPTLC) method for the qualification and quantification of soya saponin compounds

(3991521) DIVISION: AGFD

Presenter(s): Gé nesis Chavarria

Location: Hall C (Ernest N. Morial Convention Center)

# Dr. Pepper Vanillin Flavor Compound determination and analysis using SPME and Headspace Analysis

(3994207) DIVISION: AGFD

Presenter(s): Madison Tarrance

Location: Hall C (Ernest N. Morial Convention Center)

### Effects of betulin derivatives from birch and sycamore bark on Drosophila melanogaster

(3992824) DIVISION: AGFD

Presenter(s): Faith Davies

Location: Hall C (Ernest N. Morial Convention Center)

3 [AGFD]

# Effects of ethylene exposure on Hass avocados (Persea americana) during ripening in the presence of Cavendish bananas (Musa acuminata) over a five-day period

(3979232) DIVISION: AGFD

Presenter(s): Andrew Gao

Location: Hall C (Ernest N. Morial Convention Center)

#### Evaluating chemical catalysts' thermal and kinetic effects on starch gelatinization

(3995577) DIVISION: AGFD

Presenter(s): Saeed Dupree

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring flavors of edible ants: A path to sustainable gastronomy and consumer acceptance

(3986622) DIVISION: AGFD

Presenter(s): Selene Alvarado Martinez | Changqi Liu Location: Hall C (Ernest N. Morial Convention Center)

#### Genetically-encoded nanoparticles for siRNA-mediated crop genetic engineering

(3982005) DIVISION: AGFD

Presenter(s): Virginia H Pistilli

Location: Hall C (Ernest N. Morial Convention Center)

#### Increasing desirable aroma compounds in Pennsylvania wines by treating postharvest grapes with elemental sulfur

(3996051) DIVISION: AGFD

Presenter(s): Jacob John Messner

Location: Hall C (Ernest N. Morial Convention Center)

#### Investigating the impact of sugar source variation on kombucha fermentation

(3989148)

DIVISION: AGFD

Presenter(s): Ian Loscher

Location: Hall C (Ernest N. Morial Convention Center)

# Molecular cloning of bacterial exopolysaccharide forming enzymes in sugarcane processing and biological and agricultural impacts

(3993842)

4 [AGFD]

**DIVISION: AGFD** 

Presenter(s): Jack Fein | Evan Terrell

Location: Hall C (Ernest N. Morial Convention Center)

# Semi critical CO2-ethanol assisted extraction of photoinduced bioactive pigments from seaweed algae: Advances in renewable dyes production for food supplements and pharmacy applications

(3990136) DIVISION: AGFD

Presenter(s): Angelo Chatmon

Location: Hall C (Ernest N. Morial Convention Center)

#### Sustainable formulation solutions for dsRNA-based biopesticides for next-gen agricultural pest control

(3997111) DIVISION: AGFD

Presenter(s): Sargun Malik | Anil Kumar | Jacob Shoemake

Location: Hall C (Ernest N. Morial Convention Center)

#### Understanding the flavors and aromas in wine and beer

(3993895) DIVISION: AGFD

Presenter(s): Brian Bartholomew

Location: Hall C (Ernest N. Morial Convention Center)

#### Unraveling the health implications of modified sucralose

(3992218) DIVISION: AGFD

Presenter(s): Isabella Beasley

Location: Hall C (Ernest N. Morial Convention Center)

#### **ANYL**

### 3D-printed cone spray ionization: material optimization and automation ruggedization

(3997778) DIVISION: ANYL

Presenter(s): T.J. Pinedo

Location: Hall C (Ernest N. Morial Convention Center)

# Assessing variation of bioactive alkaloids in commercially available kratom products

(3992856)

**DIVISION: ANYL** 

Presenter(s): Anna J Shuey

Location: Hall C (Ernest N. Morial Convention Center)

# Comprehensive Two-Dimensional Gas Chromatography reveals the volatile compounds present in a biparental sweetpotato mapping population

(3991514) DIVISION: ANYL

Presenter(s): Modesta Abugu

Location: Hall C (Ernest N. Morial Convention Center)

#### Determination of anion gap (AG) using pulsed chronopotentiometry

(3997325) DIVISION: ANYL

Presenter(s): Olivia Neal

Location: Hall C (Ernest N. Morial Convention Center)

#### **Determination of Dipole Moments of Nanoparticles Utilizing Dielectrophoresis**

(4025139) DIVISION: ANYL

Presenter(s): A K M Fazlul Karim Rasel

Location: Hall C (Ernest N. Morial Convention Center)

# Determination of the binding capacity of anionic nutrients to Mars Regolith Simulants from Freundlich and Langmuir Adsorption Isotherms

(3995463) DIVISION: ANYL

Presenter(s): Sydney Panczak

Location: Hall C (Ernest N. Morial Convention Center)

#### Development of C-H hydrogen bond based anion sensors

(3992591) DIVISION: ANYL

Presenter(s): Rayhanus Salam

Location: Hall C (Ernest N. Morial Convention Center)

# Elucidating the transport mechanisms of Hnqo1-responsive fluorescent small molecular probes in human multicellular tumor spheroid mimics

(3990677) DIVISION: ANYL

Presenter(s): Shibalik Mukherjee

Location: Hall C (Ernest N. Morial Convention Center)

### **Evaluation of electrode geometries for portable trapped ion mobility spectrometry**

(3994130) DIVISION: ANYL

Presenter(s): Riley Patterson

Location: Hall C (Ernest N. Morial Convention Center)

### Fabrication of plasmonic nanopipettes for tip-enhanced Raman spectroscopy in scanning ion conductance microscopy technique

(3993899) DIVISION: ANYL

Presenter(s): Abu Montakim Tareq

Location: Hall C (Ernest N. Morial Convention Center)

# Fast-scan cyclic voltammetry with principal component regression analysis selectively resolves dopamine-methylenedioxypyrovalerone (bath salts) mixture in vitro

(3986176) DIVISION: ANYL

Presenter(s): Benjamin Sterling Succop

Location: Hall C (Ernest N. Morial Convention Center)

#### Handheld Van de Graff generators for surface analyte capture and sample ionization

(3990005) DIVISION: ANYL

Presenter(s): Paige Hunt

Location: Hall C (Ernest N. Morial Convention Center)

# Identification and quantification of sonicated sodium dodecyl sulfate products in single-walled carbon nanotube suspension by gas chromatography

(3990727) DIVISION: ANYL

Presenter(s): Kevin Charles Tvrdy

Location: Hall C (Ernest N. Morial Convention Center)

# Investigating secondary structure variation of tau aggregates in Alzheimer's disease with infrared spectroscopic imaging

(3995970) DIVISION: ANYL

Presenter(s): Brodie William James Frew

Location: Hall C (Ernest N. Morial Convention Center)

# Multifunctional PVA/cellulose hydrogels with long-term environmental adaptability and mechanical durability for strain sensors and triboelectric nanogenerators

(3995731) DIVISION: ANYL

Presenter(s): Wang Yaquan

Location: Hall C (Ernest N. Morial Convention Center)

#### Paper-based microfluidic devices from hydrophobic ionic liquids

(3997295) DIVISION: ANYL

Presenter(s): Charles Kuedukey | David Bwambok Location: Hall C (Ernest N. Morial Convention Center)

#### **Pulsed electrospray ionization kinetics**

(3996609) DIVISION: ANYL

Presenter(s): Landon Vyhmeister

Location: Hall C (Ernest N. Morial Convention Center)

#### Radiation-tolerant solid-contact electrodes for potentiometry in sterile environments

(3985936) DIVISION: ANYL

Presenter(s): Bingyuan Zhao

Location: Hall C (Ernest N. Morial Convention Center)

#### Recovery of urea with reduced graphene oxide-MoS2 composite membranes

(3992703) DIVISION: ANYL

Presenter(s): Kathryn Marsh

Location: Hall C (Ernest N. Morial Convention Center)

#### Stepped stand-alone Fourier transform ion mobility spectrometry

(3995905) DIVISION: ANYL

Presenter(s): Saned Gharari

Location: Hall C (Ernest N. Morial Convention Center)

# Using low-cost sample preparation and surface-enhanced Raman spectroscopy to identify bacteria

(3997234) DIVISION: ANYL

Presenter(s): Christopher Flores Kaled

Location: Hall C (Ernest N. Morial Convention Center)

### Visualization of cancer cells with precision: An Hnqo1 responsive near-infrared fluorescent probe

(3990675) DIVISION: ANYL

Presenter(s): Stephy Jomy

Location: Hall C (Ernest N. Morial Convention Center)

Waste to Use: Utilization of the waste zeolite from catalysis industry for membrane-supported micro solid phase extraction of pesticide residues in wastewater using Gas chromatography-mass spectrometry

(3989537)

**DIVISION: ANYL** 

Presenter(s): Shaima Ibrahim Alsabbahen

Location: Hall C (Ernest N. Morial Convention Center)

### What happened to the yellow Skittles? Bringing big data into the quantitative analysis lab

(3995262)

**DIVISION: ANYL** 

Presenter(s): Paul R Alderson

Location: Hall C (Ernest N. Morial Convention Center)

Zinc tetrapyrrole coordinated to imidazole functionalized Tetracyanobutadiene or cyclohexa-2,5-diene-1,4-diylidene-expanded-Tetracyanobutadiene conjugates: Dark vs. light-induced electron transfer

(3994323) DIVISION: ANYL

Presenter(s): Manan Guragain

Location: Hall C (Ernest N. Morial Convention Center)

#### BIOL

### Advancing disease detection in biological systems: Harnessing click chemistry for innovative fluorescent probes

(3993452) DIVISION: BIOL

Presenter(s): Eva-Maria Rudler

Location: Hall C (Ernest N. Morial Convention Center)

#### Assingment of the S-C stretching vibration in the Raman spectrum of S-adenosyll-methionine and its application as a sub-molecular sensor of interactions to the reactive methyl group when bound to an enzyamic active site

(3993871) DIVISION: BIOL

Presenter(s): Allison L Stelling

Location: Hall C (Ernest N. Morial Convention Center)

### Biophysical investigation in the nitric oxide sensing protein in Pseudomonas aeruginosa

(3995575) DIVISION: BIOL

Presenter(s): Lily Cam

Location: Hall C (Ernest N. Morial Convention Center)

# Chemical protein synthesis for investigating Alzheimer's disease: The effect of N-glycosylation on tau phase transitions

(3976878) DIVISION: BIOL

Presenter(s): Wyatt Powell

Location: Hall C (Ernest N. Morial Convention Center)

#### Chemoenzymatic synthesis of novel nucleotides for antibiotic discovery

(3977067) DIVISION: BIOL

Presenter(s): Su Ilayda Ozcan

Location: Virtual Session (Virtual Only)

# Co-aggregation as an exceptionally simple platform for preparing fluorogenic tetrazine probes with on-demand fluorogen selection

(3986473) DIVISION: BIOL

Presenter(s): Shinsuke Segawa

Location: Hall C (Ernest N. Morial Convention Center)

#### Computational-guided genome mining for new natural products

(3997272) DIVISION: BIOL

Presenter(s): Abner Danao Abad

Location: Hall C (Ernest N. Morial Convention Center)

# Cyclic peptides from a genetically-encoded phage-display library target the SARS-CoV-2 programmed ribosomal frameshifting RNA

(3980986) DIVISION: BIOL

Presenter(s): Andrew Hong

Location: Hall C (Ernest N. Morial Convention Center)

#### Design, synthesis, and biological evaluation of novel mitochondria-targeting exosomes

(3994526) DIVISION: BIOL

Presenter(s): Lanrong Bi

Location: Hall C (Ernest N. Morial Convention Center)

#### Designing membraneless organelles: Mimicking the carboxysome

(3979804) DIVISION: BIOL

Presenter(s): Abesh Banerjee

Location: Hall C (Ernest N. Morial Convention Center)

# Development of a chemotranscriptomic pipeline for RNA-targeted ligand discovery

(3994775) DIVISION: BIOL

Presenter(s): Jose A Reyes Franceschi

Location: Hall C (Ernest N. Morial Convention Center)

#### Discovery of small molecule-mediated protein degradation pathways

(3986837) DIVISION: BIOL

Presenter(s): Isabella Riha

Location: Hall C (Ernest N. Morial Convention Center)

# DNA Display a CRISPR-enabled display technology method for rapid in vitro nanobody development

(3980063) DIVISION: BIOL

Presenter(s): Enrico Calore

Location: Hall C (Ernest N. Morial Convention Center)

#### Effects of glutathione on the labile iron pool

(3997895) DIVISION: BIOL

Presenter(s): Cade Nordhagen

Location: Hall C (Ernest N. Morial Convention Center)

#### **Enabling site selective lysine modification on antibodies**

(3983347) DIVISION: BIOL

Presenter(s): Ioanna Aikaterini Aikaterini Thanasi Location: Hall C (Ernest N. Morial Convention Center)

### Evidence for acid-base catalysis and substrate-dependent metal ion activation by coronavirus Nsp15 endonuclease

(3987651) DIVISION: BIOL

Presenter(s): Nidhi Kalia

Location: Hall C (Ernest N. Morial Convention Center)

#### Examining the allosteric mechanism of NAMPT for targeted drug discovery

(3989316) DIVISION: BIOL

Presenter(s): Jenna Courey

Location: Hall C (Ernest N. Morial Convention Center)

#### Fluorescein-based fluorogenic chemical tools to shed light on ester drug metabolism in live cells

(3990611) DIVISION: BIOL

Presenter(s): Carolyn Karns

Location: Hall C (Ernest N. Morial Convention Center)

#### From Alzheimer's amyloid to the rippled beta-sheet

(3991291) DIVISION: BIOL

Presenter(s): Jevgenij Raskatov

Location: Hall C (Ernest N. Morial Convention Center)

#### High-throughput analysis of twister ribozymes

(3986717) DIVISION: BIOL

Presenter(s): Lauren McKinley

Location: Hall C (Ernest N. Morial Convention Center)

#### Illuminating variations in drug metabolism with fluorogenic chemical tools

(3979394) DIVISION: BIOL

Presenter(s): Michael W Beck

Location: Hall C (Ernest N. Morial Convention Center)

# Investigating the effects of molecular crowding on enzyme substrate-binding using isothermal titration calorimetry

(3986104) DIVISION: BIOL

Presenter(s): Sanchita Hati

Location: Hall C (Ernest N. Morial Convention Center)

# Paradoxical regulation of cellular redox homeostasis by hydropersulfides and hydropolysulfides via Cystathionine γ-lyase phosphorylation

(3997071) DIVISION: BIOL

Presenter(s): Cameron R. Cason

Location: Hall C (Ernest N. Morial Convention Center)

#### Rethinking oligonucleotides in a P(V) world

(3990129) DIVISION: BIOL

Presenter(s): Phil S Baran

Location: Virtual Session (Virtual Only)

# Role of the NosP associated histidine kinase NahK in nitric oxide-stress resistance in Pseudomonas aeruginosa

(3993044) DIVISION: BIOL

Presenter(s): Sweta Anantharaman

Location: Hall C (Ernest N. Morial Convention Center)

#### Sensitive fluorescent biosensor reveals differential subcellular regulation of PKC

(3984101) DIVISION: BIOL Presenter(s): Qi Su

Location: Hall C (Ernest N. Morial Convention Center)

#### Site-selective modification of antibodies using Pyridazinediones (PDs)

(3989985) DIVISION: BIOL

Presenter(s): Clíona McMahon

Location: Hall C (Ernest N. Morial Convention Center)

# Stable analogues of a reactive bacterial metabolite as tools for studying immunity

(3996783) DIVISION: BIOL

Presenter(s): Jeffrey Y. W. Mak

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis of hyper-oxidized NAD derivatives

(3997636) DIVISION: BIOL

Presenter(s): Juanita Monteiro-Pai

Location: Hall C (Ernest N. Morial Convention Center)

#### Toward cell-based protein tyrosine phosphatase activity assays

(3978120) DIVISION: BIOL

Presenter(s): Haoyu Sun

Location: Hall C (Ernest N. Morial Convention Center)

#### Transcriptomic analyses of multiple antibiotic adjuvants against MRSA

(3994428) DIVISION: BIOL

Presenter(s): Robin Stempel

Location: Hall C (Ernest N. Morial Convention Center)

# Using tyrosine reactive SuTEx ligands to induce Glutathione S-Transferase Pi (GSTP1-1) mediated protein-protein interactions

(3988976) DIVISION: BIOL

Presenter(s): David Leace

Location: Hall C (Ernest N. Morial Convention Center)

#### Utilizing native and mutant phycoerythrobilin-binding proteins as florescent zinc sensors

(3994807) DIVISION: BIOL

Presenter(s): Gary C Jensen

Location: Hall C (Ernest N. Morial Convention Center)

#### Writing the rulebook on RNA-small molecule interactions for drug discovery

(3990283) DIVISION: BIOL

Presenter(s): Tim Eric Harry Allen

Location: Hall C (Ernest N. Morial Convention Center)

#### **BIOT**

# Achieving charge variant profile of innovator molecule during the development of monoclonal antibody based biosimilars: use of media components

(3983884) DIVISION: BIOT

Presenter(s): Neelesh Gangwar

Location: Hall C (Ernest N. Morial Convention Center)

#### Advanced characterization of soluble and insoluble biological particles for mammalian cell culture clarification operations

(3994184) DIVISION: BIOT

Presenter(s): Noelle Olson

Location: Hall C (Ernest N. Morial Convention Center)

### Anion-exchange chromatography separation of AAV empty and full capsids using non-toxic choline-type salts

(3990250) DIVISION: BIOT

Presenter(s): Jukka Kervinen

Location: Hall C (Ernest N. Morial Convention Center)

#### Application of single-pass tangential flow filtration to streamline a conjugate vaccine process

(3988689) DIVISION: BIOT

Presenter(s): Henry Ludwicki

Location: Hall C (Ernest N. Morial Convention Center)

# Building an understanding of the cell culture process for host cell protein (HCP) expression and control through clone-to-clone comparison

(3995606) DIVISION: BIOT

Presenter(s): Ansuman Sahoo

Location: Hall C (Ernest N. Morial Convention Center)

#### Click display: A rapid and efficient in vitro protein engineering display method for directed evolution

(3979345) DIVISION: BIOT

Presenter(s): Michael Woolley

Location: Hall C (Ernest N. Morial Convention Center)

# Combination non-targeted and targeted nanoparticle drug delivery synergistically outperforms either component in treatment of metastatic ovarian cancer

(3983657) DIVISION: BIOT

Presenter(s): Emily Bromley

Location: Hall C (Ernest N. Morial Convention Center)

#### CRISPR Cas9 targeted genome-wide mutagenesis for the discovery of nonobvious acetate tolerance genes in Yarrowia lipolytica

(3987965) DIVISION: BIOT

Presenter(s): Nick R Robertson

Location: Hall C (Ernest N. Morial Convention Center)

#### Cys delivery impacts on mammalian cell culture

(3991413) DIVISION: BIOT

Presenter(s): Yang Wu

Location: Hall C (Ernest N. Morial Convention Center)

# De-risking biomanufacturing through host cell protein (HCP) removal using peptides as ligands

(3979384) DIVISION: BIOT

Presenter(s): Sobhana Sripada

Location: Hall C (Ernest N. Morial Convention Center)

### Design of amphiphilic polypeptoid - lipid nanoparticles as nanocarriers for therapeutic applications

(3994505) DIVISION: BIOT

Presenter(s): Pedram AziziHariri

Location: Hall C (Ernest N. Morial Convention Center)

#### Development of a process toolbox to modulate afucosylation of antibodies

(3979538) DIVISION: BIOT

Presenter(s): Jared Lynn Dopp

Location: Hall C (Ernest N. Morial Convention Center)

#### Development of lyophilized dosage forms to achieve stability of monoclonal IgM antibodies

(3993775) DIVISION: BIOT

Presenter(s): Christopher Mensch

Location: Hall C (Ernest N. Morial Convention Center)

### Development of robust and non-destructive benchtop qNMR methods for the quantification of excipients in biologics formulations

(3980566) DIVISION: BIOT

Presenter(s): Ciaran Christopher Lynch

Location: Hall C (Ernest N. Morial Convention Center)

#### Engineering custom, precise, ligand-dependent cellular control

(3996433) DIVISION: BIOT

Presenter(s): Samuel Swift

Location: Hall C (Ernest N. Morial Convention Center)

# Enhanced antibiotic delivery using Escherichia coli outer membrane vesicles as a novel delivery platform

(3986638) DIVISION: BIOT

Presenter(s): Meishan Wu

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring strategy for affinity based purification of bispecific antibodies to address homodimers separation challenge

(3995556) DIVISION: BIOT

Presenter(s): Catherine Teo

Location: Hall C (Ernest N. Morial Convention Center)

#### Flow distribution and scalability of depth filter capsules

(3975338) DIVISION: BIOT

Presenter(s): Nicholas Marchand

Location: Hall C (Ernest N. Morial Convention Center)

# Formation of enzyme-surfactant nanoconjugates for non-aqueous production of alkene biofuels from triglycerides

(3986345) DIVISION: BIOT

Presenter(s): Jake Nicholson

Location: Hall C (Ernest N. Morial Convention Center)

#### From Poster to Pipeline to Product: Innovating within an established company

(3993571) DIVISION: BIOT

Presenter(s): Joseph Basconi

Location: Hall C (Ernest N. Morial Convention Center)

### Gene Therapy Adeno-Associated viral (AAV) vectors isolation and enrichment through Peptide-based discovery

(3997098) DIVISION: BIOT

Presenter(s): Arianna Minzoni

Location: Hall C (Ernest N. Morial Convention Center)

#### High-throughput platform for optimizing mRNA production through in vitro transcription

(3996145) DIVISION: BIOT

Presenter(s): Daniel Yur

Location: Hall C (Ernest N. Morial Convention Center)

#### High-throughput viral inactivation screening using Retrovirus-like particles

(3996099) DIVISION: BIOT

Presenter(s): Daniel Cetnar

Location: Hall C (Ernest N. Morial Convention Center)

#### Identification and control of growth inhibitory metabolic products in Human Embryonic Kidney 293 cell fed-batch cultures

(3997651) DIVISION: BIOT

Presenter(s): Cameron Harrington

Location: Hall C (Ernest N. Morial Convention Center)

# Impact of light exposure on topoisomerase I inhibitor antibody-drug conjugate stability

(3983135) DIVISION: BIOT

Presenter(s): Nathan Sandler

Location: Hall C (Ernest N. Morial Convention Center)

# Implementation of membrane chromatography step using a novel ligand chemistry for clearance of associated host cell proteins

(3991801)

**DIVISION: BIOT** 

Presenter(s): Anindita Das

Location: Hall C (Ernest N. Morial Convention Center)

# Innovative mixed mode resin for efficient purification of complex antibody formats: Impurity removal and high purity bispecific antibody recovery

(3988292) DIVISION: BIOT

Presenter(s): Annika Holzgreve

Location: Hall C (Ernest N. Morial Convention Center)

#### In-silico purification developability assessment for monoclonal antibodies

(3990420) DIVISION: BIOT

Presenter(s): Minjeong Cha

Location: Hall C (Ernest N. Morial Convention Center)

# Intensified single-step, flowthrough polishing process: A closer look at aggregate and mock virus removal with Capto adhere

(3994811) DIVISION: BIOT

Presenter(s): Christina Caporale

Location: Hall C (Ernest N. Morial Convention Center)

### Investigating carbohydrate utilization in Anaerocellum bescii for sustainable biofuels production

(3991974) DIVISION: BIOT

Presenter(s): Hansen Tjo

Location: Hall C (Ernest N. Morial Convention Center)

### Machine learning-enhanced optimization of a multi-step ion exchange chromatography for ternary protein separation

(3979549) DIVISION: BIOT

Presenter(s): Chaoying Ding

Location: Hall C (Ernest N. Morial Convention Center)

#### Metabolite regulated CRISPR activation for dynamic transcriptional control

(3983133) DIVISION: BIOT

Presenter(s): Anthony M. Stohr

Location: Hall C (Ernest N. Morial Convention Center)

# Mitigation of particulate formation in downstream purification for an intensified monoclonal antibody process

(3976165) DIVISION: BIOT

Presenter(s): Zheyuan Luo

Location: Hall C (Ernest N. Morial Convention Center)

#### Optimized SEC-MALS analysis of AAV gene therapy vectors: Leveraging a 20angle MALS detector and compliant software for precise characterization of capsid particles

(3994650) DIVISION: BIOT

Presenter(s): Derek Lohmann

Location: Hall C (Ernest N. Morial Convention Center)

#### Plasmid DNA purification optimized with mechanistic modeling

(3993129) DIVISION: BIOT

Presenter(s): Patricia Roch

Location: Hall C (Ernest N. Morial Convention Center)

# Process development methodology to assess a new drug substance container: Freezing and thawing small scale model considerations and effect of CO2 ingress during shipping

(3977952) DIVISION: BIOT

Presenter(s): Yanhong Feng

Location: Hall C (Ernest N. Morial Convention Center)

# Protein engineering and structural insights into a hydrolase from Microbacterium hydrocarbonoxydans for its applications in anti-viral drug synthesis

(4001645) DIVISION: BIOT

Presenter(s): Shuaihua Gao

Location: Hall C (Ernest N. Morial Convention Center)

#### Pure dUTP-mediated LAMP assay coupled with CRISPR/Cas12a system for contamination-free and ultrasensitive DNA detection

(3990912) DIVISION: BIOT

Presenter(s): Yi Xie

Location: Hall C (Ernest N. Morial Convention Center)

### Purification of a monoclonal antibody using a novel high-capacity multimodal cation exchange nonwoven membrane

(3988261) DIVISION: BIOT

Presenter(s): Jinxin Fan

Location: Hall C (Ernest N. Morial Convention Center)

# Qualification of a high-throughput scale down model and its application for process characterization of UFDF operation

(3981783) DIVISION: BIOT

Presenter(s): Jakub Legocki

Location: Hall C (Ernest N. Morial Convention Center)

#### Refolding and Purification of unstable biotherapeutics: L-asparaginase as a case study

(3993113) DIVISION: BIOT

Presenter(s): Nitika Nitika

Location: Hall C (Ernest N. Morial Convention Center)

#### Simplified process development for single-pass TFF

(3994499) DIVISION: BIOT

Presenter(s): Christina Caporale

Location: Hall C (Ernest N. Morial Convention Center)

# Structural and mechanistic understanding of Glucagon-like peptide 1 agonists, Semaglutide and Liraglutide, in solution formulations

(3992749) DIVISION: BIOT

Presenter(s): Ekaterina M Stroeva

Location: Hall C (Ernest N. Morial Convention Center)

#### Tangential flow filtration device flow patterns enhance T-cell transduction for CAR T-cell manufacturing

(3982675) DIVISION: BIOT

Presenter(s): Eric Slaughter

Location: Hall C (Ernest N. Morial Convention Center)

#### Targeted delivery of antibiotics to treat infections associated with Gramnegative bacteria using a toxin-triggered liposomal system

(3983089) DIVISION: BIOT

Presenter(s): Ziang Li

Location: Hall C (Ernest N. Morial Convention Center)

#### Technical feasibility of changing cell line post phase 1 clinical manufacturing

(4005289) DIVISION: BIOT

Presenter(s): Amritha Menon

Location: Hall C (Ernest N. Morial Convention Center)

### Two-step protocol for the large scale purification of AAV based on cation exchange and capto core 400 chromatography

(3979115) DIVISION: BIOT

Presenter(s): Troy Rogerson

Location: Hall C (Ernest N. Morial Convention Center)

# Versatile, rapid, and trackable NIR light-triggered drug release from polymeric nanoparticles using a photo-cleavable prodrug platform approach

(3995010) DIVISION: BIOT

Presenter(s): Amy Moreno

Location: Hall C (Ernest N. Morial Convention Center)

#### **CARB**

# Assessing the performance of atomistic force fields in modeling glycogen in aqueous environments

(3997005) DIVISION: CARB

Presenter(s): Parisa Farzeen

Location: Hall C (Ernest N. Morial Convention Center)

#### Borrelia burgdorferi peptidoglycan contains novel stem peptide linkages

(3989775) DIVISION: CARB

Presenter(s): David Harris

Location: Hall C (Ernest N. Morial Convention Center)

22 [CARB]

### Carboxylic acid derivatization for improved O-glycopeptide identification by mass spectrometry

(4001036) DIVISION: CARB

Presenter(s): Deniz Ince

Location: Hall C (Ernest N. Morial Convention Center)

### Evaluation of design parameters for monosaccharide probes used in the metabolic labeling of bacterial glycans

(3992331) DIVISION: CARB

Presenter(s): Danielle H Dube

Location: Hall C (Ernest N. Morial Convention Center)

#### Fluorescent sugar analogs as probes for bacterial monosaccharide uptake

(3992312) DIVISION: CARB

Presenter(s): Danielle H Dube

Location: Hall C (Ernest N. Morial Convention Center)

### Helicobacter pylori glycan biosynthesis modulates host immune cell recognition and response

(3992325) DIVISION: CARB

Presenter(s): Danielle H Dube

Location: Hall C (Ernest N. Morial Convention Center)

### Inhibiting norovirus infections via modular hyperbranched polymers with terminal glycan moieties

(3994334) DIVISION: CARB

Presenter(s): Jonathan Mase

Location: Hall C (Ernest N. Morial Convention Center)

# O-Naphthyl glycosides act as metabolic inhibitors of Helicobacter pylori protein glycosylation

(3992515) DIVISION: CARB

Presenter(s): Danielle H Dube

Location: Hall C (Ernest N. Morial Convention Center)

#### Precision glycopolymers for tunable galectin-3 inhibition

(3996507)

23 [CARB]

**DIVISION: CARB** 

Presenter(s): Daniel Stone

Location: Hall C (Ernest N. Morial Convention Center)

# Probes for studying carbohydrate - carbohydrate interactions: Synthesis of glycitol-based glycoconjugates using the thiol-ene click reaction

(3988331) DIVISION: CARB

Presenter(s): Sebastian Rueda

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis and characterization of trehalose-biotin conjugates as tools for the detection of mycobacteria

(3991319) DIVISION: CARB

Presenter(s): Emily Maskill

Location: Hall C (Ernest N. Morial Convention Center)

# Synthesis of heparan sulfate mimetics incorporating iduronic acid for viral targeting

(4003486) DIVISION: CARB

Presenter(s): Susannah Armstrong

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis of matriglycan mimetics for targeting Lassa virus

(4003482) DIVISION: CARB

Presenter(s): Meaghan Cadieux | Italy Ramos Location: Hall C (Ernest N. Morial Convention Center)

### Synthetic development of carbohydrate phthalocyanine conjugates as new tools for addressing disease

(4003480) DIVISION: CARB

Presenter(s): Marcello Munoz | Lucy Clayton Location: Hall C (Ernest N. Morial Convention Center)

#### Systematic study of sialic acid-containing polymer properties for influenza inhibition

(3997506) DIVISION: CARB

24 [CARB]

Presenter(s): Rachel Bianculli

Location: Hall C (Ernest N. Morial Convention Center)

#### Thioglycosides act as metabolic inhibitors of bacterial glycan biosynthesis

(3992343) DIVISION: CARB

Presenter(s): Danielle H Dube

Location: Hall C (Ernest N. Morial Convention Center)

#### **CATL**

#### Biomass-derived catalytic architectures: Opportunities for mechanochemical extrusion

(3981691) DIVISION: CATL

Presenter(s): Daily Rodriguez Padron

Location: Hall C (Ernest N. Morial Convention Center)

#### Carbon corrosion and other degradation mechanisms for CO2 electrolyzers

(3990026) DIVISION: CATL

Presenter(s): Mathew Rasmussen

Location: Hall C (Ernest N. Morial Convention Center)

#### Catalysts tolerant to SO2 for electrified carbon capture and utilization

(3976676) DIVISION: CATL

Presenter(s): Pengfei Ou

Location: Hall C (Ernest N. Morial Convention Center)

#### Cobalt and iron based core-shell catalysts for Fischer-Tropsch synthesis in a tubular reactor

(3995459) DIVISION: CATL

Presenter(s): Meric Arslan

Location: Hall C (Ernest N. Morial Convention Center)

### Cobalt nanoparticles supported on Isonicotinamide functionalized silica for selective hydrogenations

(3982449) DIVISION: CATL

Presenter(s): Antonio Reina

Location: Hall C (Ernest N. Morial Convention Center)

### Conversion of Methane to methanol over Ceria-ZSM-5 supported copper oxide catalysts

(3979015) DIVISION: CATL

Presenter(s): Pranay Rajendra Chandewar

Location: Hall C (Ernest N. Morial Convention Center)

### Data driven discovery of active single atom site: From carbon supported catalyst to high entropy alloys

(3992006) DIVISION: CATL

Presenter(s): Bin Ouyang

Location: Hall C (Ernest N. Morial Convention Center)

# Data-driven modeling and design of single-atom alloy catalysts for CO2 hydrogenation

(3990008) DIVISION: CATL

Presenter(s): Raffaele Cheula

Location: Hall C (Ernest N. Morial Convention Center)

#### Dehydrogenative coupling of light alkanes to SAF-range hydrocarbons in a single reactor

(3989072) DIVISION: CATL

Presenter(s): Alexander Hill

Location: Hall C (Ernest N. Morial Convention Center)

### Design and development of novel 2D alloyed-Antimxenes for electrochemical applications

(3990171) DIVISION: CATL

Presenter(s): Venkata Surya Kumar Choutipalli Location: Hall C (Ernest N. Morial Convention Center)

# Electrode surface heating with organic films improves CO2 electroreduction kinetics on copper

(3989253) DIVISION: CATL

Presenter(s): Zachary Schiffer

Location: Hall C (Ernest N. Morial Convention Center)

#### Enhanced photocatalytic degradation of azo dyes using metal-doped TiO2

(3991349) DIVISION: CATL

Presenter(s): Sunith Madduri

Location: Hall C (Ernest N. Morial Convention Center)

### Enhancing ethylene activation through substituted polyoxometalates enables electrified synthesis of ethylene glycol

(3982136) DIVISION: CATL

Presenter(s): Jiaqi Yu

Location: Hall C (Ernest N. Morial Convention Center)

# Enhancing photoreduction of CO2 with ultra-low loading of Ag-Ni bimetallic centers anchored to hexagonal porous g-C3N4 nanostructure

(3992129) DIVISION: CATL

Presenter(s): Fahim A Qaraah

Location: Hall C (Ernest N. Morial Convention Center)

# Evaluation of propylene production from oxidative and non-oxidative dehydrogenation of propane using Mo-V mixed oxides

(3997250) DIVISION: CATL

Presenter(s): Leticia Fernanda Rasteiro

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring the computational aspects of propylene oligomerization catalysis using Fe2M type trimetallic MOF nodes

(3989156) DIVISION: CATL

Presenter(s): Rishu Khurana

Location: Hall C (Ernest N. Morial Convention Center)

# Facile liquid phase exfoliation of 2D BiOI for enhanced photoelectrocatalytic activity and durability

(3991764) DIVISION: CATL

Presenter(s): Mengjiao Wang

Location: Hall C (Ernest N. Morial Convention Center)

# Failure mechanism of gas diffusion electrode during electrochemical hydrogen peroxide production

(3979340) DIVISION: CATL

Presenter(s): Erzhuo Zhao

Location: Hall C (Ernest N. Morial Convention Center)

#### Halite-structured high entropy oxide (HEO) for chemical looping-dry reforming of methane (CL-DRM)

(3990986) DIVISION: CATL

Presenter(s): Yu Shao

Location: Hall C (Ernest N. Morial Convention Center)

# Heck migratory insertion catalyzed by a single Pt atom site: Quantum mechanical prediction of reaction mechanism

(3996766) DIVISION: CATL Presenter(s): Bo Li

Location: Hall C (Ernest N. Morial Convention Center)

# In-situ structures and reaction centers of layered Ni (oxy)hydroxide electrocatalysts with complex ion intercalation for oxygen evolution

(3992762) DIVISION: CATL

Presenter(s): ZhenHua Zeng

Location: Hall C (Ernest N. Morial Convention Center)

### Interrogating complex and dynamic interfaces during carbon-free H2 production from methane conversion over MgO-supported catalysts

(3997373) DIVISION: CATL

Presenter(s): Laura Alejandra Gomez

Location: Hall C (Ernest N. Morial Convention Center)

#### Investigating the role of water activity and gas composition in CO2/CO reduction

(3992583) DIVISION: CATL

Presenter(s): David Raciti

Location: Hall C (Ernest N. Morial Convention Center)

# Mechanism, kinetics, and role of OH radicals in ultrasound-mediated aqueous glyoxal oxidation

(3981288) DIVISION: CATL

Presenter(s): Ari Fischer

Location: Hall C (Ernest N. Morial Convention Center)

### Mechanocatalytic depolymerization of poly(ethylene terephthalate): Rigorous characterization of a single collision

(3988776) DIVISION: CATL

Presenter(s): Kinga Maria Golabek

Location: Hall C (Ernest N. Morial Convention Center)

#### Mechanochemical reduction of MoO3 and application in the water-splitting

(3980076) DIVISION: CATL

Presenter(s): Leticia Fernanda Rasteiro

Location: Hall C (Ernest N. Morial Convention Center)

# Microwave-assisted co-gasification of mixed plastic and corn stover to produce clean H2 using Fe oxide catalyst

(3986556) DIVISION: CATL

Presenter(s): Ben Eston Gibens

Location: Hall C (Ernest N. Morial Convention Center)

# Microwave-assisted syngas clean-up: catalytic reforming of gasifier Tar using low-cost iron catalyst

(3981109) DIVISION: CATL

Presenter(s): Xinwei Bai

Location: Hall C (Ernest N. Morial Convention Center)

#### Molecular potentiometry of dispersed heterogeneous catalysts

(3974991) DIVISION: CATL

Presenter(s): Neil Kanth Razdan

Location: Hall C (Ernest N. Morial Convention Center)

#### Periodic reactivity trends in methane activation on earth-abundant metal and alloy clusters

(3997763) DIVISION: CATL

Presenter(s): Yinan Xu

Location: Hall C (Ernest N. Morial Convention Center)

### Suppressing methanation in the water–gas shift reaction with NI-substituted CeO2 aerogels

(3981816) DIVISION: CATL

Presenter(s): Austin Eric Herzog

Location: Hall C (Ernest N. Morial Convention Center)

### Understanding the mechanism of Birch reduction in photoredox CO2 utilization with organic catalysts

(3983440) DIVISION: CATL

Presenter(s): Pallavi Sarkar

Location: Hall C (Ernest N. Morial Convention Center)

#### Unraveling fundamental activity: Stability relationships in rutile oxides

(3985591) DIVISION: CATL

Presenter(s): Joseph Gauthier

Location: Hall C (Ernest N. Morial Convention Center)

### Water-promoted Mars-van-Krevelen reaction dominates low-temperature CO oxidation over Au-Fe2O3, but not over Au-TiO2

(3989784) DIVISION: CATL

Presenter(s): Alexander Holm

Location: Hall C (Ernest N. Morial Convention Center)

#### **CELL**

### 3D printing of bone-like scaffold with agarose-chitosan based bioink and osteoblast cells for bioprinter feasibility verification

(3986100) DIVISION: CELL

Presenter(s): Ali Mousavi

Location: Virtual Session (Virtual Only)

# Advancing glycerol-derived solvents for lignin-first organosolv biorefining of lignocellulosic biomass

(3993816) DIVISION: CELL

Presenter(s): James D. Sheehan

Location: Hall C (Ernest N. Morial Convention Center)

# Arrested methanogenesis Technology for Sustainable Bioproducts and biofuels production from high-strength waste streams

(3996832) DIVISION: CELL

Presenter(s): Meltem Urgun-Demirtas

Location: Hall C (Ernest N. Morial Convention Center)

#### Cellulose nanocrystals coating for improving antifouling properties of membranes

(3989520) DIVISION: CELL

Presenter(s): Salvatore Lombardo

Location: Hall C (Ernest N. Morial Convention Center)

# Cluster-triggered autoluminescence of glucose and its derivatives: An initial study to characterize biopolymer supramolecular interactions

(3988072) DIVISION: CELL

Presenter(s): Marcus Alexander Johns

Location: Hall C (Ernest N. Morial Convention Center)

#### Colorful, circular and stimuli-responsive: the changing paradigm of lignin-based materials

(3990997) DIVISION: CELL

Presenter(s): Mika Sipponen

Location: Hall C (Ernest N. Morial Convention Center)

#### Conductive paper composites for aluminum-air batteries

(3990593) DIVISION: CELL

Presenter(s): Anny Carolina Morales Araujo Location: Hall C (Ernest N. Morial Convention Center)

#### Dislocation mechanism of $\alpha$ -chitin crystal

(4002328) DIVISION: CELL

Presenter(s): Zhangmin Wan

Location: Hall C (Ernest N. Morial Convention Center)

#### Effects of multiple polymer degradation pathways within compost conditions

(4016221) DIVISION: CELL

Presenter(s): Gray Warrick Calaway

Location: Hall C (Ernest N. Morial Convention Center)

### Elucidating the role of hierarchical structure of soy proteins in adhesive wet strength

(3995688) DIVISION: CELL

Presenter(s): Nayomi Plaza

Location: Hall C (Ernest N. Morial Convention Center)

### Enzymatic cascade functionalization of extracted hemicelluloses from spruce and eucalyptus

(3982400) DIVISION: CELL

Presenter(s): Zsuzsanna Peter-Szabo

Location: Hall C (Ernest N. Morial Convention Center)

# Exploiting the inherent chirality of cellulose: Synthesis of non-conventional chiral stationary phases for enantioseparation by HPLC

(3993485) DIVISION: CELL

Presenter(s): Hubert Hettegger

Location: Hall C (Ernest N. Morial Convention Center)

#### Extraction of bioactive compounds from woody biomass using hydrodynamic cavitation

(3987462) DIVISION: CELL

Presenter(s): Petri Olavi Kilpelainen

Location: Hall C (Ernest N. Morial Convention Center)

#### GlycoData: Glycomip's endeavor to revolutionize glycomaterial data sharing

(3993937) DIVISION: CELL

Presenter(s): Fangxi Wang

Location: Hall C (Ernest N. Morial Convention Center)

#### Green and economical synthesis of Deep Eutectic Solvent (DES)-pretreated highstrength densified wood

(3988133) DIVISION: CELL

Presenter(s): Akash Gondaliya

Location: Hall C (Ernest N. Morial Convention Center)

#### Green electronics produced by iron-catalyzed laser-induced graphitization: Current challenges and future perspectives

(3995416) DIVISION: CELL

Presenter(s): Christopher Dreimol

Location: Hall C (Ernest N. Morial Convention Center)

#### Harnessing lignin's potential: Steps towards a sustainable sorbent for carbon capture

(3985021) DIVISION: CELL

Presenter(s): Jake Carrier

Location: Hall C (Ernest N. Morial Convention Center)

# Integrated machine learning and big data analysis for hyperspectral characterization of heterogeneous municipal solid waste

(3997423) DIVISION: CELL

Presenter(s): Mariangeles Salas

Location: Hall C (Ernest N. Morial Convention Center)

# Leveraging glycerol-derived solvents for low-pressure reductive catalytic fractionation of softwood lignins into value-added aromatic monomers

(3987795) DIVISION: CELL

Presenter(s): Bernard C. Ekeoma

Location: Hall C (Ernest N. Morial Convention Center)

#### Melt-spun lignin ester fibers and their magnetic hybrids to facilitate separation processes

(3991011) DIVISION: CELL

Presenter(s): Unnimaya Thalakkale Veettil

Location: Hall C (Ernest N. Morial Convention Center)

# MOF and regenerated polysaccharide monodisperse foams via microfluidic liquid foam templating towards carbon capture applications

(3981251) DIVISION: CELL

Presenter(s): Yeedo Chun

Location: Hall C (Ernest N. Morial Convention Center)

#### MOF integrated cellulose-based nanofibrous aerogels for enhanced functionality

(3996453) DIVISION: CELL

Presenter(s): Vahid Rahmanian

Location: Hall C (Ernest N. Morial Convention Center)

#### Non-isocyanate polyurethane bio-foam with inherent heat and fire resistance

(3976418) DIVISION: CELL

Presenter(s): Dallin L. Smith

Location: Hall C (Ernest N. Morial Convention Center)

### Stereolithography with lignin and cellulose: Designing chemistry for 3D printed continuous and aligned fiber composites that mimic plants

(3988382) DIVISION: CELL

Presenter(s): Stephen C Chmely

Location: Hall C (Ernest N. Morial Convention Center)

# Subcritical water extraction of high value fucoidan from brown seaweed (Fucus vesiculosus)

(3981636) DIVISION: CELL

Presenter(s): Aaron Ellis Brown

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis of birch bark-derived thermoset foams

(3997268) DIVISION: CELL

Presenter(s): Heather LaFrance

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthetic biocatalysts for enzymatic conversion of biomass into high-tech nanomaterials

(4005539) DIVISION: CELL

Presenter(s): Raul Pérez-Jiménez

Location: Hall C (Ernest N. Morial Convention Center)

#### Tough and fatigue resistant nanoadhesives from chitosan nanocrystals

(3988305) DIVISION: CELL

Presenter(s): Tony Jin

Location: Hall C (Ernest N. Morial Convention Center)

#### Toward smart and safe engineered materials and devices for clean air and water

(3978798) DIVISION: CELL

Presenter(s): Ulrica Edlund

Location: Hall C (Ernest N. Morial Convention Center)

### Understanding the role of protein coalescence in improving protein-based adhesives for wood products

(3996643) DIVISION: CELL

Presenter(s): Chris G Hunt

Location: Hall C (Ernest N. Morial Convention Center)

#### Unlocking the potential of plant polyphenols: A new frontier in multifunctional materials

(3978542) DIVISION: CELL

Presenter(s): Junling Guo

Location: Hall C (Ernest N. Morial Convention Center)

# Upcycling food waste to create a biodegradable, edible, and preservative bioplastic food coating

(3995806) DIVISION: CELL

Presenter(s): Jacquelyn McBride

Location: Hall C (Ernest N. Morial Convention Center)

### Using Sorbitol as an eco-friendly additive to prevent cracking in sheared cellulose nanocrystal films

(3996858) DIVISION: CELL

Presenter(s): Tanmay Rahman

Location: Hall C (Ernest N. Morial Convention Center)

#### Utilization of biomass and industrial waste on 3D printing applications

(3986402) DIVISION: CELL

Presenter(s): Angi Ji

Location: Hall C (Ernest N. Morial Convention Center)

# Utilizing ultrasonic spray for the integration of organic solar cells on cellulose curtains

(3992068)

**DIVISION: CELL** 

Presenter(s): Xinyu Jiang

Location: Hall C (Ernest N. Morial Convention Center)

#### **CHAL**

#### Evolution of counterfeit pharmaceuticals and the challenges they pose

(3987438) DIVISION: CHAL

Presenter(s): Nina Salazar

Location: Virtual Session (Virtual Only)

#### **CHAS**

#### How do you train undergraduate students in lab safety?

(3991915)

**DIVISION: CHAS** 

Presenter(s): Jamie Freeman

Location: Hall C (Ernest N. Morial Convention Center)

#### Safety through collaboration using the hierarchy of controls as inspiration

(3981193) DIVISION: CHAS

Presenter(s): Marta Guron

Location: Hall C (Ernest N. Morial Convention Center)

#### CINE

# Active learning for excited states dynamics simulations to discover molecular degradation pathways

(3991878) DIVISION: CINF

Presenter(s): Chen Zhou

Location: Hall C (Ernest N. Morial Convention Center)

#### ChatGPT chemistry assistant for text mining and prediction of MOF synthesis

(3985909) DIVISION: CINF

Presenter(s): Zhiling Zheng

Location: Hall C (Ernest N. Morial Convention Center)

#### Finding new function among known organic and organometallic crystaline materials

(3996646)

36 [CHAL]

**DIVISION: CINF** 

Presenter(s): Kimberley Rose Cousins

Location: Hall C (Ernest N. Morial Convention Center)

### Machine learning electron density prediction using weighted smooth overlap of atomic positions

(3996682) DIVISION: CINF

Presenter(s): Siddarth Achar

Location: Hall C (Ernest N. Morial Convention Center)

# Quantitative read-across structure-activity relationship (q-RASAR) modeling of aquatic toxicity of Atlantic and Pacific Salmons to organic chemicals

(3992097) DIVISION: CINF

Presenter(s): Siyun Yang

Location: Hall C (Ernest N. Morial Convention Center)

#### Quantum algorithm for the graph isomorphism problem

(3993062) DIVISION: CINF

Presenter(s): Nam Vu

Location: Hall C (Ernest N. Morial Convention Center)

# Substrate scope contrastive loss: Repurposing human bias to learn representations of reactive atoms

(3977789) DIVISION: CINF

Presenter(s): Wenhao Gao

Location: Hall C (Ernest N. Morial Convention Center)

### Three tales of marketization. The role of publication programs in the entry into an era of articlization in chemistry

(3993266) DIVISION: CINF

Presenter(s): Marianne Noel

Location: Hall C (Ernest N. Morial Convention Center)

### Toward accurate prediction of reaction minor products and impurities

(3990110) DIVISION: CINF

Presenter(s): Seung Kyun Ha

Location: Hall C (Ernest N. Morial Convention Center)

37 [CINF]

# ToxiVerse: an online comprehensive chemical profiling, modeling, and data analysis platform

(3989036) DIVISION: CINF

Presenter(s): Yitao Shen

Location: Hall C (Ernest N. Morial Convention Center)

### Utilizing low-dimensional molecular embeddings for rapid chemical similarity searching

(3979957) DIVISION: CINF

Presenter(s): James Wellnitz

Location: Hall C (Ernest N. Morial Convention Center)

#### COLL

#### 'Liquid-Like' solid surfaces: Combative strategy towards anti-biofouling

(3986812) DIVISION: COLL

Presenter(s): Arpita Shome

Location: Hall C (Ernest N. Morial Convention Center)

### Accelerated aging as a solvent-free methodology to access biomass-based nanomaterials

(3988376) DIVISION: COLL

Presenter(s): Tony Jin

Location: Hall C (Ernest N. Morial Convention Center)

### Achieving metal doping of strongly confined halide perovskite nanocrystals under ambient conditions

(3981856) DIVISION: COLL

Presenter(s): Zachary VanOrman

Location: Hall C (Ernest N. Morial Convention Center)

### Aluminum nanocrystals: The surface oxide as ligand for chemical functionalities

(3976431) DIVISION: COLL

Presenter(s): Naomi J Halas

Location: Hall C (Ernest N. Morial Convention Center)

### Antimicrobial efficiency of Ag- and Cu- nanoparticle-hydrogel nanocomposite systems

(3994590) DIVISION: COLL

Presenter(s): Katey Maerose Sheets

Location: Hall C (Ernest N. Morial Convention Center)

#### Capability study of laser-reduced graphene oxide electrochemical sensors

(3991186) DIVISION: COLL

Presenter(s): Braman Pendleton Cronin

Location: Hall C (Ernest N. Morial Convention Center)

# Cationic bolaamphiphiles containing different linker: Comparison study on self-assembly, in vitro cytotoxicity, antibacterial activity, and gene transfection

(3992185) DIVISION: COLL

Presenter(s): Pabitra Mondal

Location: Hall C (Ernest N. Morial Convention Center)

### Characterization of graphene oxide's physicochemical properties

(3995859) DIVISION: COLL

Presenter(s): Young Jun Chun

Location: Hall C (Ernest N. Morial Convention Center)

### Characterization of lipid-based natamycin nanocarriers for ophthalmic drug delivery

(3981637) DIVISION: COLL

Presenter(s): Luigi Talarico

Location: Hall C (Ernest N. Morial Convention Center)

### Computational investigation of the impact of orientations on ionic contact pairs

(3990805) DIVISION: COLL

Presenter(s): Shelby L Franke

Location: Hall C (Ernest N. Morial Convention Center)

# Decoupling sphere diameter and origami binding site size in microsphere/nanosphere lithography

(3992601) DIVISION: COLL

Presenter(s): Jacob Hastings | Michael Louis Norton Location: Hall C (Ernest N. Morial Convention Center)

### Design and delivery of new peptide-drug conjugates into three-dimensional tumoroids

(3997622) DIVISION: COLL

Presenter(s): Mary A Biggs | Ipsita A Banerjee

Location: Virtual Session (Virtual Only)

### Design and synthesis of antibacterial manganese sulfide nanoparticles for Pierce's disease

(3990582) DIVISION: COLL

Presenter(s): Yael Faroud

Location: Hall C (Ernest N. Morial Convention Center)

### Determining binding constants between LRP-1 and Fibrinogen: Applications in surface chemistry

(3997370) DIVISION: COLL

Presenter(s): Alyssa Yao

Location: Hall C (Ernest N. Morial Convention Center)

### Developing selenium precursors for ZnSe nanocrystal syntheses

(3991551) DIVISION: COLL

Presenter(s): Rebecca Smith

Location: Hall C (Ernest N. Morial Convention Center)

### Development of icariin loaded DSPE-PEG2000/DPPC micelles for pulmonary delivery

(3987453) DIVISION: COLL

Presenter(s): Chengwei Jiang

Location: Hall C (Ernest N. Morial Convention Center)

### Development of plasmonic catalysts for light-driven ammonia production

(3993770) DIVISION: COLL

Presenter(s): Dominic Grinnell

Location: Hall C (Ernest N. Morial Convention Center)

### Directing phase separation to harness microstructure in biomaterials for controlled cellular behavior

(3980368) DIVISION: COLL

Presenter(s): Linqing Li

Location: Hall C (Ernest N. Morial Convention Center)

### Directing triplet and singlet energy transfer in halide perovskite nanocrystalrhodamine dye hybrids

(3987272) DIVISION: COLL

Presenter(s): Akshaya Chemmangat

Location: Hall C (Ernest N. Morial Convention Center)

### Divalent cations promote huntingtin fibril formation on endoplasmic reticulum model membranes

(3995228) DIVISION: COLL

Presenter(s): Shelli Frey

Location: Hall C (Ernest N. Morial Convention Center)

# Effect of operational parameters on photocatalytic degradation of ibuprofen pharmaceutical using coconut shell activated carbon doped ZnO nanocomposites

(3995920) DIVISION: COLL

Presenter(s): Adewumi Oluwasogo Dada

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring the binding of metal cations to negatively charged lipids by diffusion constant measurements

(3983136) DIVISION: COLL

Presenter(s): Ryan Zdenek

Location: Hall C (Ernest N. Morial Convention Center)

# General synthesis of rare earth oxide nanocluster superstructures via high temperature surface ligand switching

(3997637) DIVISION: COLL

Presenter(s): Grayson Johnson

Location: Hall C (Ernest N. Morial Convention Center)

### Glutathione monolayer protected nanoparticles influence calcium phosphate mineralization of collagen

(3990186) DIVISION: COLL

Presenter(s): Kristy Ta

Location: Hall C (Ernest N. Morial Convention Center)

### Gold- and gold/silver-deposited magnesium ferrite-based nanoparticles for catalytic reduction of 4-nitrophenol

(3994380) DIVISION: COLL

Presenter(s): Supawitch Hoijang

Location: Hall C (Ernest N. Morial Convention Center)

#### Graphene oxide and its derivatives as adsorbents for PFOA molecules

(3992199) DIVISION: COLL

Presenter(s): Xin Wang

Location: Hall C (Ernest N. Morial Convention Center)

#### Highly fluorescent nanoplatforms for specific cell targeting

(3991747) DIVISION: COLL

Presenter(s): Malte Holzapfel

Location: Hall C (Ernest N. Morial Convention Center)

### Human serum albumin conjugated gold nanoparticles based drug delivery systems of ferulic acid and sinapic acid

(3994931) DIVISION: COLL

Presenter(s): Anjali Anjali

Location: Virtual Session (Virtual Only)

# Impact of amphiphilic co-solvents on cellular membrane organization and its implications for biofuel production

(3994849) DIVISION: COLL

Presenter(s): Jonathan D. Nickels

Location: Hall C (Ernest N. Morial Convention Center)

# Incorporating octanethiol-functionalized gold nanoparticles into the interior of bilayer peptoid nanosheets

(3993821)

**DIVISION: COLL** 

Presenter(s): Ellen Jean Robertson

Location: Hall C (Ernest N. Morial Convention Center)

### Influence of alcohols on the mechanical properties and phase behaviour of lipid bilayers

(3983164) DIVISION: COLL

Presenter(s): Suryabrahmam Buti

Location: Hall C (Ernest N. Morial Convention Center)

### Investigation of the thermodynamics and kinetics of transition metal ion - lipid binding interactions

(3986209) DIVISION: COLL

Presenter(s): Olivia C. Fiebig

Location: Hall C (Ernest N. Morial Convention Center)

#### Iron-mediated cancer therapy promoted by hyperthermia

(3986250) DIVISION: COLL

Presenter(s): Menglei Zha

Location: Virtual Session (Virtual Only)

### Langmuir Monolayers as model cell membrane systems for the investigation of the healing effects of bee propolis and its main bioactibve component on burned and wounded skin cells

(3994753) DIVISION: COLL

Presenter(s): Ivy Hawkins

Location: Hall C (Ernest N. Morial Convention Center)

### Mechanisms of nanobubbles interactions with biological macromolecules

(3976213) DIVISION: COLL

Presenter(s): Miroslav Colic

Location: Hall C (Ernest N. Morial Convention Center)

# Membraneless organization in a molecularly crowded environment: Interplay between associative and segregative LLPS systems

(3987767) DIVISION: COLL

Presenter(s): Caroline Love

Location: Hall C (Ernest N. Morial Convention Center)

#### Metal doping effect on bi-icosahedral Au25 nanoclusters

(3985227) DIVISION: COLL

Presenter(s): Benjamin Raufman | Catherine Connolly | Mary Devadas

Location: Virtual Session (Virtual Only)

### Modifying reaction conditions to control nanoparticle morphology in gold decorated graphene oxide

(3996901) DIVISION: COLL

Presenter(s): Seth Burkert

Location: Hall C (Ernest N. Morial Convention Center)

# Modulation of two-dimensional exciton emissions at room temperature by colloidal gold nanodisk-based plasmonic nanocavities

(3980101) DIVISION: COLL

Presenter(s): Xinyue Xia

Location: Hall C (Ernest N. Morial Convention Center)

### Molecular structure of 1:1 cationic:anionic surfactant pairs at the oil-water interface: Joined at the tail or not?

(3985768) DIVISION: COLL

Presenter(s): Konnor Jones

Location: Hall C (Ernest N. Morial Convention Center)

### Multiexcitonic emission from Cs2ZrCl6:Mo4+ vacancy ordered lead-free double perovskites

(3993110) DIVISION: COLL

Presenter(s): Shubham Kumar

Location: Hall C (Ernest N. Morial Convention Center)

#### Multifunctional molecular ferroelectric metamaterials

(3977198) DIVISION: COLL

Presenter(s): Shengiang Ren

Location: Hall C (Ernest N. Morial Convention Center)

# Multifunctional nanogels to cure drug-resistant bacterial infections and attenuate bacterial antigen-responsive hyper-inflammation

(3993927) DIVISION: COLL

Presenter(s): Sudip Mukherjee

Location: Hall C (Ernest N. Morial Convention Center)

#### Nickel-copper bimetallic nanocatalyst synthesis via galvanic exchange

(3993780) DIVISION: COLL

Presenter(s): Chathura Buddhika Wijethunga Location: Hall C (Ernest N. Morial Convention Center)

#### Nitric oxide-releasing glycosaminoglycans for corneal wound healing

(3994190) DIVISION: COLL

Presenter(s): Margery E Purvis

Location: Hall C (Ernest N. Morial Convention Center)

# Novel theranostic nanocarriers for combined drug delivery and diagnostic monitoring by Magnetic Resonance Imaging (MRI)

(3986327) DIVISION: COLL

Presenter(s): Neve Thomson

Location: Hall C (Ernest N. Morial Convention Center)

#### Perfluorooctanoic acid fluidizes membranes and enhances bioconcentration

(3997603) DIVISION: COLL

Presenter(s): Rhys C. Trousdale

Location: Hall C (Ernest N. Morial Convention Center)

### Phase behavior of attractive polymer chains via Monte Carlo simulation

(3995222) DIVISION: COLL

Presenter(s): Alberto Sevilla

Location: Virtual Session (Virtual Only)

# Photo-catalytic degridation of emerging pollutants using a nano-carbon / TiO2 self-assembled coating

(3995175) DIVISION: COLL

Presenter(s): Margaret A. Burrows

Location: Hall C (Ernest N. Morial Convention Center)

# pH-responsive rhenium disulfide/mesoporous silica core-shell nanoparticles for drug delivery, chemo-photothermal therapy and cellular imaging

(3985256) DIVISION: COLL Presenter(s): Ha Na

Location: Hall C (Ernest N. Morial Convention Center)

#### Plasmon driven chemistry of viologen derivatives

(3991379) DIVISION: COLL

Presenter(s): Tara Huffman

Location: Hall C (Ernest N. Morial Convention Center)

# Preventing coarsening of foams using hydrophobically modified silica nanoparticles: A study using microfluidics, xray reflectivity, grazing incidence small angle xray scattering and dilational viscosity measurents

(3996794) DIVISION: COLL

Presenter(s): Charles Maldarelli

Location: Hall C (Ernest N. Morial Convention Center)

### Probing the thermodynamics of the nanoparticle-protein corona using a hostguest framework

(3989285) DIVISION: COLL

Presenter(s): Chathuri S. Kariyawasam

Location: Hall C (Ernest N. Morial Convention Center)

### Room-temperature quantum coherence in icosahedral virus particles

(3996341) DIVISION: COLL

Presenter(s): Bogdan Dragnea

Location: Hall C (Ernest N. Morial Convention Center)

# Self-organization of active colloids induced by shape heterogeneity and broken axisymmetry

(3992913) DIVISION: COLL

Presenter(s): William E Uspal

Location: Hall C (Ernest N. Morial Convention Center)

# SFG and QCM-D studies on interfacial behavior and antifouling activity of adsorbed copolymers at solid/liquid interfaces in situ in real-time

(3979347) DIVISION: COLL

Presenter(s): jinpeng Gao

Location: Hall C (Ernest N. Morial Convention Center)

#### Strain-induced photonic Pseudomagnetism in colloidal assemblies

(3978203) DIVISION: COLL

Presenter(s): Mikael Rechtsman

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis and characterization of gold nanoclusters with an electroactive ligand

(3977013) DIVISION: COLL

Presenter(s): Tessa Snyder | Jakob Winterle | Mary Devadas

Location: Virtual Session (Virtual Only)

# Synthesis and characterization of stimuli- responsive self-assembling cyclic peptide nanotubes through light exposure

(3994689) DIVISION: COLL

Presenter(s): Olufolasade Atoyebi

Location: Hall C (Ernest N. Morial Convention Center)

### Thermal-responsive nanocrystals superlattice from increased mobility of NCS with lubricating ligands

(3992808) DIVISION: COLL

Presenter(s): Shengsong Yang

Location: Hall C (Ernest N. Morial Convention Center)

# To bind or not to bind: Donor-acceptor complexation at the liquid-solid interface through bivalent design

(3983331) DIVISION: COLL

Presenter(s): Robby Reynaerts

Location: Hall C (Ernest N. Morial Convention Center)

### Transport of small molecules across surfactant-laden interfaces

(3991188) DIVISION: COLL

Presenter(s): Xin Wang

Location: Hall C (Ernest N. Morial Convention Center)

# Tuning the magnetic response of organic/inorganic nanocomposites composed of Spion embedded nanogels

(3989583) DIVISION: COLL

Presenter(s): Dominic Gray

Location: Hall C (Ernest N. Morial Convention Center)

# Using model membranes to investigate the relationship between sex hormones and cholesterol and their role in the progression of Alzheimer's Disease

(3995127) DIVISION: COLL

Presenter(s): Cassandra Nolasco

Location: Hall C (Ernest N. Morial Convention Center)

#### **COMP**

#### Accelerated discovery of high entropy thermoelectric alloys via active learning

(3984429)

**DIVISION: COMP** 

Presenter(s): Wooseok Lee

Location: Hall C (Ernest N. Morial Convention Center)

# Accelerating computational molecular discovery with integrated Tabu search and machine learning

(3993146)

**DIVISION: COMP** 

Presenter(s): Sandip Giri

Location: Hall C (Ernest N. Morial Convention Center)

### Acceleration of early drug discovery using Al-driven approaches: Identification of potential novel inhibitors for rabies

(3990480)

**DIVISION: COMP** 

Presenter(s): Sankalp Jain

Location: Hall C (Ernest N. Morial Convention Center)

### Adapting Cluspro for efficient transmembrane protein docking

(3995344)

DIVISION: COMP Presenter(s): Hao Yu

Location: Hall C (Ernest N. Morial Convention Center)

# Advancing CPHMD Research: A comprehensive automation pipeline and its application to folate receptor dynamics

(3994048) DIVISION: COMP

Presenter(s): Stanislav Cherepanov

Location: Hall C (Ernest N. Morial Convention Center)

### Advancing G-quadruplex drug targeting through polarizable simulations and SILCS

(3981592)

**DIVISION: COMP** 

Presenter(s): Haley Michel

Location: Hall C (Ernest N. Morial Convention Center)

# Advancing lignin bioconversion: Structure-activity relationships of cytochrome P450 aromatic O-demethylase using QM-cluster models

(3993728)

**DIVISION: COMP** 

Presenter(s): Tejaskumar Suhagia

Location: Hall C (Ernest N. Morial Convention Center)

### Benchmarking protein FEP+ for non-canonical amino acid mutations in cyclic peptides

(4002736)

DIVISION: COMP
Presenter(s): Lei Yu

Location: Hall C (Ernest N. Morial Convention Center)

### Bridging the gap between first principles reaction discovery and continuum modeling

(3976922)

DIVISION: COMP
Presenter(s): Rui Xu

Location: Hall C (Ernest N. Morial Convention Center)

# Combining classical selected-CI approaches and quantum computing : Quantum state preparation via Overlap-ADAPT-VQE

(3994252)

**DIVISION: COMP** 

Presenter(s): César Feniou

Location: Hall C (Ernest N. Morial Convention Center)

#### Computational analysis of a fluorinated 1,4-diphenyl-5,6-fused ring pyridazine

(3994444)

**DIVISION: COMP** 

Presenter(s): Steven Wild

Location: Hall C (Ernest N. Morial Convention Center)

#### Computational study of multienzyme colocalization on lipid membrane

(3992829)

**DIVISION: COMP** 

Presenter(s): Shivansh Kaushik

Location: Hall C (Ernest N. Morial Convention Center)

### Conformational analysis of nucleic acids for optimizing DNA and RNA topological models

(3994970)

**DIVISION: COMP** 

Presenter(s): Philippe Archambault

Location: Hall C (Ernest N. Morial Convention Center)

### Constant pH molecular dynamics of porcine circovirus 2 capsid protein reveals a mechanism for capsid assembly

(3996203)

**DIVISION: COMP** 

Presenter(s): Elvira Tarasova

Location: Hall C (Ernest N. Morial Convention Center)

# Constrained nuclear-electronic orbital (CNEO) framework: Accurate vibrational spectra and reaction rates from efficient incorporation of nuclear quantum effects

(3979963)

**DIVISION: COMP** 

Presenter(s): Yang Yang

Location: Hall C (Ernest N. Morial Convention Center)

### Construction of machine-learned molecular mechanics force field using end-toend differentiable framework

(3986823)

**DIVISION: COMP** 

Presenter(s): Kenichiro Takaba

Location: Hall C (Ernest N. Morial Convention Center)

### Density matrix embedding to explore localized electronic states in finite and extended systems

(3979571)

**DIVISION: COMP** 

Presenter(s): Shreya Verma

Location: Hall C (Ernest N. Morial Convention Center)

### Development of a protein-ligand 3D structure database for AI-based binding site prediction

(3988303)

**DIVISION: COMP** 

Presenter(s): Dongwoo Kim

Location: Hall C (Ernest N. Morial Convention Center)

# DFT analysis of polyene radical stability via Hammett like constants, thermodynamic properties, and spin density fitting parameters

(3992780)

**DIVISION: COMP** 

Presenter(s): Steven Patrick Nixon

Location: Hall C (Ernest N. Morial Convention Center)

#### Distopia: A molecular geometry analysis MDAKit

(3993288)

**DIVISION: COMP** 

Presenter(s): Richard J Gowers

Location: Hall C (Ernest N. Morial Convention Center)

# Efficient protocol for accurately triaging molecules in the development of a SARS-CoV-2 main protease inhibitor

(3985590)

**DIVISION: COMP** 

Presenter(s): Alex Matthew Payne

Location: Hall C (Ernest N. Morial Convention Center)

# Expanded package for IET-based solvation to perform 3D-RISM calculations for solvation of chemical and biological molecules

(3985046)

DIVISION: COMP

Presenter(s): Sigin Cao

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring methods for developing a machine learned interatomic potential for ultra-high temperature ceramics

(3994529)

**DIVISION: COMP** 

Presenter(s): Vayle Vera Cruz

Location: Hall C (Ernest N. Morial Convention Center)

# Extreme-scale heterogeneous inference with large language models and atomistic graph neural networks for catalyst discovery

(3997655) DIVISION: COMP

Presenter(s): Mariefel Valenzuela Olarte

Location: Hall C (Ernest N. Morial Convention Center)

#### Furthering design of mimetic lipoproteins peptides through all-atom simulations

(3986413) DIVISION: COMP

Presenter(s): Zachary Jarin

Location: Hall C (Ernest N. Morial Convention Center)

### Guided molecular generation via fragment-based incorporating with physicochemical properties

(3997606)

**DIVISION: COMP** 

Presenter(s): Islambek Ashyrmamatov

Location: Hall C (Ernest N. Morial Convention Center)

# Harnessing GPU power for quantum leap in computational chemistry: Scaling electronic structure methods with Julia Language

(3979780)

DIVISION: COMP

Presenter(s): Leticia Madureira

Location: Hall C (Ernest N. Morial Convention Center)

### Highlighting potential challenges in time-dependent equation-of-motion coupled-cluster theory

(3977540)

**DIVISION: COMP** 

Presenter(s): Stephen Haniel Yuwono

Location: Hall C (Ernest N. Morial Convention Center)

### High-throughput design of the rapeutic antibodies with a $\lambda$ Dynamics-based approach

(3994826)

**DIVISION: COMP** 

Presenter(s): Amirmasoud Samadi

Location: Hall C (Ernest N. Morial Convention Center)

#### Improving accuracy of chemical search using minimal enumeration Library

(3990237)

**DIVISION: COMP** 

Presenter(s): Ebadah Khan

Location: Hall C (Ernest N. Morial Convention Center)

### Influence of model building schemes and molecular dynamics sampling on QM-cluster models: The chorismate mutase case study

(3990781)

**DIVISION: COMP** 

Presenter(s): Donatus Atsu Atsu Agbaglo | Thomas Summers | Qianyi Cheng | Nathan J

Deyonker

Location: Hall C (Ernest N. Morial Convention Center)

### Inverse design of crystals with symmetry enforcement using generative diffusion models

(3996951)

**DIVISION: COMP** 

Presenter(s): Ryotaro Okabe

Location: Hall C (Ernest N. Morial Convention Center)

### Investigating an enzyme mechanism using computed NMR spectra of patchouli oil epimers

(3979578)

**DIVISION: COMP** 

Presenter(s): Christian S. Hamann

Location: Hall C (Ernest N. Morial Convention Center)

### Investigation of cannabidiol's potential targets in limbic seizures: In-Silico approach

(3990429)

**DIVISION: COMP** 

Presenter(s): Olabimpe Olafuyi

Location: Hall C (Ernest N. Morial Convention Center)

### Is double decoupling statistically equivalent to transfer in explicit solvent?

(3996657)

**DIVISION: COMP** 

Presenter(s): Solmaz Azimi

Location: Hall C (Ernest N. Morial Convention Center)

# Lambda Dynamics with bias updated Gibbs sampling delivers accurate and highly efficient free energies of binding

(3981920)

**DIVISION: COMP** 

Presenter(s): Jonah Z Vilseck

Location: Hall C (Ernest N. Morial Convention Center)

#### Machine-learned reaction coordinates for hydrophobic ligand dissociation

(3981390)

**DIVISION: COMP** 

Presenter(s): Eric Beyerle

Location: Hall C (Ernest N. Morial Convention Center)

#### Mechanisms of DNA cleavage in CRISPR-Cas systems

(3989068)

**DIVISION: COMP** 

Presenter(s): Richard Van

Location: Hall C (Ernest N. Morial Convention Center)

### Modulation of allostery with multiple mechanisms by hotspot mutations in TetR

(3978417)

**DIVISION: COMP** 

Presenter(s): Jiahua Deng

Location: Hall C (Ernest N. Morial Convention Center)

### Molecular dynamics investigation of the TT and TGT mutations of DNA aptamers for lead with variable salinity

(3989987)

**DIVISION: COMP** 

Presenter(s): Sarah Michelle Lee Bartley

Location: Hall C (Ernest N. Morial Convention Center)

### Molecular modelling of biodegradable plastics

(3985270)

**DIVISION: COMP** 

Presenter(s): Cindy Y. Liu

Location: Hall C (Ernest N. Morial Convention Center)

### Neural network based force-fields for graphene oxide-aqueous interfaces

(3987678)

**DIVISION: COMP** 

Presenter(s): Golam Azom

Location: Hall C (Ernest N. Morial Convention Center)

### New metric and benchmark for assessing virtual screening performance on large libraries

(3993425)

**DIVISION: COMP** 

Presenter(s): Michael Brocidiacono

Location: Hall C (Ernest N. Morial Convention Center)

### Novel approach for pose prediction of generatively designed compounds with diverse cores for profiling using FEP-based approaches

(3996308)

**DIVISION: COMP** 

Presenter(s): Rajat Kumar Pal

Location: Hall C (Ernest N. Morial Convention Center)

# Optimizing discrete frequency infrared imaging using a regressive neural network for visualization and quantification of Secondary Structural Heterogeneity of protein deposits in human tissue sections

(3995057)

**DIVISION: COMP** 

Presenter(s): Harrison O'Neal Edmonds

Location: Hall C (Ernest N. Morial Convention Center)

#### Organizing 3D project data for structure-based drug design

(3995026)

**DIVISION: COMP** 

Presenter(s): Alain Ajamian

Location: Hall C (Ernest N. Morial Convention Center)

### **Predicting DFT-level descriptors for amide coupling reactions**

(3980181)

**DIVISION: COMP** 

Presenter(s): Shree Sowndarya Santhanalakkshmi Vejaykummar

Location: Hall C (Ernest N. Morial Convention Center)

# Predicting the shape of drug molecules containing the phenylethylamine moiety using machine learned potentials

(3982461)

**DIVISION: COMP** 

Presenter(s): Chris Williams

Location: Hall C (Ernest N. Morial Convention Center)

### Quantification of self-interaction errors in selective catalytic reduction of NOx in Cu-SSZ-13 zeolite

(3996431)

**DIVISION: COMP** 

Presenter(s): Priyanka Shukla

Location: Hall C (Ernest N. Morial Convention Center)

### Reaction-aware machine learning potentials using growing string method-based active learning

(3996256) DIVISION: COMP

Presenter(s): Siddarth Achar

Location: Hall C (Ernest N. Morial Convention Center)

# Simultaneous construction of free energy surfaces for the rational optimization of ligand unbinding kinetics

(3992317) DIVISION: COMP

Presenter(s): Thanh Tri Lai

Location: Hall C (Ernest N. Morial Convention Center)

#### Solvation thermodynamics barriers to binding site formation

(3992547)

**DIVISION: COMP** 

Presenter(s): Yeonji Ji

Location: Hall C (Ernest N. Morial Convention Center)

# Targeted protein degradation with heterobifunctional degraders: Modeling and screening

(3994923)

**DIVISION: COMP** 

Presenter(s): Michael L Drummond

Location: Hall C (Ernest N. Morial Convention Center)

### Thermodynamic and structural features of water in confined spaces

(3996680)

**DIVISION: COMP** 

Presenter(s): Joe Z Wu

Location: Hall C (Ernest N. Morial Convention Center)

### Topology design of polymers with decoupled thermodynamics and dynamics properties via machine learning

(3992930)

**DIVISION: COMP** 

Presenter(s): Tianyi Wang

Location: Hall C (Ernest N. Morial Convention Center)

#### Transferability of intrinsic reaction coordinates between related reactions

(3995099)

**DIVISION: COMP** 

Presenter(s): Edward N Brothers

Location: Hall C (Ernest N. Morial Convention Center)

#### Understanding the nucleation of cyclic polyoxovanadate-alkoxide clusters

(3995125)

**DIVISION: COMP** 

Presenter(s): Genevieve Duggan

Location: Hall C (Ernest N. Morial Convention Center)

### Understanding the structure-property relationship of ACC-Dimers via highthroughput density functional theory and machine learning

(3991472)

**DIVISION: COMP** 

Presenter(s): Luke Nambi Mohanam

Location: Hall C (Ernest N. Morial Convention Center)

#### **ENFL**

# 3D bipolar membrane fabrication and its influence on reverse- and forward-biased BPM applications

(3994668)

**DIVISION: ENFL** 

Presenter(s): Tianyue Gao

Location: Hall C (Ernest N. Morial Convention Center)

#### Alkali-promoted selective CO2 reduction to alcohols

(3990153)

**DIVISION: ENFL** 

Presenter(s): Ping Liu

Location: Hall C (Ernest N. Morial Convention Center)

# Ambient temperature synthesis and electrochemical performance of porous semiconducting metal chalcogels electrode materials for energy storage application

(3995928)

**DIVISION: ENFL** 

Presenter(s): Peighton Powe

Location: Hall C (Ernest N. Morial Convention Center)

### Biomass-derived electrode and electrolyte for green supercapacitors

(3989179) DIVISION: ENFL

Presenter(s): Ridwan Tobi Ayinla

Location: Hall C (Ernest N. Morial Convention Center)

### Boosting CeO2/Co3O4 heterojunctions acidic oxygen evolution via promoting OH coverage

(3977041) DIVISION: ENFL

Presenter(s): HuangJingWei Li

Location: Hall C (Ernest N. Morial Convention Center)

### CO2-oxidative ethane dehydrogenation over alumina-supported chromiumbased catalysts. The role of promoters in catalytic performance

(3991734) DIVISION: ENFL

Presenter(s): Jose M. Lopez-Nieto

Location: Hall C (Ernest N. Morial Convention Center)

# Computational design and study of a bimetallic salphen ligand scaffold for enhanced CO2 reduction reaction (CO2RR) catalysis

(3985037) DIVISION: ENFL

Presenter(s): Gavin McCarver

Location: Hall C (Ernest N. Morial Convention Center)

### Computational design of high entropy alloy catalysts for hydrogen technology

(3986779) DIVISION: ENFL

Presenter(s): Guofeng Wang

Location: Hall C (Ernest N. Morial Convention Center)

# Computational study on selected metalloporphyrins meso-decorated with thiophene for high-performance electrochemical energy storage systems: DFT investigations on the effect of the central metal

(3991709) DIVISION: ENFL

Presenter(s): Hiba Abdelmunam Ali

Location: Hall C (Ernest N. Morial Convention Center)

### Customized high-performance anion exchange membrane for alkaline redox flow batteries

(3979617) DIVISION: ENFL

Presenter(s): Run Yang

Location: Hall C (Ernest N. Morial Convention Center)

#### Decarbonizing lime kilns at pulp mills via electrification

(3995613) DIVISION: ENFL

Presenter(s): Edgar Carrejo

Location: Hall C (Ernest N. Morial Convention Center)

#### Design better electrolytes and interphases for Zn batteries

(3997184) DIVISION: ENFL

Presenter(s): Kang Xu

Location: Hall C (Ernest N. Morial Convention Center)

### Design of electrolytes for high-performance multivalent-ion battery: Insights from molecular simulations

(3981511) DIVISION: ENFL

Presenter(s): Dengpan Dong

Location: Hall C (Ernest N. Morial Convention Center)

### Design of tandem catalysts for conversion of CO2 to aromatics

(3977996) DIVISION: ENFL

Presenter(s): Dhrumil Shah

Location: Hall C (Ernest N. Morial Convention Center)

### Development of advanced electrocatalysts for CO2 and CO reduction

(4000114) DIVISION: ENFL

Presenter(s): Chao Wang

Location: Hall C (Ernest N. Morial Convention Center)

### Dry Reforming of Methane: Ni catalysts on high oxygen ion conductivity supports

(3994028) DIVISION: ENFL

Presenter(s): Xuan Pham

Location: Hall C (Ernest N. Morial Convention Center)

# Effect of super-optimal light intensity on acetic acid uptake and macromolecular synthesis in mixotrophic cultivation of Chlorella sorokiniana in bubble-column photobioreactors

(3993049) DIVISION: ENFL

Presenter(s): Gourab Ghosh

Location: Hall C (Ernest N. Morial Convention Center)

### Efficient energy harvesting using Ni-MoSe2/2D MOF counter electrode-based dye-sensitized solar cells

(3991895) DIVISION: ENFL

Presenter(s): John Bailey | Md Humayun Kabir Location: Hall C (Ernest N. Morial Convention Center)

# Electrocatalytic activity of Cu based MoF and its G-C3N4-based composites for oxygen reduction and evolution reaction in metal-air batteries

(3983858) DIVISION: ENFL

Presenter(s): Tayyaba Noor | Naseem Iqbal Location: Hall C (Ernest N. Morial Convention Center)

### Electrochemical CO2 reduction at surface modified silver nanoparticles

(3995786) DIVISION: ENFL

Presenter(s): Isa Trevino

Location: Hall C (Ernest N. Morial Convention Center)

### Electrodeposition of Ni, Co, Fe, and SE over carbon cloth towards electrocatalytic hydrogen evolution reaction

(3981110) DIVISION: ENFL

Presenter(s): Joseph Alan Waite

Location: Hall C (Ernest N. Morial Convention Center)

### Electrolyte for long-life lithium-ion batteries with mitigated transition metal dissolution

(3991543) DIVISION: ENFL

Presenter(s): Qijia Zhu

Location: Hall C (Ernest N. Morial Convention Center)

### Enhancing CO:H2 selectivity in CO2 electroreduction with an external magnetic field

(3985998) DIVISION: ENFL

Presenter(s): Nawaraj Karki

Location: Hall C (Ernest N. Morial Convention Center)

### Exploration of a comprehensive dilute acid pretreatment dataset on poplar wood: Modeling, mass balance, and reaction cascade

(3978834) DIVISION: ENFL

Presenter(s): Julien Du Pasquier

Location: Hall C (Ernest N. Morial Convention Center)

# High-rate capability and life cycling of 2D Mo4/3B2 i-MBene as an electrode for lithium-ion batteries and capacitors

(3994403) DIVISION: ENFL

Presenter(s): Karamullah Eisawi

Location: Hall C (Ernest N. Morial Convention Center)

### Hydrogen bonding-enhanced photoreforming of biomass furans on urea metalorganic frameworks

(3993263) DIVISION: ENFL

Presenter(s): Yingchuan Zhang

Location: Hall C (Ernest N. Morial Convention Center)

### Insights into the chemical structure and composition of bio-based deep eutectic solvent (DES) in biomass pretreatment

(3992881) DIVISION: ENFL

Presenter(s): Jiae Ryu

Location: Hall C (Ernest N. Morial Convention Center)

### Ionic liquids with sulfonyl fluoride moieties for electrochemical applications

(3987070) DIVISION: ENFL

Presenter(s): Clinton Adu

Location: Hall C (Ernest N. Morial Convention Center)

# Mechanistic insights into the low-temperature ozone assisted oxidation reactions of trans-2-pentene and cyclopentene

(3989899) DIVISION: ENFL

Presenter(s): Arden Floyd

Location: Hall C (Ernest N. Morial Convention Center)

### Metal-organic frameworks-derived cobalt-based selenides for electrochemical oxygen evolution reaction

(3992040) DIVISION: ENFL

Presenter(s): Mariam A. Ibrahim

Location: Hall C (Ernest N. Morial Convention Center)

#### Novel metal-free battery with applications under cold condition

(3994076) DIVISION: ENFL

Presenter(s): Ying Wang

Location: Hall C (Ernest N. Morial Convention Center)

# Perovskite films passivated by a dendrimer toward high efficiency and high stability devices

(3980107) DIVISION: ENFL

Presenter(s): Yifang Qi

Location: Hall C (Ernest N. Morial Convention Center)

### Physics-informed machine learning of redox flow battery based on a twodimensional unit cell model

(3989090) DIVISION: ENFL

Presenter(s): Wengian Chen

Location: Hall C (Ernest N. Morial Convention Center)

### Potential of anionic phosphine borane complexes for CO2 capture

(3991631) DIVISION: ENFL

Presenter(s): Nathaniel Yeboah

Location: Hall C (Ernest N. Morial Convention Center)

### Principle in determining fluorinated ether co-solvent for lithium metal batteries

(3978197) DIVISION: ENFL

Presenter(s): Chi-Cheung Su

Location: Hall C (Ernest N. Morial Convention Center)

# Process simulation and biocrude yield optimization of hydrothermal liquefaction of macroalgae(kelp)

(3991380) DIVISION: ENFL

Presenter(s): Micheal Asama

Location: Hall C (Ernest N. Morial Convention Center)

### Promoting effect of organic cations on the electrochemical reduction of CO2 in aprotic solvents

(3992099) DIVISION: ENFL

Presenter(s): Jon-Marc McGregor

Location: Hall C (Ernest N. Morial Convention Center)

### Scalable solid-state nanoporous networks with atomic-level interaction design for carbon dioxide capture

(3997397) DIVISION: ENFL

Presenter(s): Haiyan Mao

Location: Hall C (Ernest N. Morial Convention Center)

### Strategies to improve oxygen reduction reaction activity for high-temperature PEMFCs

(3992658) DIVISION: ENFL

Presenter(s): Honghong Lin

Location: Hall C (Ernest N. Morial Convention Center)

### Surface ensemble engineering of multi-metallic high entropy alloy nanoparticles for catalysis

(3992951) DIVISION: ENFL

Presenter(s): Nabojit Kar

Location: Hall C (Ernest N. Morial Convention Center)

# Sustainable conversion of carbon dioxide and methane via a thermochemical cyclic redox scheme

(4001135) DIVISION: ENFL

Presenter(s): Sherafghan Iftikhar

Location: Hall C (Ernest N. Morial Convention Center)

#### Sustainable direct alkaline seawater electrolysis via electrolyte manipulation

(3995760) DIVISION: ENFL

Presenter(s): Minghui Ning

Location: Hall C (Ernest N. Morial Convention Center)

#### Sustainable self-charging aqueous battery with low-temperature applications

(3981731) DIVISION: ENFL

Presenter(s): Ying Wang

Location: Hall C (Ernest N. Morial Convention Center)

#### Sustainable synthesis of acrylonitrile by electrolysis

(3979415) DIVISION: ENFL

Presenter(s): Justus Kuemper

Location: Hall C (Ernest N. Morial Convention Center)

### Thermal and structural stability of electrochemical lithiated graphite battery anodes

(3979010) DIVISION: ENFL

Presenter(s): Tobias Hoelderle

Location: Hall C (Ernest N. Morial Convention Center)

### Utilization of nitrogen containing wastewater nutrients by Nannochloris eucaryotum for the generation of algal biofuels

(3992860) DIVISION: ENFL

Presenter(s): Emily Clayton

Location: Hall C (Ernest N. Morial Convention Center)

### Zeolitic imdazeolite framework derived bifunctional electrocatalysts for oxygen electrode in metal air batteries

(3979251) DIVISION: ENFL

Presenter(s): Naseem Iqbal

Location: Hall C (Ernest N. Morial Convention Center)

#### **ENVR**

# Adsorbing tobacco specific nitrosamines with efficient sorbent derived from discarded cigarette butts

(3977461) DIVISION: ENVR

Presenter(s): Jian Hua Zhu

Location: Hall C (Ernest N. Morial Convention Center)

### Alien Garden: Investigating nutrient effects on algal growth from Martian simulant regolith and terrestrial environments

(3994324) DIVISION: ENVR

Presenter(s): Grant Dingley

Location: Hall C (Ernest N. Morial Convention Center)

### Applications of biopolymers for flow assurance management in the petroleum industry

(3975919)

**DIVISION: ENVR** 

Presenter(s): Mirza Taha Baig

Location: Hall C (Ernest N. Morial Convention Center)

# Bi-MOF/BiVO4 heterostructure photocatalyst with high surface area for the visible light-driven degradation of organic contaminants

(3992940)

**DIVISION: ENVR** 

Presenter(s): Zubaer M. Kazi

Location: Hall C (Ernest N. Morial Convention Center)

### Bioconjugation of gold nanoparticles to rare earth element binding proteins

(3996796)

**DIVISION: ENVR** 

Presenter(s): Sierra Murrell

Location: Hall C (Ernest N. Morial Convention Center)

# Bioremediation of aluminum contaminated soil using earthworm Lumbricus terrestris and exopolysaccharides under various pH

(3992465) DIVISION: ENVR

Presenter(s): Olanrewaju Olafuyi

Location: Hall C (Ernest N. Morial Convention Center)

### Biotechnological production of pyochelin siderophore in rare earth element enrichment

(3989024) DIVISION: ENVR

Presenter(s): Adam Reed

Location: Hall C (Ernest N. Morial Convention Center)

#### **Breaking down PFAS using rare earth metals**

(3986078) DIVISION: ENVR

Presenter(s): Muhammad Abbas

Location: Hall C (Ernest N. Morial Convention Center)

### Characterization of gas-phase products generated from reactions between terpenes and sodium hypochlorite bleach

(3981431) DIVISION: ENVR

Presenter(s): Callee McConnell Walsh

Location: Hall C (Ernest N. Morial Convention Center)

### Degradation of hydroxyzine under solar and ultraviolet light in varying conditions

(3990728) DIVISION: ENVR

Presenter(s): Julissa Chavana

Location: Hall C (Ernest N. Morial Convention Center)

# Degradation of perfluorooctanoic acid by iron activated persulfate oxidation in the presence of Alumnina

(3990199) DIVISION: ENVR

Presenter(s): Alexander Gustat

Location: Hall C (Ernest N. Morial Convention Center)

### Derivatization method for the determination of amino acid concentrations in Arctic marine waters

(3990417) DIVISION: ENVR

Presenter(s): Katherine Rose Mitchell

Location: Hall C (Ernest N. Morial Convention Center)

### Determination of selenite and selenate in environmental waters using ion chromatography-mass spectrometry

(3984104) DIVISION: ENVR

Presenter(s): Jingli Hu

Location: Hall C (Ernest N. Morial Convention Center)

# Development of a mobile device spectroscopic analysis tool for environmental nitrate testing that supports student stewardship projects

(3996963) DIVISION: ENVR

Presenter(s): Abigail Taylor

Location: Hall C (Ernest N. Morial Convention Center)

# Development of a rapid screening method for differentiation of brominated flame retardants and brominated azobenzene disperse dyes in textiles

(3994908) DIVISION: ENVR

Presenter(s): Alyssa Wicks

Location: Hall C (Ernest N. Morial Convention Center)

### Development of porous carbons and hybrid carbons for the treatment of heavy metal contaminated industrial wastewater

(3993183) DIVISION: ENVR

Presenter(s): Margaret Grace Lekan

Location: Hall C (Ernest N. Morial Convention Center)

### Direct UV photodegradation of 6PPD and its hydrolysis product in aqueous solution

(3994506) DIVISION: ENVR

Presenter(s): Joshua Johnson | Connor Rhodes | Patrick M Hare

Location: Hall C (Ernest N. Morial Convention Center)

### Dissolving gold from wastes in alkali halide solution

(3972476) DIVISION: ENVR

Presenter(s): Tomohide Takami

Location: Hall C (Ernest N. Morial Convention Center)

### Drugs detected at rest areas and truck servicing facilities in Kentucky

(3995600)

**DIVISION: ENVR** 

Presenter(s): Anita Sapkota

Location: Hall C (Ernest N. Morial Convention Center)

# Effects of cadmium, arsenic, and lead on Manduca sexta exposed to lead levels found in plants growing on the Pueblo superfund site soils

(3984072)

**DIVISION: ENVR** 

Presenter(s): Jim Carsella

Location: Hall C (Ernest N. Morial Convention Center)

# Electrochemical Studies of perfluorooctanoic Acid (PFOA), perfluorooctane sulfonamide (PFOSA), and hexafluoropropylene oxide dimer Acid (HFPO-da)

(3988758) DIVISION: ENVR

Presenter(s): Bizuneh Workie

Location: Hall C (Ernest N. Morial Convention Center)

### Elucidating the selective binding mechanisms of arsenic over phosphate by Fe3+-chitosan: A DFT study

(3987727) DIVISION: ENVR

Presenter(s): Obinna Nwokonkwo

Location: Hall C (Ernest N. Morial Convention Center)

# Enhancing lithium extraction efficiency: Utilizing contact angle and surface energy analysis to counteract magnesium salt scaling

(3984979) DIVISION: ENVR

Presenter(s): Qixiang Feng

Location: Hall C (Ernest N. Morial Convention Center)

# Evaluating the antibacterial potential of distinct size populations of stabilized zinc nanoparticles for citrus greening disease therapeutic development

(3982435) DIVISION: ENVR

Presenter(s): Melinda Stevens

Location: Hall C (Ernest N. Morial Convention Center)

### Fate of antibiotics during phosphate recovery from synthetic swine wastewater

(3992697) DIVISION: ENVR

Presenter(s): Nathaniel Bolujoko

Location: Hall C (Ernest N. Morial Convention Center)

# Fundamental Negative Ion Spectroscopic Studies Involving Fluorene and Its Cyanofunctionalized Derivatives.

(4047626) DIVISION: ENVR

Presenter(s): Dushmantha N. Koku Hannadige Abeysooriya

Location: Hall C (Ernest N. Morial Convention Center)

#### Graphene-Mediated removal of micropollutants for water security

(3991609) DIVISION: ENVR

Presenter(s): Summer Nash

Location: Hall C (Ernest N. Morial Convention Center)

#### Harnessing hemp and hydrogel for environmental water restoration

(3995205) DIVISION: ENVR

Presenter(s): Aryanna Jones

Location: Hall C (Ernest N. Morial Convention Center)

#### Harnessing hemp: A natural solution for PFAS removal in water

(3992593)

**DIVISION: ENVR** 

Presenter(s): Sakiya McGhee | Saniya McGhee | Madison Ridgeway | Simone Silent

Location: Hall C (Ernest N. Morial Convention Center)

### Heavy metal presence in the Connecticut River as a product of socioeconomic status

(3988401)

**DIVISION: ENVR** 

Presenter(s): Sarah DeSanto

Location: Hall C (Ernest N. Morial Convention Center)

# Hevay metals analysis on freshwater turtle species: Examining the effects of industry in Dalton, Georgia

(3983531)

**DIVISION: ENVR** 

Presenter(s): Rebecca Brosky

Location: Hall C (Ernest N. Morial Convention Center)

### Hexavalent chromium (Cr(VI)) removal using nanostructured iron oxides formed by thermal and anodic oxidation

(3989572)

**DIVISION: ENVR** 

Presenter(s): Wai Kian Tan

Location: Hall C (Ernest N. Morial Convention Center)

# High resolution mass spectrometry for analysis of emerging per- and polyfluoroalkyl substances (PFAS) in precipitation from the Midwestern United

States: A multi-year study

(3988874) DIVISION: ENVR

Presenter(s): Yubin Kim

Location: Hall C (Ernest N. Morial Convention Center)

### High-pressure ceramic nanofiltration: A novel and effective method for the recovery of dissolved organic carbon from natural waters

(3995106) DIVISION: ENVR

Presenter(s): Kali Pate | Collin P Ward

Location: Hall C (Ernest N. Morial Convention Center)

### Impacts of temperature on the Assembly of dissolved effluent organic matter (dEfOM)

(3993188) DIVISION: ENVR

Presenter(s): Hsiao-Ming Chang

Location: Hall C (Ernest N. Morial Convention Center)

### Improving the photodecomposition of penicillin V potassium using Mn-doped Tin sulfide nanoparticles

(3995833) DIVISION: ENVR

Presenter(s): Josue Colon Dedos

Location: Hall C (Ernest N. Morial Convention Center)

### Insight into the adsorption of per- and polyfluoroalkyl sulfonates in soil minerals

(3980105) DIVISION: ENVR

Presenter(s): Mary K O'Reilly

Location: Hall C (Ernest N. Morial Convention Center)

# Investigating growth competition of Chlorella, Spirulina, and Scenedesmus growth competition in wastewater containing varying concentrations of nitrogen and phosphorus

(3994456) DIVISION: ENVR

Presenter(s): Gabriella Miranda

Location: Hall C (Ernest N. Morial Convention Center)

### Investigation of PFAS adsorption onto aquifer materials: the important role of dolomite

(3989440) DIVISION: ENVR

Presenter(s): Yanan Zhao

Location: Hall C (Ernest N. Morial Convention Center)

### Iron mediated oxidative photodegradation of perfluorobutanoic acid by sulfate radical anion

(3999511) DIVISION: ENVR

Presenter(s): Hanna Tetu

Location: Hall C (Ernest N. Morial Convention Center)

### Low-cost adsorbents and fertilizers for phosphate adsorption and nutrient delivery

(3997368)

**DIVISION: ENVR** 

Presenter(s): Hannah Hyland

Location: Hall C (Ernest N. Morial Convention Center)

# Making electrochemical water treatment technology economical by setting the parameters dynamically: A machine learning approach

(3987279)

**DIVISION: ENVR** 

Presenter(s): Vignesh Vinayagam

Location: Hall C (Ernest N. Morial Convention Center)

### Marine microbial importance to oceanic carbon export determined through compound specific isotope and enantiomer analyses

(4042533)

DIVISION: ENVR

Presenter(s): Paul K Wojtal

Location: Hall C (Ernest N. Morial Convention Center)

### Metagenomic approach to eDNA

(3997607)

**DIVISION: ENVR** 

Presenter(s): Stephanie Quintanilla | Mercedes Barker

Location: Hall C (Ernest N. Morial Convention Center)

### Microbially mediated redox cycling of Fe(III)/Fe(II) in soils

(3986725)

**DIVISION: ENVR** 

Presenter(s): Danner Luke Keeton

Location: Hall C (Ernest N. Morial Convention Center)

#### Microplastic identification in rural north central Arkansas' water sources

(3992236)

DIVISION: ENVR

Presenter(s): Braden L. Glenn

Location: Hall C (Ernest N. Morial Convention Center)

### New psychoactive substances detected in municipal wastewater and interstate highway rest areas

(3995289)

DIVISION: ENVR

Presenter(s): Durga Prasad Kodati

Location: Hall C (Ernest N. Morial Convention Center)

### Observations of atmospheric chemical composition in New York City and New Haven, CT during the AEROMMA campaign

(3973024) DIVISION: ENVR

Presenter(s): Mitchell Alton

Location: Hall C (Ernest N. Morial Convention Center)

# Optimization of alginate beads for controlled release in environmental applications: A rational statistical approach

(3991220)

**DIVISION: ENVR** 

Presenter(s): Payagala Udawattage Ashvin Iresh Fernando | Alan Kennedy | Gilbert Kosgei

Location: Hall C (Ernest N. Morial Convention Center)

### Oxidation of CH3SO2- by [IrCl6]2- and E°(CH3SO2-/CH3SO2-)

(3987604)

**DIVISION: ENVR** 

Presenter(s): David M Stanbury

Location: Hall C (Ernest N. Morial Convention Center)

# Penguin feathers as ecological indicators of regional and historical per- and polyfluoroalkyl substances (PFAS) exposure

(3994432)

DIVISION: ENVR

Presenter(s): Matthew Badia

Location: Hall C (Ernest N. Morial Convention Center)

### PFAS concentration and accumulation history in Jordan Lake sediments

(3997185) DIVISION: ENVR

Presenter(s): Nadia Sheppard

Location: Hall C (Ernest N. Morial Convention Center)

#### Photochemical formation of hydroxyl radicals by petroleum products

(3986719) DIVISION: ENVR

Presenter(s): Kayla Spencer

Location: Hall C (Ernest N. Morial Convention Center)

### Photodegradation of common cyanotoxins across the freshwater to marine continuum

(3996792) DIVISION: ENVR

Presenter(s): Adam R Wronski

Location: Hall C (Ernest N. Morial Convention Center)

# Polymer functionalized Cu(BTC) metal-organic frameworks for chemical sensing applications

(3991828)

DIVISION: ENVR

Presenter(s): Sarah Clouse

Location: Hall C (Ernest N. Morial Convention Center)

# Portable 3D printed spectrofluorimeter for quantification of contaminants of emerging concern (CECs)

(3990531) DIVISION: ENVR

Presenter(s): Noah Herried

Location: Hall C (Ernest N. Morial Convention Center)

### Production of singlet oxygen by aqueous extracts of biomass-burning aerosol

(3982493) DIVISION: ENVR

Presenter(s): Daniel Bonomo

Location: Hall C (Ernest N. Morial Convention Center)

### Prospects and challenges of utilizing sugarcane bagasse as a bio-coagulant precursor for water treatment

(3987209) DIVISION: ENVR

Presenter(s): Abel Ujaigbe Egbemhenghe

Location: Hall C (Ernest N. Morial Convention Center)

73 [ENVR]

# Pyrolyzed FexOy-N@Z5 Composite as an Efficient Non-precious Metal Catalyst for elective catalytic oxidation of triethylamine and mechanism investigation

(3980404) DIVISION: ENVR

Presenter(s): Lingwu Meng

Location: Hall C (Ernest N. Morial Convention Center)

### Review of scientific literature on available methods of assessing organochlorine pesticides in the environment

(3993201) DIVISION: ENVR

Presenter(s): Chinemerem Ruth Ohoro

Location: Hall C (Ernest N. Morial Convention Center)

#### Scalable biosorption of Rare Earth Elements using bacillus subtilis spores

(3995773) DIVISION: ENVR

Presenter(s): Connor Clark

Location: Hall C (Ernest N. Morial Convention Center)

#### Seasonal production of oleuropein in white fringe trees

(3995420)

**DIVISION: ENVR** 

Presenter(s): Madeline Pawlak

Location: Hall C (Ernest N. Morial Convention Center)

## Single droplet study of the sea spray aerosol that contains the mercuric halides by using optical trapping - Raman spectroscopy

(3990629)

**DIVISION: ENVR** 

Presenter(s): Yukai Ai

Location: Hall C (Ernest N. Morial Convention Center)

### Studying a chemical approach for targeted mitigation of Florida red tide

(3995433)

DIVISION: ENVR

Presenter(s): Md-Istiak Hossain

Location: Hall C (Ernest N. Morial Convention Center)

# Submarine groundwater dissolved organic matter characteristics along salinity gradients in a shallow, mid-Atlantic, USA coastal embayment

(3980781) DIVISION: ENVR

74 [ENVR]

Presenter(s): Tianyin Ouyang

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis of CaS nanoparticle gels for removal of Pb2+ and Cd2+ via cation exchange

(3995830) DIVISION: ENVR

Presenter(s): Md Masudur Rhaman

Location: Hall C (Ernest N. Morial Convention Center)

### Toward a chemical tracer for fish feces in the biological pump: Amino acidspecific nitrogen isotope analysis of mesopelagic fish hindgut contents

(3999225) DIVISION: ENVR

Presenter(s): Grace Coyne

Location: Hall C (Ernest N. Morial Convention Center)

#### Transesterfication of recycled cooking oil for green biodiesel production

(3996986) DIVISION: ENVR

Presenter(s): Joseph Katavitch

Location: Hall C (Ernest N. Morial Convention Center)

# Urban measurements of gas-phase organic compounds to examine the prevalence and dynamics of highly functionalized gas-phase compounds

(3992287) DIVISION: ENVR

Presenter(s): Jo E Machesky

Location: Hall C (Ernest N. Morial Convention Center)

### Using designed proteins for chromatographic separation of rare earth elements

(3996157) DIVISION: ENVR

Presenter(s): Paata Burnadze

Location: Hall C (Ernest N. Morial Convention Center)

### Using machine learning to predict antimicrobial resistance in water-derived E. coli

(3988409) DIVISION: ENVR

Presenter(s): Clay Ihle

Location: Hall C (Ernest N. Morial Convention Center)

75 [ENVR]

#### Water reuse case studies from across the world

(3993179) DIVISION: ENVR

Presenter(s): Mohd Faraz Khan

Location: Hall C (Ernest N. Morial Convention Center)

#### **FLUO**

# Adventures in fluorocage chemistry: From a "simple" hydrocarbon cage toward novel fluorinated Janus-face compounds

(3978972) DIVISION: FLUO

Presenter(s): Alyssa Fediuk

Location: Hall C (Ernest N. Morial Convention Center)

#### Selective preparations of bridgehead-fluorinated cage compounds

(3991288) DIVISION: FLUO

Presenter(s): Jamie Thuan

Location: Hall C (Ernest N. Morial Convention Center)

#### **GEOC**

### 14C and $\delta$ 13C determination of dissolved organic carbon in brackish solutions and natural marine surface waters

(3996023) DIVISION: GEOC

Presenter(s): Rolando Alvarez

Location: Hall C (Ernest N. Morial Convention Center)

### Biogenic processes controlling net methane emissions in wetlands

(3997392) DIVISION: GEOC

Presenter(s): Gabrielle Esche Stevens

Location: Hall C (Ernest N. Morial Convention Center)

### Calcite dissolution as a function of varying Ca:CO3

(3993772)

**DIVISION: GEOC** 

Presenter(s): Tasfia Zaman

Location: Hall C (Ernest N. Morial Convention Center)

#### Celestite dissolution rates in nonstoichiometric solutions

(3993911)

76 [FLUO]

**DIVISION: GEOC** 

Presenter(s): Loagan Clements

Location: Hall C (Ernest N. Morial Convention Center)

### Elastic properties of geochemically treated polypropylene geosynthetic clay liners at high stress and elevated temperatures

(3997697) DIVISION: GEOC

Presenter(s): S A K V Miyurudarshi Piyathilake

Location: Virtual Session (Virtual Only)

## Impacts of incorporated Fe on hydration and carbonation reactions on the MgO (100) surface

(3993691) DIVISION: GEOC

Presenter(s): Gabriela Camacho

Location: Hall C (Ernest N. Morial Convention Center)

# Implication of machine learning based reactive-transport simulation model to predict trapping mechanisms on CO2 sequestration in deep saline aquifers

(3990874) DIVISION: GEOC

Presenter(s): Md Irfan Khan | Aaditya Khanal Location: Hall C (Ernest N. Morial Convention Center)

### Investigation of dissolution trapping in heterogeneous subsurface porous media

(3984102)

**DIVISION: GEOC** 

Presenter(s): Md Fahim Shahriar | Aaditya Khanal Location: Hall C (Ernest N. Morial Convention Center)

### Speciation of vanadium in sulfidic and polysulfidic waters

(3995530)

**DIVISION: GEOC** 

Presenter(s): Randi Libin-Straub | Troy Springis | Rachel Fischer | Dylan Bimberg

Location: Hall C (Ernest N. Morial Convention Center)

# Spectroscopic tracking of the dissolved organic carbon conversion to carbon dioxide in freshwater using UV irradiation for 14C and $\delta$ 13C determination: a South Florida case study

(3995651) DIVISION: GEOC

77 [GEOC]

Presenter(s): Elizabeth Brizuela

Location: Hall C (Ernest N. Morial Convention Center)

# Study of iodine distribution and concentrations in western Oklahoma brine waters and recycling of used chloroform

(3999117) DIVISION: GEOC

Presenter(s): Jason R Wickham

Location: Hall C (Ernest N. Morial Convention Center)

# Understanding CO2 mineralization and dissolution in deep saline aquifers: Exploring the impact of rock-fluid interaction on geophysical properties

(3988203) DIVISION: GEOC

Presenter(s): Aaditya Khanal

Location: Hall C (Ernest N. Morial Convention Center)

#### **HIST**

#### Development of 4-hexylresorcinol as an antiseptic

(3995429) DIVISION: HIST

Presenter(s): Alice Haddy

Location: Hall C (Ernest N. Morial Convention Center)

### Development of scientific enquiry: Alchemy, witchcraft, phlogiston, and nuclear bombs

(3997653) DIVISION: HIST

Presenter(s): Abigail H Shelton

Location: Hall C (Ernest N. Morial Convention Center)

### Die chemie ist schwierig: Winkler and the discovery of germanium

(3991409) DIVISION: HIST

Presenter(s): Charles Scott Weinert

Location: Hall C (Ernest N. Morial Convention Center)

### Dr. Henry Eyring and Dr. Taikyue Ree's collaboration and contribution to the chemistry of South Korea and the United States

(3997482) DIVISION: HIST

78 [HIST]

Presenter(s): Choon Ho Do

Location: Hall C (Ernest N. Morial Convention Center)

#### **Energetics analysis of medieval black powder**

(4000350) DIVISION: HIST

Presenter(s): Dawn Elizabeth Walla Riegner Location: Hall C (Ernest N. Morial Convention Center)

#### Generating and analyzing natural paints

(3995904) DIVISION: HIST

Presenter(s): Anna Lamm | Amy Millsap

Location: Hall C (Ernest N. Morial Convention Center)

#### **Kuhnian revolution in chemistry**

(3983414) DIVISION: HIST

Presenter(s): Benjamin Wicker

Location: Hall C (Ernest N. Morial Convention Center)

#### New London, Texas school explosion of 1937: History and legacy

(3981153) DIVISION: HIST

Presenter(s): Evan Terrell

Location: Hall C (Ernest N. Morial Convention Center)

### Primo Levi's undergraduate thesis on Walden inversion

(3985455) DIVISION: HIST

Presenter(s): Bart Evan Kahr

Location: Hall C (Ernest N. Morial Convention Center)

### Role of music in major discoveries in the history of chemistry

(3990627) DIVISION: HIST

Presenter(s): Timothy J Fuhrer

Location: Hall C (Ernest N. Morial Convention Center)

#### **I&EC**

### Aggregation-induced emission (AIE) organic metal halide complex scintillators

(3992679) DIVISION: I&EC

79 [I&EC]

Presenter(s): Tunde Blessed Shonde

Location: Hall C (Ernest N. Morial Convention Center)

#### Analysis of droplets from stain deposits on chemically coated cards

(3981857) DIVISION: I&EC

Presenter(s): Aaron Gieder

Location: Hall C (Ernest N. Morial Convention Center)

# Comparison of FPX66, HP20, Hp2mgl, SP70, SP207, SP700, Sp825l, and SP850 polymeric resins for extraction of phenolic antioxidants from aronia mitschurinii

(3992539) DIVISION: I&EC

Presenter(s): Ezra Cable

Location: Hall C (Ernest N. Morial Convention Center)

# Development of red cyanine dyes including a substituent with two methacrylate groups for color filters of virtual and augmented reality displays

(3977104) DIVISION: I&EC

Presenter(s): Woosung Lee | Young Ki Park Location: Hall C (Ernest N. Morial Convention Center)

# Enhancing oil recovery yield for in-situ upgrading of oil shale: bridging the gap from laboratory to on-site exploration

(3990885) DIVISION: I&EC

Presenter(s): Xianglong Meng

Location: Hall C (Ernest N. Morial Convention Center)

# Experimental and computational investigation of fluid flow and solid transport in split-and-recombine oscillatory flow reactors for organic chemistry in water

(3984659) DIVISION: I&EC

Presenter(s): Filippo Nanto

Location: Hall C (Ernest N. Morial Convention Center)

# Facile production of (+)-aristolochene and (+)-bicyclogermacrene in escherichia coli using newly discovered sesquiterpene synthases from penicillium expansum

(3976791) DIVISION: I&EC

Presenter(s): Zhengyu Huang Location: Virtual Session (Virtual Only)

80 [I&EC]

# Low-temperature hydrogen reduction of iron oxide (Fe2O3) using non-reducible support and palladium (Pd)

(3991990) DIVISION: I&EC

Presenter(s): Park Junhyeok | MinJae Kim | KyungJun Lee

Location: Hall C (Ernest N. Morial Convention Center)

# Miscibility assessment of compressor oils with low GWP next-generation refrigerants for enhanced sustainability Endevors in HVAC systems

(3995103) DIVISION: I&EC

Presenter(s): Andrea Hernandez Irias

Location: Hall C (Ernest N. Morial Convention Center)

### Next-Gen bionic cantilever sensors: Enhancing sensitivity and range inspired by scorpion trichobothria

(3994358) DIVISION: I&EC

Presenter(s): Changchao Zhang Location: Virtual Session (Virtual Only)

### Quantitative cathodoluminescence mapping to determine Cdmgsete compositional variation

(3985930) DIVISION: I&EC

Presenter(s): Melissa Wunch

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis, properties and application of choline Chloride+diethylene glycol deep eutectic solvent in drilling mud

(3979028) DIVISION: I&EC

Presenter(s): Mehrane Kermani nejad | Kamran Zohreie

Location: Virtual Session (Virtual Only)

# Unlocking potential of interfacial assembly: Universal fabrication method for aerogel beads

(3991295) DIVISION: I&EC

Presenter(s): Mahyar Panahi-Sarmad

Location: Hall C (Ernest N. Morial Convention Center)

81 [I&EC]

# Unrevealing the role of pyrochlore A2Ce2O7(La3+, Pr3+, Sm3+) carrier with different A site on supported Rh catalysts for n-hexadecane steam reforming performance

(3991525) DIVISION: I&EC

Presenter(s): Shuang Li | Yixiang Shi

Location: Hall C (Ernest N. Morial Convention Center)

#### Water filtration using glass sand

(3995964) DIVISION: I&EC

Presenter(s): Shehbaz Ahmad

Location: Hall C (Ernest N. Morial Convention Center)

#### **INOR**

#### Altering product selectivity for Ru-based CO2 reduction catalysts

(3994816) DIVISION: INOR

Presenter(s): Benjamin Dwyer

Location: Hall C (Ernest N. Morial Convention Center)

### Assessing state-interaction error in zero field splitting for actinide complexes

(3987291) DIVISION: INOR

Presenter(s): Nathan Roy Loutsch

Location: Hall C (Ernest N. Morial Convention Center)

### Discovery of new catalysts for epoxide hydrogenolysis

(3990493) DIVISION: INOR

Presenter(s): Jiayi Liu | Ryder Lathrop

Location: Hall C (Ernest N. Morial Convention Center)

### **Epoxide hydrogenolysis without product racemization**

(3990251) DIVISION: INOR

Presenter(s): Diane Kim | Abigail Bonino

Location: Hall C (Ernest N. Morial Convention Center)

# Exploring metastable bimetallic phosphide catalysts via cation exchange for renewable hydrogen production: A promising path to sustainable energy

(3988763) DIVISION: INOR

Presenter(s): Faria Sultana

Location: Hall C (Ernest N. Morial Convention Center)

#### High temperature reactions of Os3(CO)12 with benzotriazole and 1,2,3-triazole

(3996322) DIVISION: INOR

Presenter(s): Emily E Osborn

Location: Hall C (Ernest N. Morial Convention Center)

#### **High Voltage Composite Solid-State Cathode**

(3997662) DIVISION: INOR

Presenter(s): Lamartine Meda

Location: Hall C (Ernest N. Morial Convention Center)

# Incorporating active Cu sites on rare-earth metal-organic frameworks for catalytic CO2 conversion

(3985608) DIVISION: INOR

Presenter(s): Raphael Angelo Reyes

Location: Hall C (Ernest N. Morial Convention Center)

### Investigating iron and manganese thiospinels as catalysts for CO2 reduction reactions

(3995672) DIVISION: INOR

Presenter(s): Annabelle Claire Hannah

Location: Hall C (Ernest N. Morial Convention Center)

### IONiC VIPEr: When the snakes come marching in

(3980171) DIVISION: INOR

Presenter(s): Chip Nataro

Location: Hall C (Ernest N. Morial Convention Center)

### Iron oxide mediated solar decoupled electrolysis cycle

(3994362) DIVISION: INOR

Presenter(s): Sarah Hill

Location: Hall C (Ernest N. Morial Convention Center)

# Isolation of organic dyes in the pores of metal organic frameworks for protection from photodegradation

(3995197)

**DIVISION: INOR** 

Presenter(s): Christopher Breshike

Location: Hall C (Ernest N. Morial Convention Center)

### Molecular lanthanide superoxos of samarium, europium, thulium, and ytterbium

(3995162) DIVISION: INOR

Presenter(s): Ian Bartlett

Location: Hall C (Ernest N. Morial Convention Center)

# New electrochemistry for a clean energy future: Progress towards safe, environmentally sustainable non-topotactic batteries based on manganese oxide

(4003598) DIVISION: INOR

Presenter(s): Kenneth J Takeuchi | Amy C Marschilok Location: Hall C (Ernest N. Morial Convention Center)

## Organometallic cyclopentadienyl pyridazines, oxazines, and thiophenes and their applications in energy and advanced electronics

(3991114) DIVISION: INOR

Presenter(s): Nathan C Tice

Location: Hall C (Ernest N. Morial Convention Center)

# Photo- and electrocatalytic activity of an Fe(III) complex containing a chelating antipyrine ligand for the hydrogen evolution reaction

(3995492) DIVISION: INOR

Presenter(s): Amanda C Mitchell

Location: Hall C (Ernest N. Morial Convention Center)

### Photoinduced charge generation of host-guest MOF-fullerene systems as colloidal suspensions

(3988886) DIVISION: INOR

Presenter(s): Alison Arissa

Location: Hall C (Ernest N. Morial Convention Center)

### Probing the regioselectivity of nickel-catalyzed direct C-H arylation

(3989086) DIVISION: INOR

Presenter(s): Stella Kahn

Location: Hall C (Ernest N. Morial Convention Center)

### Rational choice of alkali metal counterions to modulate electronic and redox properties of Ce3+ imidophosphorane complexes

(3991045) DIVISION: INOR

Presenter(s): Chad Michael Studvick

Location: Hall C (Ernest N. Morial Convention Center)

### Sequestered ions: An investigation of Pyclen metal chelators and the Alzheimer's brain

(3989087) DIVISION: INOR

Presenter(s): Caroline Rae Crittell

Location: Hall C (Ernest N. Morial Convention Center)

### Silicon based negative electrodes: Progress towards high energy density secondary batteries

(4003589) DIVISION: INOR

Presenter(s): Edelmy Marin Bernardez

Location: Hall C (Ernest N. Morial Convention Center)

# Synthesis and characterization of a Zn(II) complex containing a chelating antipyrine ligand

(3995705) DIVISION: INOR

Presenter(s): Nicole A Fritsch

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis of a series of Cu bis(aryl)acenaphthenequinone diimine complexes

(3995016) DIVISION: INOR

Presenter(s): Daniel A Lopez-Espinosa

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis of photoactive manganese compounds with carbene ligands

(3997319) DIVISION: INOR

Presenter(s): William Tocco | Mirella Villani Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis of tripodal, multidentate CMPO compounds with long alkyl chains for f-element extractions

(3987636) DIVISION: INOR

Presenter(s): Brianna M Gordon | Nancy A Martinez Location: Hall C (Ernest N. Morial Convention Center)

# Synthesis, photophysical, and solid-state characterization of luminescent lanthanide ion complexes with phenanthroline-based ligands

(3994029) DIVISION: INOR

Presenter(s): Audrey Stemen

Location: Hall C (Ernest N. Morial Convention Center)

# Synthetic access to the Cuc site of particulate methane monooxygenase using peptide frameworks

(3977209) DIVISION: INOR

Presenter(s): Ronnie Richardson-Matthews Location: Hall C (Ernest N. Morial Convention Center)

### Templated bifunctional acid-base pairs in metal-organic framework pores for cooperative catalysis

(3988049) DIVISION: INOR

Presenter(s): Devin Rollins

Location: Hall C (Ernest N. Morial Convention Center)

#### **MEDI**

# Biological characterization of small molecule eIF4E inhibitors to assess their therapeutic potential in cancer

(3987526) DIVISION: MEDI

Presenter(s): Rachel O'Rourke

Location: Hall C (Ernest N. Morial Convention Center)

### Borrowing transcriptional kinases using chemically induced proximity

(3994612) DIVISION: MEDI

86 [MEDI]

Presenter(s): Basel Karim

Location: Hall C (Ernest N. Morial Convention Center)

#### Chemoproteomic-enabled identification of covalent modulators of KEAP1

(3996081) DIVISION: MEDI

Presenter(s): David S. Weinstein

Location: Hall C (Ernest N. Morial Convention Center)

#### Design and evaluation of new linkers in PROTACs

(3989615) DIVISION: MEDI

Presenter(s): Jessica Plescia

Location: Hall C (Ernest N. Morial Convention Center)

### Design and synthesis of N6-Hydroxyadenosine analogues as potential antiviral agents

(3980534) DIVISION: MEDI

Presenter(s): Qi Chen | Thomas Clark | Jenna Persson Location: Hall C (Ernest N. Morial Convention Center)

# Discovery of ASTT-06, a potent type 1 allosteric trapper of Poly (ADP-ribose) polymerase 1 (PARP1) for improved cancer treatment

(3988979) DIVISION: MEDI

Presenter(s): Tanaji T Talele

Location: Hall C (Ernest N. Morial Convention Center)

### Discovery of DS-9300: a highly potent, selective, and once-daily oral EP300/CBP histone acetyltransferase inhibitor

(3975197) DIVISION: MEDI

Presenter(s): Ryutaro Kanada

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring novel 1,2, 3-triazolium salts as potential biological agents

(3988202) DIVISION: MEDI

Presenter(s): Lance Crane | Jeremy Byrom

Location: Hall C (Ernest N. Morial Convention Center)

### Improving 3-HPT as a HDAC6 isoform selective inhibitor

(3978232)

87 [MEDI]

**DIVISION: MEDI** 

Presenter(s): Ryan Kern

Location: Hall C (Ernest N. Morial Convention Center)

# Inorganic/organic nanocomposite particle (I/O-NP) tracer design for magnetic particle imaging (MPI)

(3979270) DIVISION: MEDI

Presenter(s): Marco Giardiello

Location: Hall C (Ernest N. Morial Convention Center)

# Interactions of NCS proteins with doxorubicin/paclitaxel: a potential pathway for neurotoxic side-effects of anti-cancer drugs

(3986693)

**DIVISION: MEDI** 

Presenter(s): Md Shofiul Alam | Michael Reyes | Ezequiel Espinosa | Daniel Cuervo | Jaroslava

Miksovska

Location: Hall C (Ernest N. Morial Convention Center)

### Investigating PARP1/2 activity of piperazine ring surrogates and adenine-binding pocket motifs in AZD-9574

(3986061) DIVISION: MEDI

Presenter(s): Tanaji T Talele

Location: Hall C (Ernest N. Morial Convention Center)

### Mechanochemical routes towards New ethosuximide and lamotrigine formulations

(3991468) DIVISION: MEDI

Presenter(s): Lida Aeindartehran

Location: Hall C (Ernest N. Morial Convention Center)

### Modeling of broad-spectrum Virustatic and virucidal antivirals

(3997286) DIVISION: MEDI

Presenter(s): Francesco Coppola

Location: Hall C (Ernest N. Morial Convention Center)

# Optimization of anti-psychotic phenothiazines and phenoxazines as novel antifungal agents with reduced affinity towards neuroreceptors

(3988740) DIVISION: MEDI

88 [MEDI]

Presenter(s): Soumitra Guin

Location: Hall C (Ernest N. Morial Convention Center)

### Rapid, selective release of biologically active AA147 for targeted treatment of ischemia-reperfusion injury

(3990344) DIVISION: MEDI

Presenter(s): Noah Gilbertson

Location: Hall C (Ernest N. Morial Convention Center)

# Reductions of food intake and body weight in diet-induced obese rats following chronic treatment with monomeric peptide multiagonists

(3988417) DIVISION: MEDI

Presenter(s): Emily Ashlaw

Location: Hall C (Ernest N. Morial Convention Center)

# Simultaneous activation of immunogenic cell death and Cgassting pathway by liver- and mitochondria-targeted gold(I) complexes for immunotherapy of hepatocellular carcinoma

(3977828) DIVISION: MEDI

Presenter(s): Wukun Liu

Location: Virtual Session (Virtual Only)

#### **NUCL**

### 225Ac radiolabeling and biological studies of novel pancreatic monoclonal antibodies

(3995610) DIVISION: NUCL

Presenter(s): Vanessa Anne Sanders

Location: Hall C (Ernest N. Morial Convention Center)

### 89Zr-immunoPET targeting IL13Ra2 for imaging of glioblastoma

(3986781) DIVISION: NUCL

Presenter(s): Leah Gajecki

Location: Hall C (Ernest N. Morial Convention Center)

### Covalent triazine frameworks for the separation of lanthanides and actinides

(3995952) DIVISION: NUCL

89 [NUCL]

Presenter(s): James Anthony Gaugler

Location: Hall C (Ernest N. Morial Convention Center)

#### Effect of gamma irradiation on efficacy of extraction chromatography materials

(3997659) DIVISION: NUCL

Presenter(s): Rebecca Jane Mueller

Location: Hall C (Ernest N. Morial Convention Center)

### Evaluation, post-elution processing, and radiolabeling of an upscaled SnO2-based 44ti/44sc generator

(3989224) DIVISION: NUCL

Presenter(s): Christine Elizabeth Schmidt

Location: Hall C (Ernest N. Morial Convention Center)

#### New approach to 44Ti/44Sc generator design

(3978205) DIVISION: NUCL

Presenter(s): Shelbie Cingoranelli

Location: Hall C (Ernest N. Morial Convention Center)

# o-(Sulfonamido)phenol ligands as f-element extractants for combined Cs and actinide separations in caustic high-level waste

(3989644) DIVISION: NUCL

Presenter(s): Leigh D. Ruddock

Location: Hall C (Ernest N. Morial Convention Center)

# Radiochemical synthesis of novel demyelination PET tracer [18F]5-methyl-3-fluoro-4-aminopyridine via Csp2-18F/19F exchange

(3986818) DIVISION: NUCL

Presenter(s): Yang Sun

Location: Hall C (Ernest N. Morial Convention Center)

# Radiosynthesis and evaluation of a novel 18F labeled PET ligand for imaging monoacylglycerol lipase

(3991987) DIVISION: NUCL

Presenter(s): Yinlong Li

Location: Hall C (Ernest N. Morial Convention Center)

90 [NUCL]

# Synthesis of 18F-alkyl fluorides via the photoredox mediated nucleophilic radiofluorination of a novel class of precursors in radiochemistry

(3991063) DIVISION: NUCL

Presenter(s): Sebastiano Ortalli

Location: Hall C (Ernest N. Morial Convention Center)

#### **ORGN**

#### "Spiro-sandwich" ligands for insertion polymerization

(3994273)

**DIVISION: ORGN** 

Presenter(s): Wenjun Hou

Location: Hall C (Ernest N. Morial Convention Center)

### A fluorescent sensor array from functionalized calixarenes and lanthanide salts for anion detection

(3996664)

**DIVISION: ORGN** 

Presenter(s): Nicola Edwards

Location: Hall C (Ernest N. Morial Convention Center)

#### Applications of acetal radicals: 1-2 diol coupling

(3993837)

**DIVISION: ORGN** 

Presenter(s): Misato Okamoto

Location: Hall C (Ernest N. Morial Convention Center)

### Applications of masked acyl cyanides - bridging synthesis and computational chemistry

(3995179)

**DIVISION: ORGN** 

Presenter(s): Julie Alana Pigza

Location: Hall C (Ernest N. Morial Convention Center)

### Asymmetric Giese additions employing chiral acylammonium sSalts

(3998098)

**DIVISION: ORGN** 

Presenter(s): Kristiana L Kasper

Location: Hall C (Ernest N. Morial Convention Center)

### Benzylic amination by Ritter-type reaction via Mesolytic cleavage

(3994788)

**DIVISION: ORGN** 

Presenter(s): Justin Alvarez

Location: Hall C (Ernest N. Morial Convention Center)

### C(sp3) - C(sp3) bond formations and macrocyclizations via hypervalent iodine reagents

(3997041) DIVISION: ORGN

Presenter(s): Joshuah G Tavarez

Location: Hall C (Ernest N. Morial Convention Center)

### Carbon-carbon bond activation: Optimization and investigation of exchangedecarbonylation reaction of diortho-fluoro pyridyl ketone with boronic acids

(3989633) DIVISION: ORGN

Presenter(s): Therese A Joffre

Location: Hall C (Ernest N. Morial Convention Center)

#### Catalytic reduction of pyridinium cations with metal hydrides

(3989075)

**DIVISION: ORGN** 

Presenter(s): Jin Qian

Location: Hall C (Ernest N. Morial Convention Center)

### Cocrystallization by halogen bonding to heterocyclic $\pi$ -systems

(3994382)

**DIVISION: ORGN** 

Presenter(s): Toni Sera Spilfogel

Location: Hall C (Ernest N. Morial Convention Center)

# Computational analysis of C-tail functionalized pyrogallol[4]arenes and resorcin[4]arenes as models for future host-guest investigations

(3984503)

**DIVISION: ORGN** 

Presenter(s): Olivia K Meyer

Location: Hall C (Ernest N. Morial Convention Center)

### Computational studies of iron-catalyzed $\alpha$ -amination of carboxylic acids

(3993026)

**DIVISION: ORGN** 

Presenter(s): Marisa Ih

Location: Hall C (Ernest N. Morial Convention Center)

### Conical carbon nanobelts: Exploring new rigid connectivity in large tubularenes

(3988213)

**DIVISION: ORGN** 

Presenter(s): Mohammad Bilal

Location: Hall C (Ernest N. Morial Convention Center)

### Conversion of levulinic acid to γ-valerolactone using an iridium nanocomposite under mild conditions

(3997348)

**DIVISION: ORGN** 

Presenter(s): Marisa Spengeman

Location: Hall C (Ernest N. Morial Convention Center)

## Design and application of palladium-acyl precatalysts for use in amination reactions with aryl chlorides

(3989048)

**DIVISION: ORGN** 

Presenter(s): Makynna Rose Koper

Location: Hall C (Ernest N. Morial Convention Center)

### Design of novel sustainable pathways for the synthesis of the key intermediates of nirmatrelvir

(3979104)

**DIVISION: ORGN** 

Presenter(s): David Daggett

Location: Hall C (Ernest N. Morial Convention Center)

### Developing a novel Napyradiomycin synthesis by employing newly established biomimetic haliranium-induced polyene cyclizations

(3982833)

**DIVISION: ORGN** 

Presenter(s): Martin Kretzschmar

Location: Hall C (Ernest N. Morial Convention Center)

### Development & scope of the microwave-assisted anti-Markovnikov Hydrosulfonamidation of 2-Vinylpyridine derivatives

(3991103)

**DIVISION: ORGN** 

Presenter(s): Danielle L. Jacobs

Location: Hall C (Ernest N. Morial Convention Center)

### Diastereoselective reduction of sulfinamides using Schwartz reagent

(3991104)

**DIVISION: ORGN** 

Presenter(s): Athenea Aloiau | Bri Bobek | Kelly Pearson

Location: Hall C (Ernest N. Morial Convention Center)

### Directed evolution of cytochrome P450 towards biocatalysts in natural product synthesis

(3989744) DIVISION: ORGN

Presenter(s): Schaelee Christine Guy

Location: Hall C (Ernest N. Morial Convention Center)

#### Discovering new chemical pathways for the synthesis of complex carbacycles

(3986173)

**DIVISION: ORGN** 

Presenter(s): Gustavo Moura-Letts

Location: Hall C (Ernest N. Morial Convention Center)

# Diversifying Birch reaction quaternary center synthesis via nucleophilic aromatic substitution reactions or decarboxylative cross coupling

(3985559)

**DIVISION: ORGN** 

Presenter(s): Lana Giha

Location: Hall C (Ernest N. Morial Convention Center)

#### DNA-templated click chemistry for the synthesis of functional mini-proteins

(3976872)

**DIVISION: ORGN** 

Presenter(s): Md Al-Amin

Location: Hall C (Ernest N. Morial Convention Center)

### Efforts toward the total synthesis of Balgacyclamide C

(3990745)

**DIVISION: ORGN** 

Presenter(s): Meghan Hope Rice

Location: Hall C (Ernest N. Morial Convention Center)

### Electrochemical reduction of CO2 into different useful products by using Mxenebased catalysts: Advances, challenges, and future prospects

(3976084)

**DIVISION: ORGN** 

Presenter(s): Samia Arain

Location: Hall C (Ernest N. Morial Convention Center)

### Enantioselective Mannich reactions of ketones catalyzed by new 1,3-diaminederived catalysts

(3976783)

**DIVISION: ORGN** 

Presenter(s): James Osborne

Location: Hall C (Ernest N. Morial Convention Center)

#### **Evolving biocatalysts for the enantioselective synthesis of spirocycles**

(3981877)

**DIVISION: ORGN** 

Presenter(s): Catherine Ko

Location: Hall C (Ernest N. Morial Convention Center)

### Examining the effect of aromatic substituents in peptoid catalysts of stereoselective trifluoromethylation

(3993542)

**DIVISION: ORGN** 

Presenter(s): Daniel Chi

Location: Hall C (Ernest N. Morial Convention Center)

#### **Exploring new methods for redox gold catalysis**

(3979516)

**DIVISION: ORGN** 

Presenter(s): Grace Boden

Location: Hall C (Ernest N. Morial Convention Center)

# Exploring the effectiveness of directing groups for rhodium-catalyzed decarbonylation

(3988731)

**DIVISION: ORGN** 

Presenter(s): Bryan Forrest

Location: Hall C (Ernest N. Morial Convention Center)

# Free-alcohol-directed C(sp3)-H activation enabled by hydrogen-bond-acceptor ligands

(3985651)

**DIVISION: ORGN** 

Presenter(s): Chia-Yu Chen

Location: Hall C (Ernest N. Morial Convention Center)

### Greening and diversifying a pyridine cyclization cascade

(3990964)

**DIVISION: ORGN** 

Presenter(s): Tanner K Gasteazoro | Luke N Stemple Location: Hall C (Ernest N. Morial Convention Center)

#### Highly efficient bimetallic palladium catalyst in the aryl amination reaction

(3996443)

**DIVISION: ORGN** 

Presenter(s): James Corey

Location: Hall C (Ernest N. Morial Convention Center)

#### Investigating the borylation of indoles

(3995427)

**DIVISION: ORGN** 

Presenter(s): Ayesha Begum

Location: Hall C (Ernest N. Morial Convention Center)

#### Mechanistic study of the iron-catalyzed oxidative $\alpha$ -amination of ketones

(3977805)

**DIVISION: ORGN** 

Presenter(s): Nina Hollin | Gloria Parrales

Location: Hall C (Ernest N. Morial Convention Center)

#### Metal-catalyzed atroposelective cross-electrophile coupling of aryl halides

(3990155)

**DIVISION: ORGN** 

Presenter(s): Lebogang Kgoadi

Location: Hall C (Ernest N. Morial Convention Center)

### Metal-catalyzed synthetic approaches toward 1,2-cis-2-amino sugars

(3995355)

**DIVISION: ORGN** 

Presenter(s): Aaliyah Alcibar

Location: Hall C (Ernest N. Morial Convention Center)

## Microwave-assisted on-water green synthesis of trifluoromethylspiroindolinopyranopyrazoles

(3991649)

**DIVISION: ORGN** 

Presenter(s): Debasish Bandyopadhyay

Location: Hall C (Ernest N. Morial Convention Center)

### Mild, green acylation of carbon nucleophiles using TCFH-NMI

(3990962)

**DIVISION: ORGN** 

Presenter(s): Sydney D Neibert

Location: Hall C (Ernest N. Morial Convention Center)

### Multigram scale synthesis of Rawal's diene and its utility in oxo-Diels-Alder reaction

(3997357) DIVISION: ORGN

Presenter(s): Dmitriy Volochnyuk

Location: Hall C (Ernest N. Morial Convention Center)

### New directions for an old reaction: A Curtius rearrangement driven Dehomologation from carboxylic acids to aldehydes and ketones

(3995567)

**DIVISION: ORGN** 

Presenter(s): Joy Odeh

Location: Hall C (Ernest N. Morial Convention Center)

#### New redox-active ligand for programmable catalysis

(3995058)

**DIVISION: ORGN** 

Presenter(s): Nicholle Chew

Location: Hall C (Ernest N. Morial Convention Center)

### Nonphotoredox decarboxylative cross-electrophile coupling of (hetero)aromatic bromides and NHP esters

(3983013)

**DIVISION: ORGN** 

Presenter(s): Matthew Dowling | Simon Berritt Location: Hall C (Ernest N. Morial Convention Center)

### N-Sulfonyliminium ions as reactive intermediates for the stereochemically controlled synthesis of multi-substituted piperidines

(3996969)

**DIVISION: ORGN** 

Presenter(s): Matthew G Donahue

Location: Hall C (Ernest N. Morial Convention Center)

# Optimization and mechanistic investigation of the synthesis of unprotected, 4-substituted-1H-pyrazoles

(3997261)

**DIVISION: ORGN** 

Presenter(s): James Ley | Gabriela Simon

Location: Hall C (Ernest N. Morial Convention Center)

### Optimizing the synthesis of massiliamide, a cyclic tetrapeptide, and analogues

(3996866)

**DIVISION: ORGN** 

Presenter(s): Saga Vallow

Location: Hall C (Ernest N. Morial Convention Center)

### Origins of regioselectivity in Pd-catalyzed hydrodefluorination of gemdifluorocyclopropanes

(3991438)

**DIVISION: ORGN** 

Presenter(s): Zachary Cheng

Location: Hall C (Ernest N. Morial Convention Center)

# para-substituted methoxyphenyl carbenium: Synthesis, properties and applications

(3993074)

**DIVISION: ORGN** 

Presenter(s): Tarek El Assaad

Location: Hall C (Ernest N. Morial Convention Center)

#### Photo-responsive molecular shuttles operating in lipid membranes

(3980279)

**DIVISION: ORGN** 

Presenter(s): Udyogi Conthagamage

Location: Hall C (Ernest N. Morial Convention Center)

### Polystyrene upcycling via visible light photocatalysis

(3990027)

**DIVISION: ORGN** 

Presenter(s): Justin Zheng | William Cheung Location: Hall C (Ernest N. Morial Convention Center)

### Reagent- and catalyst-enabled borylation of C-H bonds

(3993100)

**DIVISION: ORGN** 

Presenter(s): Kyan A D'Angelo

Location: Hall C (Ernest N. Morial Convention Center)

# Structural, thermodynamic and spectral characteristics and the nature of bonding in the complexes of tetracyanoethylene with anions

(3986775)

**DIVISION: ORGN** 

Presenter(s): Favour Ebimobere Odubo

Location: Hall C (Ernest N. Morial Convention Center)

### Superacid promoted synthesis of imidazole and benzimidazole containing spirocycles

(3989826)

**DIVISION: ORGN** 

Presenter(s): Jeffrey Ferreira

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis and conformational analysis of 26-atom macrocycles that adopt a $\beta$ -sheet structure

(3989758)

**DIVISION: ORGN** 

Presenter(s): Lola Kouretas

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis and stabalization of Spirolactams using hypervalent iodine

(3996915)

**DIVISION: ORGN** 

Presenter(s): Samantha Meehan

Location: Hall C (Ernest N. Morial Convention Center)

# Synthesis expansion and limitations of Pyridoimidazolium cation formation using Vilsmeier Haack reagent

(3990339)

**DIVISION: ORGN** 

Presenter(s): Abigail Faith Browning | Hunter Scott Mitchell | Abigail Grace Roberts

Location: Hall C (Ernest N. Morial Convention Center)

# Synthesis of 2-azabicyclo[2.1.0]pentane-5-carboxylic acid: A novel conformationally restricted $\beta$ -proline analogue

(3996560)

**DIVISION: ORGN** 

Presenter(s): Sergey Ryabukhin

Location: Hall C (Ernest N. Morial Convention Center)

## Synthesis of 3-chlorobenzo[b]thiophenes via copper-catalyzed electrophilic cyclization reactions

(3997600)

**DIVISION: ORGN** 

Presenter(s): Peyton Stalcup | Georgia Ness Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis of Ariamazole, a promising benzimidazole for therapeutics

(3990510)

**DIVISION: ORGN** 

Presenter(s): Ariana Martinez-Alamo

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis of nitrogen-containing spirocycles via superacid reactions of imines

(3990929)

**DIVISION: ORGN** 

Presenter(s): Mariam Mutiu-Adebayo

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis of rupestines H and I

(3987988)

**DIVISION: ORGN** 

Presenter(s): Aimee Long

Location: Hall C (Ernest N. Morial Convention Center)

# Synthesis of switchable fluorescent probes to quantify bacterial membrane potential

(3994026)

**DIVISION: ORGN** 

Presenter(s): Jullyane Emi Matsushima

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesizing a carboxylate carbene

(3997321)

**DIVISION: ORGN** 

Presenter(s): Kenna L. White

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesizing cyclopropenium derivatives for applications in aqueous redox flow batteries

(3979602)

**DIVISION: ORGN** 

Presenter(s): Audrey Farrell

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthetic efforts towards reniochalistatin E derivatives for drug delivery

(3996808)

**DIVISION: ORGN** 

Presenter(s): Matthew Barnett

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthetic reactions using a 3-D printed acid catalyst

(3991358)

**DIVISION: ORGN** 

Presenter(s): Jacob Hood

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthetic strategies towards fusicoccane diterpenoids

(3993844)

**DIVISION: ORGN** 

Presenter(s): Doyal Trey Henderson

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthetic studies towards the enantioselective total synthesis of (-)-Alterbrassicicene B

(3999512)

**DIVISION: ORGN** 

Presenter(s): Weston Bonnet

Location: Hall C (Ernest N. Morial Convention Center)

### Thermal stability, kinetics, and anion binding capabilities of hypervalent iodinebased macrocycle

(3983108)

**DIVISION: ORGN** 

Presenter(s): Samsul Arafin

Location: Hall C (Ernest N. Morial Convention Center)

# Using a lipophilicity differential to drive cage-assisted transportation of molecular cargo across an aqueous membrane

(3991075)

**DIVISION: ORGN** 

Presenter(s): Kristina Sandiford

Location: Hall C (Ernest N. Morial Convention Center)

### Using a packed-column gas chromatograph as a fixed-bed reactor

(3996842)

**DIVISION: ORGN** 

Presenter(s): Mark M Wilson

Location: Hall C (Ernest N. Morial Convention Center)

# Versatile hydrogen isotope exchange (HIE) of aromatic compounds in microstructured, fluorinated environments

(3986353)

**DIVISION: ORGN** 

Presenter(s): Jonathan Lebelt

Location: Hall C (Ernest N. Morial Convention Center)

#### **PHYS**

#### Alkane phosphonic acid self-assembled monolayers on indium-tin oxide

(3986654) DIVISION: PHYS

Presenter(s): Emily Piner

Location: Hall C (Ernest N. Morial Convention Center)

### Ambient STM visualization of self-assembled Cyclopentadienylmolybdenum(ii) tricarbonyl dimers

(3985722) DIVISION: PHYS

Presenter(s): Yen-Chen Chen

Location: Hall C (Ernest N. Morial Convention Center)

# Anthraquinone radical anions and their chlorinated derivatives: A combined solution phase Cylic voltammetry and gas phase negative ion photoelectron spectroscopic study

(3992115) DIVISION: PHYS

Presenter(s): Nolan White

Location: Hall C (Ernest N. Morial Convention Center)

### Applying infrared spectroscopy to characterise the structure and form of pharmaceutical cocrystals

(3981393)

**DIVISION: PHYS** 

Presenter(s): Ramandeep Singh Singh Dosanjh Location: Hall C (Ernest N. Morial Convention Center)

# Assessing modulations of molecular properties under cavity polariton formation using angle-resolved photoluminescence excitation spectroscopy

(3994095)

**DIVISION: PHYS** 

Presenter(s): Elizabeth O Odewale

Location: Hall C (Ernest N. Morial Convention Center)

### Ballistic energy transport via long alkyl chains: A new initiation mechanism

(3990569) DIVISION: PHYS

Presenter(s): Sithara U Nawagamuwage

Location: Hall C (Ernest N. Morial Convention Center)

#### Binding of SO3 to group 4 transition metal oxide nanoclusters

(3986830) DIVISION: PHYS

Presenter(s): Nickolas Andrew Joyner

Location: Hall C (Ernest N. Morial Convention Center)

# Biosorption of Cd(II) from solution using cashew (Anacardium occidentale) leaf: Kinetics, equilibrium, and thermodynamics

(3975526) DIVISION: PHYS

Presenter(s): Seyi Bowale Adekoya

Location: Hall C (Ernest N. Morial Convention Center)

#### Blackbody infrared radiative dissociation under vibrational strong coupling

(3995779) DIVISION: PHYS

Presenter(s): Enes Suyabatmaz

Location: Hall C (Ernest N. Morial Convention Center)

# Broadband microscopic inquiry of the excited state structure function relationship in diattenuating perylene diimide materials

(3990831) DIVISION: PHYS

Presenter(s): Skyler R Hollinbeck

Location: Hall C (Ernest N. Morial Convention Center)

### Calculated aqueous reduction potentials of X, OX, and HCh radicals where X = halogen and Ch = chalcogen

(3986762) DIVISION: PHYS

Presenter(s): Thomas Andress

Location: Hall C (Ernest N. Morial Convention Center)

### CDs quantum dot gel as a direct hydrogen-atom transfer photocatalyst for c(sp3)-H functionalization

(3985880) DIVISION: PHYS

Presenter(s): Daohua Liu

Location: Hall C (Ernest N. Morial Convention Center)

### Clock microscopy: Embedding additional information in optical images of single nanoparticles

(3987543) DIVISION: PHYS

Presenter(s): Zachary James O'Dell | Megan Knobeloch

Location: Hall C (Ernest N. Morial Convention Center)

### Coacervate-based plexcitonic assembly toward peroxidase-like activity and ultrasensitive glucose sensing

(3985391) DIVISION: PHYS

Presenter(s): Shivendra Singh

Location: Hall C (Ernest N. Morial Convention Center)

### Computational 2D IR spectroscopy of ester-mutated model ion channels, KcsA and NaK2K

(3983550) DIVISION: PHYS

Presenter(s): Eshani Goonetilleke

Location: Hall C (Ernest N. Morial Convention Center)

### Computational and experimental view of the photoionization of diol water clusters

(3989321) DIVISION: PHYS

Presenter(s): Anna Wannenmacher

Location: Hall C (Ernest N. Morial Convention Center)

### Cutting through the noise: Extracting dynamics from ultrafast spectra using dynamic mode decomposition

(3986523) DIVISION: PHYS

Presenter(s): Cong Xu

Location: Hall C (Ernest N. Morial Convention Center)

### Dielectric properties of liquids confined in atomically thin nanochannels

(3987339) DIVISION: PHYS

Presenter(s): Mordjann Hind Souilamas

Location: Hall C (Ernest N. Morial Convention Center)

### DNA-Gemini surfactant interactions: Sequence and environmental effects

(3989046)

**DIVISION: PHYS** 

Presenter(s): Derek Aguilar | Richard Dean Sheardy Location: Hall C (Ernest N. Morial Convention Center)

#### Dynamics of the acoustic vibrations of gold nanoplates

(3984100) DIVISION: PHYS

Presenter(s): Cameron Wright

Location: Hall C (Ernest N. Morial Convention Center)

### Effect of chain length on the physiochemical properties of perfluoroalkyl substances at the surface of water

(3984497) DIVISION: PHYS

Presenter(s): Lindsey D Jenkins

Location: Hall C (Ernest N. Morial Convention Center)

# Effect of lithium salt on fluorescence quenching in glycerol: A comparison with ionic liquid/deep eutectic solvent

(3979053) DIVISION: PHYS

Presenter(s): Manish Kumar

Location: Hall C (Ernest N. Morial Convention Center)

### Enhanced chemical gating in single-molecule junctions by Fano resonance

(3987448) DIVISION: PHYS

Presenter(s): Wanzhuo Shi

Location: Hall C (Ernest N. Morial Convention Center)

### Excited-state dynamics of visible and near-IR fluorescent dyes

(3995297) DIVISION: PHYS

Presenter(s): Nicholas Kruse

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring the interactions between antifreeze proteins and lipid membranes

(3983482) DIVISION: PHYS

Presenter(s): Emily Vernon

Location: Hall C (Ernest N. Morial Convention Center)

# Flicker noise analysis of single molecule break junction data shows complex oligoyne molecular wire features

(3989808) DIVISION: PHYS

Presenter(s): James Michael francis Morris

Location: Hall C (Ernest N. Morial Convention Center)

# High-temperature alumina-hafnia nanolaminated insulators for thermionic energy conversion

(3976722) DIVISION: PHYS

Presenter(s): Danielle Levin

Location: Hall C (Ernest N. Morial Convention Center)

# Influence of electronic coupling in the proton-coupled electron transfer of Phenylenediamines

(3977524) DIVISION: PHYS

Presenter(s): Joseph Bergen | Giovanny A Parada Location: Hall C (Ernest N. Morial Convention Center)

#### Infrared spectra of carbocations in quantum fluids

(3985815) DIVISION: PHYS

Presenter(s): Sofie Allison

Location: Hall C (Ernest N. Morial Convention Center)

### Integrating quantum decoherence within Ehrenfest: A paradigm for multistate dynamics

(3990225) DIVISION: PHYS

Presenter(s): Fangchun Liang

Location: Hall C (Ernest N. Morial Convention Center)

### Investigating physical properties of disaccharide-based deep eutectic solvents

(3987906) DIVISION: PHYS

Presenter(s): Jenna Nicole Lipani

Location: Hall C (Ernest N. Morial Convention Center)

### Investigating strong coupling between silicon quantum dots and acene triplet states

(3998875) DIVISION: PHYS

Presenter(s): Maryam Baraazandeh

Location: Hall C (Ernest N. Morial Convention Center)

# Low and high frequency vibrations synergistically enhance singlet exciton fission through robust vibronic resonances

(3976786) DIVISION: PHYS

Presenter(s): Atandrita Bhattacharyya

Location: Hall C (Ernest N. Morial Convention Center)

#### Low-frequency spectra of hydrated ionic liquids: Concentration dependence

(3989550) DIVISION: PHYS

Presenter(s): Maharoof Koyakkat

Location: Hall C (Ernest N. Morial Convention Center)

#### Mechanism of non-Kasha fluorescence in pyrene

(3992011)

**DIVISION: PHYS** 

Presenter(s): Sourav Majumdar

Location: Hall C (Ernest N. Morial Convention Center)

#### Microplastics as ice nucleating particles in the atmosphere

(3987560) DIVISION: PHYS

Presenter(s): Heidi L Busse

Location: Hall C (Ernest N. Morial Convention Center)

### Mixed micelle formation by sodium dodecylsulfate and dodecyltrimethylammonium bromide in aqueous ionic liquid media

(3980997)
DIVISION: PHYS
Presenter(s): Anjali.

Location: Hall C (Ernest N. Morial Convention Center)

### Modelling extraterrestrial photopigments via density-functional theory: Importance and challenges

(3987575) DIVISION: PHYS

Presenter(s): Dorothea Illner

Location: Hall C (Ernest N. Morial Convention Center)

# Multicomponent Cholesky decomposition: Application to nuclear-electronic orbital theory

(3984693) DIVISION: PHYS

Presenter(s): Aodong Liu

Location: Hall C (Ernest N. Morial Convention Center)

# Nonadiabatic nuclear dynamics with strong light-matter interactions in quantum transport: Floquet frictional effects, Lorentz-like forces, and spin selectivity

(3980897) DIVISION: PHYS

Presenter(s): Jingqi Chen

Location: Hall C (Ernest N. Morial Convention Center)

#### Observation of vibronic signatures in 2DIR of TCNQ

(3995763) DIVISION: PHYS

Presenter(s): Ranadeb Ball

Location: Hall C (Ernest N. Morial Convention Center)

# Osmotic force balance and chemical potentials: Keys to an accurate determination of osmotic pressure for monovalent ions

(3987252) DIVISION: PHYS

Presenter(s): Alireza Hosseini

Location: Hall C (Ernest N. Morial Convention Center)

### Photo-chemical dynamics with the coupled trajectories CTMQC method: Theme and variations

(3989378) DIVISION: PHYS

Presenter(s): Evaristo Villaseco Arribas

Location: Hall C (Ernest N. Morial Convention Center)

### Photooxidation driven formation of Fe-Au linked ferrocene-based single-molecule junctions

(3981093) DIVISION: PHYS

Presenter(s): Woojung Lee

Location: Hall C (Ernest N. Morial Convention Center)

### Predicting the properties of early actinide fluorides from advanced electronic structure methods

(3986804) DIVISION: PHYS

Presenter(s): Jackson W Maxwell

Location: Hall C (Ernest N. Morial Convention Center)

### Probing hydrophobic region of a lipid bilayer at specific depth using vibrational spectroscopy

(3996253) DIVISION: PHYS

Presenter(s): Md Muhaiminul Islam

Location: Hall C (Ernest N. Morial Convention Center)

#### Proton tunneling in the complex of 3,4,5-trifluorobenzoic acid and formic acid

(3983666) DIVISION: PHYS

Presenter(s): Alitza Gracia

Location: Hall C (Ernest N. Morial Convention Center)

### Quantifying the role of intermolecular interactions on tunneling transport in molecular junctions

(3979729) DIVISION: PHYS

Presenter(s): Gookyeong Jeong

Location: Hall C (Ernest N. Morial Convention Center)

# Quantitative comparison of recombination rates of core/shell quantum dots in colloidal solutions and self-assembled monolayer superlattices

(3982619) DIVISION: PHYS

Presenter(s): Rafaela Mendes Brinn

Location: Hall C (Ernest N. Morial Convention Center)

### Quantum chemical and kinetic studies of gas-phase $\alpha$ -pinene ozonolysis with stereochemical emphasis

(3983144) DIVISION: PHYS

Presenter(s): Clarence L Pan

Location: Hall C (Ernest N. Morial Convention Center)

### Real-time mapping of transient electric dipole moments by terahertz Stark spectroscopy

(3986352) DIVISION: PHYS

Presenter(s): Poonam Singh

Location: Hall C (Ernest N. Morial Convention Center)

# Reliable and simple computational method for the characterization of complex molecular systems using IR spectroscopy

109 [PHYS]

(3986582) DIVISION: PHYS

Presenter(s): Laura X Sepulveda

Location: Hall C (Ernest N. Morial Convention Center)

### Study of pyrolysis products by methods based on molecular beam and pulsed laser heating approaches

(3981009) DIVISION: PHYS

Presenter(s): Valeriia Karpovych

Location: Hall C (Ernest N. Morial Convention Center)

#### Suppressing excitonic disorder using molecular cavity polariton formation

(3982218) DIVISION: PHYS

Presenter(s): Sachithra T. Wanasinghe

Location: Hall C (Ernest N. Morial Convention Center)

### Surface-enhanced Raman spectroscopy and deep learning for bacterial wastewater monitoring

(3978967) DIVISION: PHYS

Presenter(s): Liam Kai Herndon

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis and characterization of Na-doped Zn2GeO4 optical fibers

(3985194) DIVISION: PHYS

Presenter(s): Emelie Cintron

Location: Hall C (Ernest N. Morial Convention Center)

#### Synthesis and photophysics of highly electron-deficient porphyrin oligomers

(3985950) DIVISION: PHYS

Presenter(s): Victoria Cinnater

Location: Hall C (Ernest N. Morial Convention Center)

### Theoretical study of the gas phase reaction of OH radical with cyclopentenone derivatives

(3994892) DIVISION: PHYS

Presenter(s): Emmanuel Ubana

Location: Hall C (Ernest N. Morial Convention Center)

110 [PHYS]

#### Theory of chemical equilibrium under vibrational strong coupling

(3995566) DIVISION: PHYS

Presenter(s): Kaihong Sun

Location: Hall C (Ernest N. Morial Convention Center)

### Tuning electronic coupling in silicon quantum dot-molecular hybrid systems via the binding bridge for photon upconversion

(3990018) DIVISION: PHYS

Presenter(s): Kefu Wang

Location: Hall C (Ernest N. Morial Convention Center)

# Two state reactivity (TSR) and hydrogen tunneling reaction kinetics measured in the Co+ mediated decomposition of CH3CHO

(3987891) DIVISION: PHYS

Presenter(s): Tucker Lewis

Location: Hall C (Ernest N. Morial Convention Center)

### Ultrafast plasmon-induced hot-electron transfer process in epitaxial noble metal-semiconductor heterostructures

(3994648) DIVISION: PHYS Presenter(s): Li Zhai

Location: Hall C (Ernest N. Morial Convention Center)

#### Understanding electron transport in metalloproteins

(3987033) DIVISION: PHYS

Presenter(s): Jitong Ren

Location: Hall C (Ernest N. Morial Convention Center)

#### Unveiling the roles of nanoconfined water in enhancing interfacial reactions

(3987161) DIVISION: PHYS

Presenter(s): Tianhao Tang

Location: Hall C (Ernest N. Morial Convention Center)

#### **PMSE**

#### 3D printed cellulose nanocrystal coatings with infra-red reflectance: Continuous to discrete chiral films

(3996793) DIVISION: PMSE

Presenter(s): Botyo Dimitrov

Location: Hall C (Ernest N. Morial Convention Center)

#### 3D printed porous tantalum oxide Scafold for orthopedic implants

(3995215) DIVISION: PMSE

Presenter(s): Mian Sami Mudassir

Location: Hall C (Ernest N. Morial Convention Center)

### Accuracy of a computational model to predict 3D printed copolymer biliary stent behavior

(3986424)

**DIVISION: PMSE** 

Presenter(s): Ainsley Westbrook

Location: Hall C (Ernest N. Morial Convention Center)

# Additive manufacturing of polymer-derived ceramics with novel thermal NIR laser stereolithography

(3982430)

DIVISION: PMSE

Presenter(s): Evelyn Wang

Location: Hall C (Ernest N. Morial Convention Center)

### Advancing cartilage repair: A biomimetic approach with guar gum, chitosan, and polyether ether ketone based scaffold

(3991804)

**DIVISION: PMSE** 

Presenter(s): Muhammad Hussain Abdullah Location: Hall C (Ernest N. Morial Convention Center)

#### Aggregation Behavior of Current Doped Poly(3-hexylthiophene)

(3989717)

**DIVISION: PMSE** 

Presenter(s): Evan Gibson

Location: Hall C (Ernest N. Morial Convention Center)

# Altering the microstructure of a proton exchange membrane via manipulating its ion exchange capacity through polymer blending

(3995120)

**DIVISION: PMSE** 

Presenter(s): Andrew White

Location: Hall C (Ernest N. Morial Convention Center)

# Antimicrobial polymer-based coating against non-enveloped MS2 bacteriophage: virucidal efficiency and potential inactivation mechanism

(3991217) DIVISION: PMSE

Presenter(s): Leslie Anne Lopez Yasis

Location: Hall C (Ernest N. Morial Convention Center)

### Applying group interaction modelling: Quantitative connection between polymer structure and properties

(3989588) DIVISION: PMSE

Presenter(s): Ke Wang

Location: Hall C (Ernest N. Morial Convention Center)

#### Bioactive surfaces through affinity tag protein-polymer conjugation

(3990891)

**DIVISION: PMSE** 

Presenter(s): Alyssa Necaise

Location: Hall C (Ernest N. Morial Convention Center)

# Bioinspired structural color with multi-stimuli-responsiveness by tailored chemical design and processing of core-shell polymer particles

(3989576) DIVISION: PMSE

Presenter(s): Lukas Siegwardt

Location: Hall C (Ernest N. Morial Convention Center)

#### Bottlebrush polymer excipients for enhancing solubility of an oral drug

(3995163)

**DIVISION: PMSE** 

Presenter(s): Kaylee Barr

Location: Hall C (Ernest N. Morial Convention Center)

# Cardiac troponin I detection using screen printer electrodes modified with sulfonated styrene-isobutylene-styrene (SIBS) block copolymer

(3993630)

**DIVISION: PMSE** 

Presenter(s): Raquel Feliciano Crespo

Location: Hall C (Ernest N. Morial Convention Center)

#### Characterization of bioluminescent silk micro/nanoparticles

(3994058) DIVISION: PMSE

Presenter(s): Keavy Lynch

Location: Hall C (Ernest N. Morial Convention Center)

# Characterization of evolving carbon structures from Bis-ortho-diynylarene (BODA)-derived polynaphthalene networks via non-isothermal TGA kinetics and pyro-GCMS

(3985544)

**DIVISION: PMSE** 

Presenter(s): Ernesto Borrego

Location: Hall C (Ernest N. Morial Convention Center)

# Composite materials made from silk and gold nanoparticles for photothermal applications

(3994547)

**DIVISION: PMSE** 

Presenter(s): Morgan Stucky

Location: Hall C (Ernest N. Morial Convention Center)

# Comprehensive analysis of epoxy resin micro-composite inks for the improvement of processability and printability in direct ink writing

(3995511)

**DIVISION: PMSE** 

Presenter(s): Zane Smith

Location: Hall C (Ernest N. Morial Convention Center)

# Computational investigation of nanoparticle agglomeration in PLA-glass/iron nanocomposites

(3983034)

**DIVISION: PMSE** 

Presenter(s): William Angelo Pisani

Location: Hall C (Ernest N. Morial Convention Center)

#### Controlling material degradability through sterochemistry

(3988086)

**DIVISION: PMSE** 

Presenter(s): Aech Gilbert Loar | Britney Baez Location: Hall C (Ernest N. Morial Convention Center)

#### Core-shell hybrid filaments for 3D printing vis fused filament fabrication

(3996312)

**DIVISION: PMSE** 

Presenter(s): Bernadine Daichendt

Location: Hall C (Ernest N. Morial Convention Center)

### Deep eutectic solvents utilized in high-temperature HIPE formation, stabilized with graphite/graphene

(3983132) DIVISION: PMSE

Presenter(s): Cesar Esteban Gouveia

Location: Hall C (Ernest N. Morial Convention Center)

#### Delivering genes with quinine-based polymers

(3984007) DIVISION: PMSE

Presenter(s): Punarbasu Roy

Location: Hall C (Ernest N. Morial Convention Center)

#### Desigining a synthetic signalling pathway using Hyrogelsfd

(3991893)

**DIVISION: PMSE** 

Presenter(s): Cooper Valentine

Location: Hall C (Ernest N. Morial Convention Center)

# Design and validation of a co-polymerizable MMP inhibitor for dental adhesive applications

(3992887)

**DIVISION: PMSE** 

Presenter(s): Matthew Logan

Location: Hall C (Ernest N. Morial Convention Center)

#### Designing additives to control the shear strength of a polyacrylate adhesive

(3991559)

**DIVISION: PMSE** 

Presenter(s): Caleb D Potter

Location: Hall C (Ernest N. Morial Convention Center)

#### Designing robust microgels: A double network approach

(3989673)

**DIVISION: PMSE** 

Presenter(s): Caitlyn Victoria O'Dell

Location: Hall C (Ernest N. Morial Convention Center)

# Development and design of porous organic polymers for enhancing their capability for selectively carbon dioxide capture

(3991681)

**DIVISION: PMSE** 

Presenter(s): Mahmoud Mohamed Abdelnaby Location: Hall C (Ernest N. Morial Convention Center)

### Development of a crosslinked zwitterionic-based hydrogel as a vitreous substitute with anti-fouling properties

(3988034) DIVISION: PMSE

Presenter(s): Amine Laradji

Location: Hall C (Ernest N. Morial Convention Center)

### Development of single source liquid phase precursors for HFC-SiCN ceramic mini composites with enhanced oxidation resistance

(3995134) DIVISION: PMSE

Presenter(s): Arijit Roy

Location: Hall C (Ernest N. Morial Convention Center)

# Effects of graphene-based additives on the electromagnetic properties of morphologically tailored polyurethane composite films

(3990640) DIVISION: PMSE

Presenter(s): Zoe Lequeux

Location: Hall C (Ernest N. Morial Convention Center)

#### Electrophoretically deposited TiO2-containing pectin smart and corrosionresistant composite coatings

(3990173) DIVISION: PMSE

Presenter(s): Marcel Roy Domalanta

Location: Hall C (Ernest N. Morial Convention Center)

#### **Electropolymerized organic mixed ionic-electronic conductors**

(3991347)

**DIVISION: PMSE** 

Presenter(s): Arnel Besic

Location: Hall C (Ernest N. Morial Convention Center)

### Electrospinning of polycarbodiimide fibers from pyridine and dichloroethane stocks

(3992567)

**DIVISION: PMSE** 

Presenter(s): Oleg V. Kulikov

Location: Hall C (Ernest N. Morial Convention Center)

### Elucidation of the effect of polymer architecture on targeting ligand presentation in nucleic acid delivery vehicles

(3993861) DIVISION: PMSE

Presenter(s): Anthony Radka

Location: Hall C (Ernest N. Morial Convention Center)

#### Engineered chirality inversion of light in helicoidal biocomposite thin films

(3992395) DIVISION: PMSE

Presenter(s): Daria Bukharina

Location: Hall C (Ernest N. Morial Convention Center)

# Enhancing cancer therapy: Nir responsive drug delivery via silica coated gold nanorods incorporating thermoresponsive polymer coating

(3983336) DIVISION: PMSE

Presenter(s): Rizul Gautam

Location: Hall C (Ernest N. Morial Convention Center)

### Enhancing selective copper recovery with chelating group functionalized membranes

(3990979)

**DIVISION: PMSE** 

Presenter(s): Fiona Chen

Location: Hall C (Ernest N. Morial Convention Center)

# Enhancing the mechanical properties of poly(styrene-butadiene-styrene) with layered double hydroxide nanoparticles through varied coating techniques

(3987753)

**DIVISION: PMSE** 

Presenter(s): Jason Daniel Pulla

Location: Hall C (Ernest N. Morial Convention Center)

# Evaluation of polyethylene glycol dimethacrylate copolymers for use in 3D printed biliary stents

(3995022)

**DIVISION: PMSE** 

Presenter(s): Cynthia Gaddam

Location: Hall C (Ernest N. Morial Convention Center)

# Examination of mechanical and thermal degradation properties of polylactic acid embedded with lignin–cellulose nanocrystals chars

(3995171) DIVISION: PMSE

Presenter(s): Tracy Renee Brown

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring a means to improve the processability of high Tg imine-benzoxazine vitrimers

(3993881)

**DIVISION: PMSE** 

Presenter(s): Jo Drake Arrington

Location: Hall C (Ernest N. Morial Convention Center)

### Fabrication of nanostructured fuel cell membranes using liquid crystal based materials

(3992779)

**DIVISION: PMSE** 

Presenter(s): Ruiqi Dong

Location: Hall C (Ernest N. Morial Convention Center)

### Fluorescent silk microparticles containing semiconducting polymer nanoparticles

(3994792)

**DIVISION: PMSE** 

Presenter(s): Caleb Doherty

Location: Hall C (Ernest N. Morial Convention Center)

### Generating tough double network microgels by an emulsification method to make a biomedical adhesive

(3995849)

**DIVISION: PMSE** 

Presenter(s): Quinn Tufino

Location: Hall C (Ernest N. Morial Convention Center)

### Hemal loaded mesoporous bioactive glass nanoparticles reinforced alginate based coaxial nanofibers for drug deliver applications

(3995557)

**DIVISION: PMSE** 

Presenter(s): Hassan Nadeem

Location: Hall C (Ernest N. Morial Convention Center)

### Identifying low-field NMR biomarkers to characterize collagen/fibrin hydrogel composition

(3997149)

**DIVISION: PMSE** 

Presenter(s): Hiya Sawhney

Location: Hall C (Ernest N. Morial Convention Center)

### Influence of interfacial anchoring on properties of structures 3D printed using core-shell hybrid filaments

(3997533) DIVISION: PMSE

Presenter(s): Bernadine Daichendt

Location: Hall C (Ernest N. Morial Convention Center)

#### Integration of reactive polymers and strain sensors for chemical sensing

(3993751) DIVISION: PMSE

Presenter(s): Hyunjoo Seo

Location: Hall C (Ernest N. Morial Convention Center)

# Investigation into carbon-conscious Poly(hydroxy)urethane foam with phase change materials for thermal energy storage applications

(3984472)

**DIVISION: PMSE** 

Presenter(s): Chloe Lucci

Location: Hall C (Ernest N. Morial Convention Center)

#### Ionically-crosslinked polyelectrolyte treatment for fire retardant polyester

(3980522)

**DIVISION: PMSE** 

Presenter(s): Dallin L. Smith

Location: Hall C (Ernest N. Morial Convention Center)

### Microfluidic self-assembly of colorimetric PDA liposome sensors using flow rate manipulation

(3992094)

**DIVISION: PMSE** 

Presenter(s): Claire Razanauskas

Location: Hall C (Ernest N. Morial Convention Center)

### Microfluidically produced microcapsules with amphiphilic polymer conetwork shells

(3984371) DIVISION: PMSE

Presenter(s): Sara T. R. Velasquez

Location: Hall C (Ernest N. Morial Convention Center)

#### N- type conjugated polymer

(3990230)

**DIVISION: PMSE** 

Presenter(s): Varsha Verma

Location: Hall C (Ernest N. Morial Convention Center)

#### Overcoming thermal instability in organic solar cells using cleavable sidechains

(3983172)

**DIVISION: PMSE** 

Presenter(s): Andrew Bates

Location: Hall C (Ernest N. Morial Convention Center)

# Overview of broadband dielectric spectroscopy and its applications in 3D printing and polymer characterization

(3989060)

**DIVISION: PMSE** 

Presenter(s): James Hunter Lambert

Location: Hall C (Ernest N. Morial Convention Center)

# Phytochemical screening of essential oil and evaluation of antimicrobial activity and antioxidant properties of plant essential oil-loaded biopolymer as a potential wound healing

(3975778)

**DIVISION: PMSE** 

Presenter(s): Temitayo Margaret Omoyeni

Location: Hall C (Ernest N. Morial Convention Center)

### Polymeric blend exploration for tendon manufacturing in tendon replacement therapy

(3988602)

**DIVISION: PMSE** 

Presenter(s): Anh Nguyen

Location: Hall C (Ernest N. Morial Convention Center)

### Polymeric copper chelator for long-term inhibition of breast cancer proliferation and lung metastasis

(3990916)

**DIVISION: PMSE** 

Presenter(s): Xianzhe He

Location: Hall C (Ernest N. Morial Convention Center)

#### Preparation and structural analysis of polymer-derived ceramic nanocomposites

(3983489)

**DIVISION: PMSE** 

Presenter(s): Virginia Mullins

Location: Hall C (Ernest N. Morial Convention Center)

#### Preparation and studies of New difunctional spirocyclic epoxy monomers

(3994660)

**DIVISION: PMSE** 

Presenter(s): Andrew Kelly

Location: Hall C (Ernest N. Morial Convention Center)

# Probing dynamics: Triggering changes in hydrogel-based synthetic extracellular matrices with light toward understanding lung injury and disease

(3981209)

**DIVISION: PMSE** 

Presenter(s): Samantha Swedzinski

Location: Hall C (Ernest N. Morial Convention Center)

#### Progress in the development of modular glycopolymers tailored to inhibit norovirus infections

(3994115)

**DIVISION: PMSE** 

Presenter(s): Simeon Samuel Newman

Location: Hall C (Ernest N. Morial Convention Center)

### Promising eco-friendly polymers for corrosion inhibition of AZ31 magnesium alloy in simulated body fluid

(3978912)

**DIVISION: PMSE** 

Presenter(s): Abdulrahman Aleid

Location: Hall C (Ernest N. Morial Convention Center)

### Responsive polymeric capsules as feedstocks for creating functional solid-liquid composites

(3990172)

**DIVISION: PMSE** 

Presenter(s): Chia-Min Hsieh

Location: Hall C (Ernest N. Morial Convention Center)

# Solvent-dependent sorption of recycling contaminant surrogates in polypropylene food contact materials

(3977935)

**DIVISION: PMSE** 

Presenter(s): Yoon S Song | Huayi Wang

Location: Hall C (Ernest N. Morial Convention Center)

#### Spray delivery of supramolecular polymer biomaterials

(3990274) DIVISION: PMSE

Presenter(s): Loria DiMartino

Location: Hall C (Ernest N. Morial Convention Center)

# Stiffness modulation of chitosan-derived nanoparticles impact auranofin drug delivery in triple negative breast cancer

(3990084) DIVISION: PMSE

Presenter(s): Maame Abena Oforiwaa Afrifa Location: Hall C (Ernest N. Morial Convention Center)

### Surface modification of silk fibroin for electrostatic binding with metal nanostructures

(3994256)

**DIVISION: PMSE** 

Presenter(s): Marie Kerns

Location: Hall C (Ernest N. Morial Convention Center)

# Synergistic copolymer blending informs efficient terpolymer design for high performance PDNA delivery

(3993021)

DIVISION: PMSE

Presenter(s): Michael Cody Leyden

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis and evaluation of a Diels-Alder polyphenylene with tethered multication moieties

(3989862)

**DIVISION: PMSE** 

Presenter(s): Ana Soares

Location: Hall C (Ernest N. Morial Convention Center)

### Tailored polyurethane composite coatings for corrosion protection of carbon steel using a hybrid mesoporous ceria-titania system

(3986318)

**DIVISION: PMSE** 

Presenter(s): Ahmadyar Qureshi

Location: Hall C (Ernest N. Morial Convention Center)

# Tailoring bio-based polyester UV-curable resins with tunable mechanical properties suitable for SLA 3D printing applications

(3977523) DIVISION: PMSE

Presenter(s): Syed M. Q. Bokhari

Location: Hall C (Ernest N. Morial Convention Center)

#### Thermally stable ceramics derived from crosslinked borate containing preceramic polymers

(3995568) DIVISION: PMSE

Presenter(s): Clayton Curtis

Location: Hall C (Ernest N. Morial Convention Center)

### Thermodynamic insights into rare-earth element chelation by metal-binding oligomers

(3990873) DIVISION: PMSE

Presenter(s): Connor Michael Blake Gallagher Location: Hall C (Ernest N. Morial Convention Center)

# Tuning the spatial arrangement of solid-state sol-gel-based polymer electrolyte membranes via thermal annealing

(3996317) DIVISION: PMSE

Presenter(s): Zhao Ren Tan

Location: Hall C (Ernest N. Morial Convention Center)

### Unraveling the impact of aging on high molecular weight Diels-Alder polyphenylene

(3990358) DIVISION: PMSE

Presenter(s): Nolan Hendrickson

Location: Hall C (Ernest N. Morial Convention Center)

### Versatile heterogeneous porous organic polymer catalyst for cross-coupling reactions

(3997485) DIVISION: PMSE

Presenter(s): Molly Catherine Warndorf

Location: Hall C (Ernest N. Morial Convention Center)

#### **POLY**

# Additive manufacturing of depolymerizable polyurethanes with bis(2-hydroxyethyl) terephthalate as a comonomer

(3987111) DIVISION: POLY

Presenter(s): Clarissa Westover

Location: Hall C (Ernest N. Morial Convention Center)

# Analysis of aminated polybutadiene via matrix-assisted laser desorption/ionization - time-of-flight mass spectrometry

(3996564) DIVISION: POLY

Presenter(s): Brennan Curole

Location: Hall C (Ernest N. Morial Convention Center)

#### Blend compatibility of starch acetate with PLA as a biodegradable polymer alternative

(3988739) DIVISION: POLY

Presenter(s): Carter Hudson

Location: Hall C (Ernest N. Morial Convention Center)

#### Cellulose-based poly(ionic liquid)s using a RAFT approach

(3985597) DIVISION: POLY

Presenter(s): Marisa D Thompson

Location: Hall C (Ernest N. Morial Convention Center)

#### Chemi-mechanical recycling of post-consumer recycled plastics

(3997701) DIVISION: POLY

Presenter(s): Arsalaan Nisar Pathan

Location: Hall C (Ernest N. Morial Convention Center)

# Design of raft agents for streamlined measurements of polymer chain conformations and diffusivity

(3985593) DIVISION: POLY

Presenter(s): Sara Valdez

Location: Hall C (Ernest N. Morial Convention Center)

#### Design of single-chain nanoparticle polymer networks

(3990284)

**DIVISION: POLY** 

Presenter(s): Kelly Hooper

Location: Hall C (Ernest N. Morial Convention Center)

#### Designing raft agents for streamlined measurements of polymer chain conformations

(3984644) DIVISION: POLY

Presenter(s): Syba Ismail

Location: Hall C (Ernest N. Morial Convention Center)

# Dye-incorporated polymers with functionalities for both lubricity and adhesion and their coating of PEG-based hydrogel microspheres for application in the treatment of knee osteoarthritis

(3994509) DIVISION: POLY

Presenter(s): Maitreyi Bhagat

Location: Hall C (Ernest N. Morial Convention Center)

# Effects of molecular weight and functionality on front velocity of epoxies in radical induced cationic frontal polymerization

(3992469) DIVISION: POLY

Presenter(s): Julia P Carroll

Location: Hall C (Ernest N. Morial Convention Center)

### Evaluating graphene-based additives in polyurethane films for magnetic, conductive, and morphological properties

(3993957) DIVISION: POLY

Presenter(s): Christopher Faulkner

Location: Hall C (Ernest N. Morial Convention Center)

### Expanding dielectric constants: An iterative growth approach with polyhydroxy dendrimers

(3995962) DIVISION: POLY

Presenter(s): Arianna Chisum

Location: Hall C (Ernest N. Morial Convention Center)

### Expanding the thermal window of guanidine-based covalent adaptable networks

(3983176)

**DIVISION: POLY** 

Presenter(s): Alan Daniel Garza

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring Diels-Alder synthesized poly(phenylene): Insights regarding synthesis and reaction kinetics

(3987550) DIVISION: POLY

Presenter(s): Bradley A Swan | Laura Lo

Location: Hall C (Ernest N. Morial Convention Center)

### Exploring the foldcat hypothesis: Investigating the growth and sequence differentiation of prebiotic polymers using HP random copolypeptoids

(3999525) DIVISION: POLY

Presenter(s): Samuel Owoso

Location: Hall C (Ernest N. Morial Convention Center)

# Exploring the impact of saccharide density on bioactivity of self-assembled "Janus-type" linear dendritic block copolymers

(3995828) DIVISION: POLY

Presenter(s): Thomas Newton

Location: Hall C (Ernest N. Morial Convention Center)

#### Fluorogenic radical polymerization for reaction monitoring and polymer characterization

(3985250) DIVISION: POLY

Presenter(s): Nicholas Cipolla

Location: Hall C (Ernest N. Morial Convention Center)

### Frontal polymerization of thiol-ene free-radical and vinyl ether cationic hybrid system

(3981184) DIVISION: POLY

Presenter(s): Alexandra Aucoin

Location: Hall C (Ernest N. Morial Convention Center)

### Gas-free initiation for free-radical frontal polymerization through charge transfer complexes

(3985628) DIVISION: POLY

Presenter(s): Md Abdullah Al Mahmud

Location: Hall C (Ernest N. Morial Convention Center)

#### High mechanical strength polymers with various links from inverse vulcanization

(3991093) DIVISION: POLY

Presenter(s): Sumin Choi

Location: Hall C (Ernest N. Morial Convention Center)

### High performance hydrolytically degradable epoxy-amine networks based on isosorbide

(3981518) DIVISION: POLY

Presenter(s): Luke Lewis | Derek L Patton

Location: Hall C (Ernest N. Morial Convention Center)

### Influence of additives on bubble and crack formation variation in acrylate systems

(3996026) DIVISION: POLY

Presenter(s): Brennan Poole

Location: Hall C (Ernest N. Morial Convention Center)

# Influence of temperature on the size and polydispersity of PEG-PDMS polymersomes

(3982220) DIVISION: POLY

Presenter(s): Lacy Kate Severn

Location: Hall C (Ernest N. Morial Convention Center)

#### Investigating biofilm formation on polymer substrates via flow cells

(3990909) DIVISION: POLY

Presenter(s): Sarah Crowsey

Location: Hall C (Ernest N. Morial Convention Center)

#### Investigating the reactivity of $\epsilon$ -Thionocaprolactone and maleimide derivatives

(3994639) DIVISION: POLY

Presenter(s): Madison Elizabeth Ross

Location: Hall C (Ernest N. Morial Convention Center)

# Investigation of lignin derived methoxylated terephthalates in copolymers and as plasticizers for performance advantaged bio-products

(3995674) DIVISION: POLY

Presenter(s): Katherine Chism

Location: Hall C (Ernest N. Morial Convention Center)

### Kinetics of thiol protecting groups as a step towards dual-trigger degradation of thioether thermosets

(3996070) DIVISION: POLY

Presenter(s): Rylan F. Price

Location: Hall C (Ernest N. Morial Convention Center)

#### Little-known nylons: Nylon 5,9 properties

(3991982) DIVISION: POLY

Presenter(s): Peter Marlin Meyer

Location: Hall C (Ernest N. Morial Convention Center)

# Low temperature photoinferter RAFT polymerization of $\alpha$ -methyl styrene for controllable depolymerization as a potential route to plastic recycling

(3984447) DIVISION: POLY

Presenter(s): Charles Lewis McCormick

Location: Hall C (Ernest N. Morial Convention Center)

#### Mechanically robust 3D-printed carbon from commercial polyethylene

(3999146) DIVISION: POLY

Presenter(s): Ethan Bounds

Location: Hall C (Ernest N. Morial Convention Center)

#### Mechanophore activation in triblock copolymers at high strain rates

(3994470) DIVISION: POLY

Presenter(s): John F Searles

Location: Hall C (Ernest N. Morial Convention Center)

# Modification of a 1,3-dioxane ring containing acrylate monomer to afford a new library of polymeric architectures

(3990082) DIVISION: POLY

Presenter(s): RJ Viereckl

Location: Hall C (Ernest N. Morial Convention Center)

#### Optimization of cure-on demand thin layer coatings using frontal polymerization

(3996374) DIVISION: POLY

Presenter(s): Madison Dawson

Location: Hall C (Ernest N. Morial Convention Center)

# Optimizing OECT performance with polymer blends: Studying volumetric capacitance in poly(3-hexylthiophene) based organic transistors

(3994991) DIVISION: POLY

Presenter(s): Jeffrey Buetow

Location: Hall C (Ernest N. Morial Convention Center)

#### Organo-nanoparticle with tuneable size and rigidity using microemulsion ATRP

(3972378)

DIVISION: POLY

Presenter(s): Rongguan Yin

Location: Hall C (Ernest N. Morial Convention Center)

### Peptide sequences for selectively targeting delivery vehicles to Trichomonas vaginalis

(3992486) DIVISION: POLY

Presenter(s): Jalissa Warthen

Location: Hall C (Ernest N. Morial Convention Center)

### Polyisobutylene reinforcement through multi-block chain exchange shuffling polymerization with isotactic Polypropylene

(3989418) DIVISION: POLY

Presenter(s): Yuliana Ospina Yepes

Location: Hall C (Ernest N. Morial Convention Center)

#### Polymerization of acetylenes by well-defined palladium catalysts

(3983516) DIVISION: POLY

Presenter(s): Zhi-Hao Chen

Location: Hall C (Ernest N. Morial Convention Center)

# Precursor design for efficient synthesis of large-pore, sulfur-doped ordered mesoporous carbon through direct pyrolysis

(3992966) DIVISION: POLY

Presenter(s): Andrew Barbour

Location: Hall C (Ernest N. Morial Convention Center)

#### Preparation and characterization of a polymer exchange membrane

(3994909) DIVISION: POLY

Presenter(s): Lauren Trout

Location: Hall C (Ernest N. Morial Convention Center)

#### Sustainably derived insulation boards

(3995432) DIVISION: POLY

Presenter(s): Bayleigh Madelin Loving

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis and characterization of a solid single-ion copolymer electrolyte for use in lithium-ion batteries

(3994802) DIVISION: POLY

Presenter(s): Rhonwyn Fleming

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis and characterization of mellitic triimide based covalent organic frameworks

(3994942) DIVISION: POLY

Presenter(s): Megan Brenner

Location: Hall C (Ernest N. Morial Convention Center)

# Synthesis and characterization of polypeptide and polypeptoid polyelectrolyte complexes to understand molecular characteristic effect on coacervation

(3994304) DIVISION: POLY

Presenter(s): Anuja Thapa

Location: Hall C (Ernest N. Morial Convention Center)

### Synthesis and RAFT polymerization of amino-functionalized methacrylic monomers

(3989764) DIVISION: POLY

Presenter(s): Dean Afsar

Location: Hall C (Ernest N. Morial Convention Center)

# The direct arylation polymerization of a degradable imine-based conjugated polymer with a computational perspective

(3994621) DIVISION: POLY

Presenter(s): Nathan Sung Yuan Hsu

Location: Hall C (Ernest N. Morial Convention Center)

#### Thermally controlled applications of inhalable nitric oxide releasing polymers

(3991299) DIVISION: POLY

Presenter(s): Matthew Maliskey

Location: Hall C (Ernest N. Morial Convention Center)

### Ultrafast xanthate-mediated Photoiniferter polymerization-induced self-assembly (PISA)

(3989660) DIVISION: POLY

Presenter(s): Jared Bowman

Location: Hall C (Ernest N. Morial Convention Center)

# Uncontrolled photoinitiated fluorogenic polymerization for biomolecular detection and monitoring polymerization kinetics

(3990343) DIVISION: POLY

Presenter(s): Margaret Karim

Location: Hall C (Ernest N. Morial Convention Center)

### Unveiling the sidechain branching effect on crystal structure and microstructure of the respective thin films of phenothiazine derived polyaniline

(3990732) DIVISION: POLY

Presenter(s): Hari Giri

Location: Hall C (Ernest N. Morial Convention Center)

#### Waterborne polyurethane latexes for VAT photopolymerization

(3993034) DIVISION: POLY

Presenter(s): Ren Bean

Location: Hall C (Ernest N. Morial Convention Center)

#### **PROF**

#### Development of Aldehyde Dehydrogenase-Activated Photosensitizers for Targeted Photodynamic Therapy of Cancer Stem Cells

(4054816) DIVISION: PROF

Presenter(s): Joseph Anthony Forzano

Location: Hall C (Ernest N. Morial Convention Center)

#### Ethics and new legislation- the impact of ethics once a new law takes effect

(3982979) DIVISION: PROF

Presenter(s): Theresa Deangelo

Location: Hall C (Ernest N. Morial Convention Center)

#### **Increasing Participation of Students with Disabilities in STEM**

(4043521) DIVISION: PROF

Presenter(s): Sharon Rozovsky

Location: Hall C (Ernest N. Morial Convention Center)

#### Navigating the ethical landscape of sustainable materials in chemistry

(3994227) DIVISION: PROF

Presenter(s): Suze Kundu

Location: Hall C (Ernest N. Morial Convention Center)

# Photocatalytic Anti-Markovnikov Hydroamination of Alkenes with Primary Heteroaryl Amines

(4054815) DIVISION: PROF

Presenter(s): Eric Geunes

Location: Hall C (Ernest N. Morial Convention Center)

#### Protein engineering-enabled chemoenzymatic tropolone synthesis

(3982985) DIVISION: PROF

Presenter(s): Jose Hernandez

Location: Hall C (Ernest N. Morial Convention Center)

#### Towards the total synthesis of auriculatol A

(4054819) DIVISION: PROF

132 [PROF]

Presenter(s): Jordan Thompson

Location: Hall C (Ernest N. Morial Convention Center)

133 [PROF]