

Joint Meeting of SERMACS/SWRM 2025

The 76th Southeastern and 81st Southwest Joint Regional Meeting of the American Chemical Society

Theme: Chemistry in the Sunshine

FINAL PROGRAM BOOK

October 26-29, 2025

Held at DoubleTree by Hilton Orlando at SeaWorld

Orlando, FL

Hosted by the Orlando Local Section

ACS Local Section Orlando



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WASHINGTON, D.C. 20036
Phone 202-872-4461
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October 26, 2025

Dear Southeastern and Southwest Joint Regional Meeting Participants:

Regional meetings provide us with the opportunity to learn, hear innovative ideas and approaches, and collaborate, all while networking, often informally, with our ACS Community!

On behalf of the ACS global community, I am delighted to extend my warm personal greetings to all of you attending the 76th Southeastern and 81st Southwest Joint Regional Meeting (SERMACS/SWRM) in sunny Orlando, FL. This meeting will feature scientists from across the southern United States, from California to Florida!

Under the meeting theme of "Chemistry in the Sunshine" SERMACS/SWRM 2025, please take advantage of the variety of amazing symposia, poster sessions, and workshops being held. The meeting will also feature keynote speakers Kathleen Loftin, NASA Academic Research Program Manager; and Greogory Eiden, Laboratory Fellow, with the Idaho National Laboratory.

Should your schedule permit, I encourage everyone to attend the Florida Local Section and HBCU/SACNAS Breakfasts; the Women Chemists and Youngers Chemists Luncheons; and the SERMACS/SWRM Opening and Chemistry in the Sunshine Receptions, as well as the SERMACS/SWRM Awards Banquet.

With all these great symposia, workshops, and social events, I want to express my special thanks to SERMACS/SWRM General Co-Chairs Chris Avery and Chris Chouinard and SWRM Regional Chair, Sara Hubbard, and the many organizers and volunteers, ACS staff, and especially to our hosts the Orlando Local Section, for their hard work and dedication to create an intellectually stimulating, and entertaining experience here in Orlando, FL.

Best wishes for the most successful SERMACS/SWRM 2025!

Sincerely,

Dorothy J. Phillips

Dorothy J. Phillips
President
American Chemical Society

Thank you to SERMACS/SWRM 2025 Sponsors!
You've helped make this conference great!

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Tampa Bay Local Section

Building Bonds By The Bay

ACS Tampa Bay Local Section is a proud sponsor of SERMACS/SWRM 2025!

Meet us in the Expo at C3 on October 27 & 28th!

Contact: Dr. Tony Pham at tpham4@usf.edu

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A proud sponsor of

SERMACS/SWRM 2025

Join us at the Expo

Monday and Tuesday, booth A1

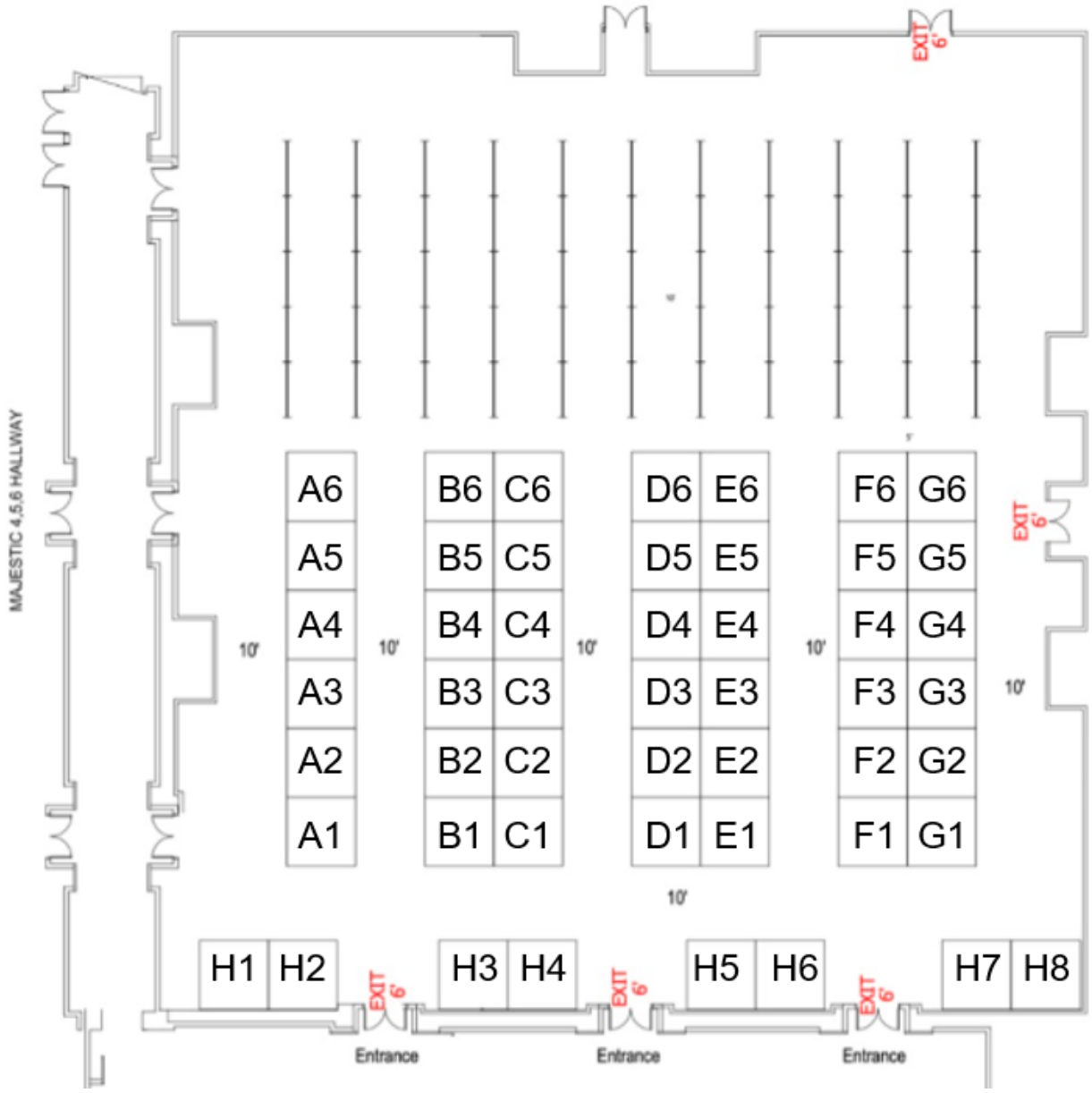


Thank you to the ACS Division of Inorganic Chemistry for reaching
our Tangelo Level Sponsorship

SERMACS/SWRM 2024 – Grad Fair

Sunday, October 26th, 10am-5pm

Majestic Ballroom



A1	Rensselaer Polytechnic Institute
A2	Joint School of Nanoscience and Nanoengineering
A3	Middle Tennessee State University
A4	University of Texas Southwestern Organic Chemistry PhD Program
A5	Georgia Southern University
A6	Texas A&M University

B1	Texas Tech University, Department of Chemistry and Biochemistry
B2	Georgia State University
B3	University of Miami- Chemistry
B4	University of South Florida
B5	University of Houston
B6	Florida State University
C1	North Carolina State University, Department of Chemistry
C2	PCOM Georgia School of Pharmacy
C3	University of Tennessee
C4	University of Alabama
C5	University of Georgia, Department of Chemistry
C6	University of Central Florida
D1	Virginia Tech
D2	University of Texas at El Paso
D3	University of South Carolina
D4	Mississippi State University
D5	Clemson University
D6	Baylor University
E1	Florida International University
E2	University of Alabama at Birmingham
E3	Vanderbilt University, Department of Chemistry
E4	Tennessee Technological University
E5	Larkin University
E6	University of Memphis
F1	Duke University - Pratt School of Engineering
F2	Duke University- Thomas Lord Dept Mechanical Engineering and Materials Science
F3	University of Iowa- Department of Chemistry
F4	Old Dominion University - Department of Chemistry & Biochemistry
F5	Auburn University- Department of Chemical Engineering
F6	Auburn University
G1	University of Texas at Dallas
G2	The University of Oklahoma School of Sustainable Chemical, Biological and materials Engineering
G3	University of North Carolina at Greensboro, Department of Chemistry and Biochemistry
G4	University of North Carolina at Charlotte
G5/6	American Chemical Society
H1	University of Florida
H2	Virginia Commonwealth University
H3	University of North Carolina, Wilmington
H4	University of California, Riverside
H5	University of Kentucky - Pharmaceutical Sciences PhD Program
H6	Union University College of Pharmacy
H7	Texas State University
H8	East Tennessee University

SERMACS/SWRM 2024 – Expo

Monday, October 27th - Tuesday, October 28th

10am-5pm

Majestic Ballroom

A1	Agilent Technologies, Inc
A2	Magritek, Inc
A3	SERMACS 2026
A4	Oak Ridge National Laboratory
A5	Axcend
B1	Buchi Corp.
B2	Kessil PhotoReaction LED
B3	Top Hat
B4	Avantor Sciences
B6	JASCO Inc.
C1	Teledyne LABS
C2	Oakwood Chemical
C3	Tampa Bay Section of the American Chemical Society
C4	Rubber Division of the American Chemical Society
C5	PEAK Scientific
D1/2	Shimadzu Scientific Instruments
D3	Chem21Labs
D4	SWRM 2026
D5	Bruker
E1	Heidolph (ATS Life Sciences Group)
E2	SP Genevac
E3	Rotunda Scientific Technologies LLC
E4	Elemental Scientific
E5	Vernier Science Education
F1	RIGAKU
F2	Nanalysis Corp
F3	STX Inc
F4	IKA Works
G5/6	American Chemical Society
H1	Literature Table
H2	JEOL USA, Inc
H3	MilliporeSigma
H4	Thermo Fisher Scientific
H5	Carolina Distance Learning
H6	Radiant Journey

SERMACS/SWRM 2025: "Know Before you Go"

Getting Around the Conference

- SERMACS/SWRM will occupy conference space in 3 buildings at the Doubletree resort. Please refer to the information and map below:

Doubletree Conference Center - Main Building:

- Hotel Check-In
- Oral Session Rooms: Citrus B, Cypress A/B/C, Magnolia A/B/C
- Ticketed Breakfast/Lunch (Citrus A)

Tower Building

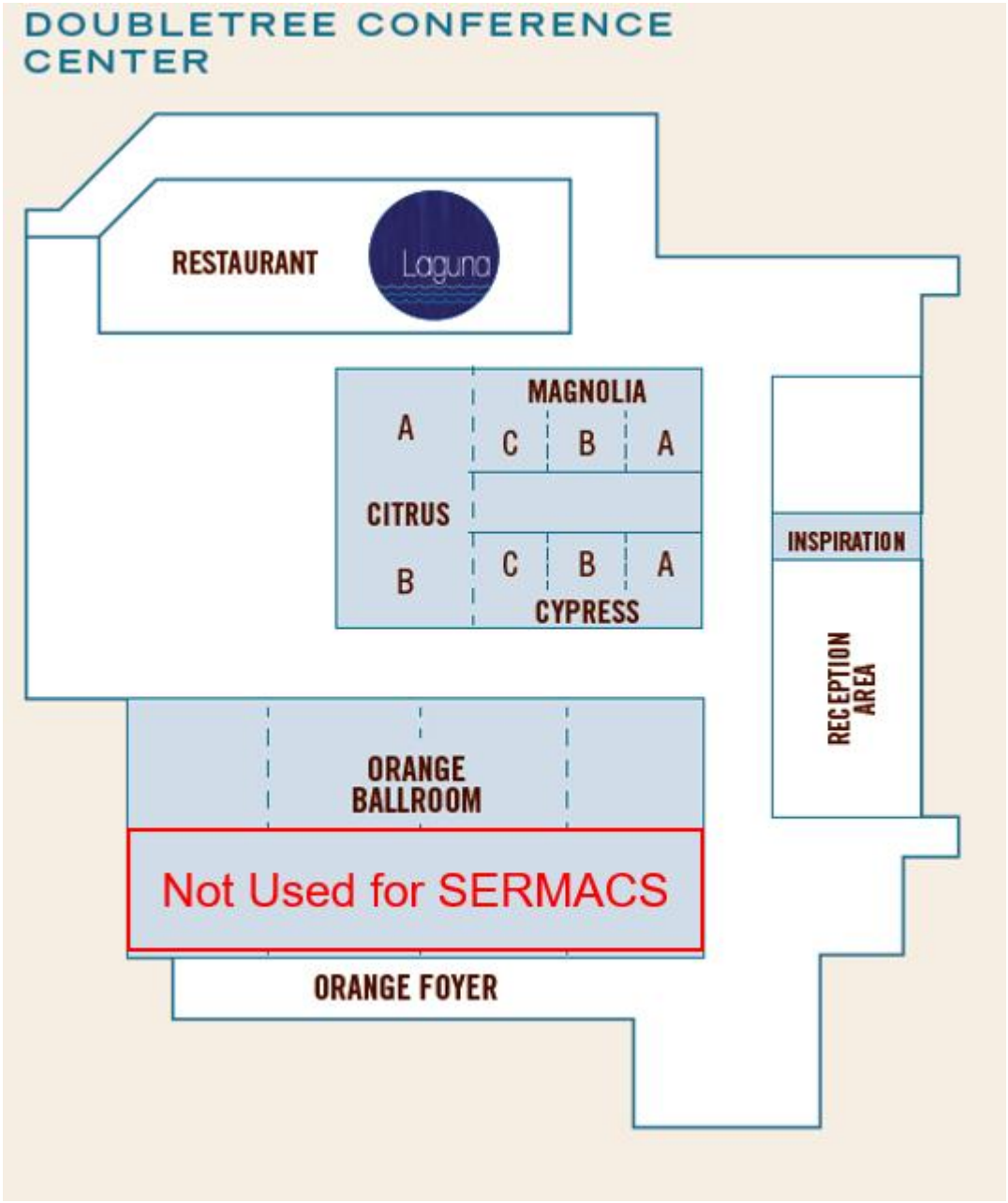
- Oral Session Rooms (First Floor): Flamingo, Nautilus A/B/C
- Oral Session Rooms (Second Floor): Harbor A/B/C, Pelican

Palms Conference Center - Expo/Poster Building

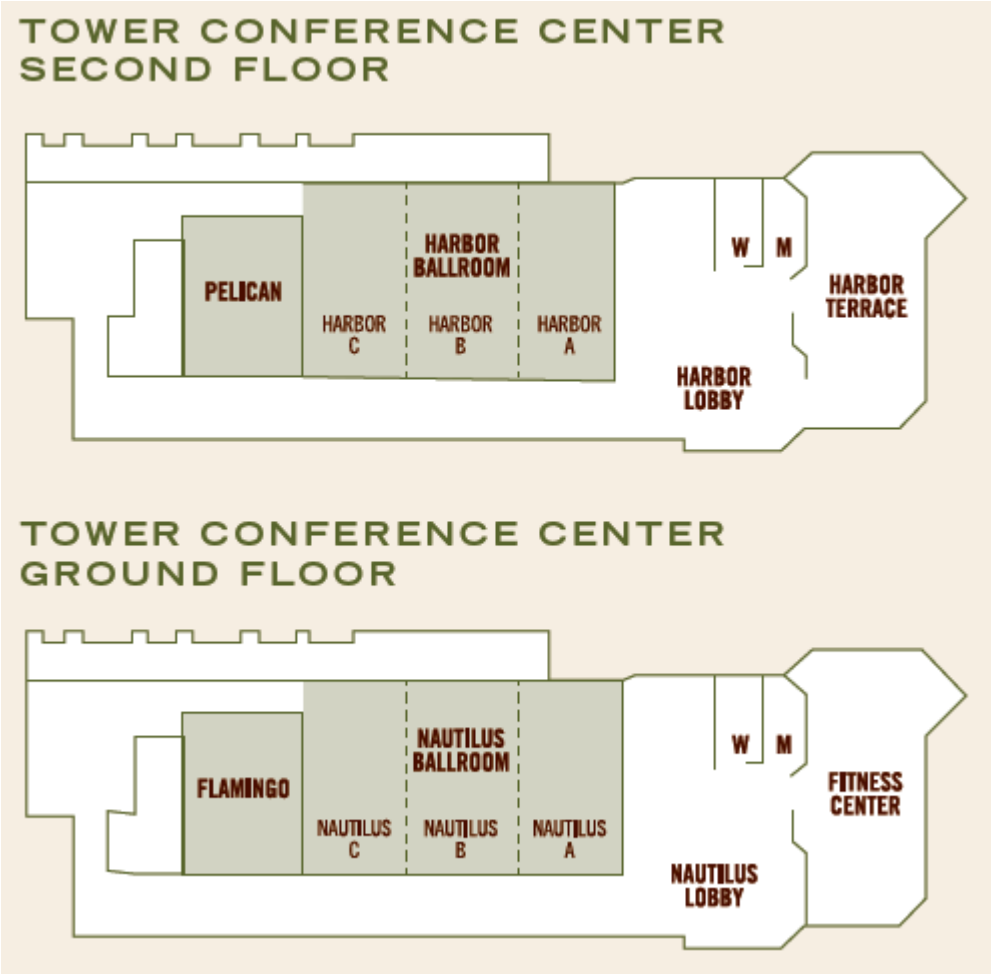
- **Conference Registration – Outside Majestic Ballroom**
- Grad Fair (Sunday) – Majestic Ballroom
- Exposition (Monday-Tuesday) – Majestic Ballroom
- All Poster Sessions – Majestic Ballroom
- Evening Receptions (Sunday/Monday) – Majestic Ballroom
- Workshops – Royal 1
- Plenary & Heritage Lectures – Royal 2



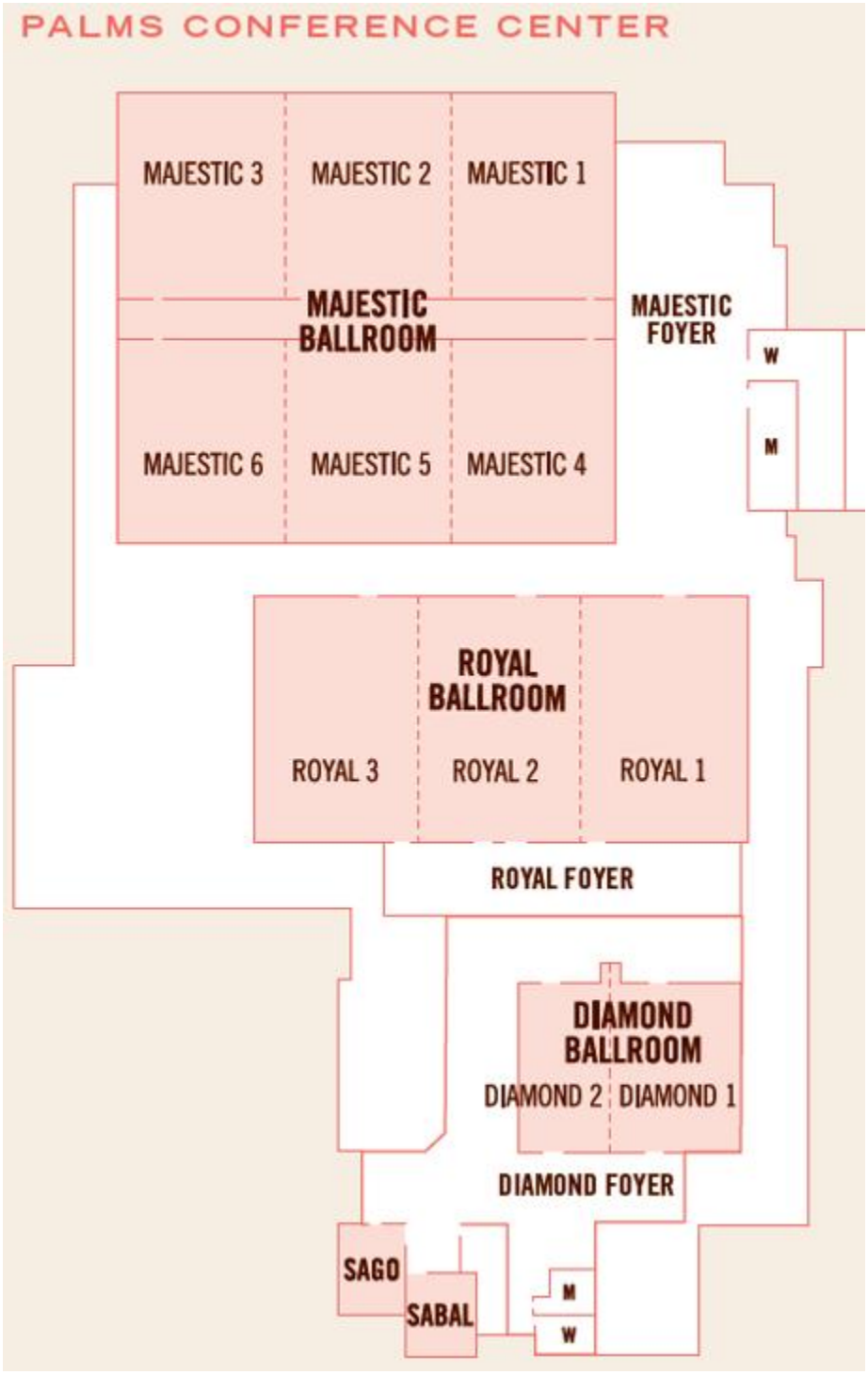
Main Building



Tower Building



Palms Conference Center - Expo/Poster Building



Poster Presenters

- Poster sessions (each 2-hours) are held on Sunday (10AM, 2PM, and 7PM), Monday (10AM, 2PM, and 7PM), and Tuesday (10AM and 2PM) in the Majestic Ballroom
- Please plan to hang your poster by the start of your session. You will have access to the Poster Hall at least 30 minutes in advance; i.e., by 9:30AM for a 10AM poster session.
- Please promptly remove your poster at the end of your session.
- Each poster board is 8’ (wide) x 4’ (tall); please be sure your poster does not exceed these dimensions.
- Each poster board will be numbered and we will provide push-pins for hanging posters.

Oral Presenters

- Please arrive at your session 30 minutes in advance to check-in with your session presider and confirm the technology needs.
- Laptops will *not be provided in the room*; Session presiders have been asked to bring their own laptops, however you may also bring your own laptop. Be sure to bring your presentation on a USB stick as backup
- The room will be equipped with **HDMI hookup** for laptops; ensure that your laptop is compatible with this connection, or please bring an appropriate adaptor
- The room will also be equipped with: clip-on mic for presenter, handheld microphone for presider and audience; speaker and 8’ screen; and wireless slide advancer with laser
- There will be “floating” technical help in each building to assist with any issues. There will be a card located at the front of your session room with a phone number to call for immediate assistance

Arriving at the Doubletree

- Hotel Check-In is located near the entrance of the main building
- Complimentary parking is provided for those who have booked their room through the SERMACS/SWRM hotel block
- For those not staying at the conference hotel, on-site self-parking is provided at $38/day. Please note that while In/Out Parking is available, you will be charged $38 each time you leave.

Food & Drink at the Conference

- The hotel offers several on-site dining and drink options. Please see the hotel website for more specific details

- We will offer several **ticketed meals** including breakfasts and luncheons. Please check our Schedule at Glance page for more details. Tickets for these events can be purchased through the ACS registration portal
- We will host complimentary coffee hours each day from 10-11AM and 3-4PM. Coffee stations will be set up *in each building* so you don't need to venture far from your activities
- We will host receptions on Sunday and Monday evenings (6:30-9:30PM) in the Expo/Poster Building. These will include complimentary hors d'oeuvres and drink tickets. Poster sessions will be held concurrently from 7-9PM, so grab a snack and drink and mingle with the poster presenters! Please be sure to register (for free) for these events when you register for the conference!

Additional Conference Information

- Getting to and from the DoubleTree
- Local Attractions

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: ACS ProjectSEED
SESSION TYPE: Oral
SESSION LOCATION: Harbor B
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 11:45 AM
SESSION HOST: Organizer: Ajay Mallia
Organizer: Doug Masterson
Presider: Ajay Mallia
Presider: Doug Masterson

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	8:00 AM 8:05 AM
2	1	ACS project SEED at UNC Charlotte: Chemistry research and impact on students	Walter, Michael	25	8:05 AM 8:30 AM
3	2	Organizing the ACS Project SEED Program at a Primarily Undergraduate Institution	Mwongela, Simon | Forlemu, Neville | Mallia, Ajay	25	8:30 AM 8:55 AM
4	3	Providing high school students with authentic research experiences through Project SEED and other efforts in the Snake River Local Section	Warner, Don	25	8:55 AM 9:20 AM
5	4	Leveraging NSF MPS-high to engage high school students in cyclotide research	Forlemu, Neville	25	9:20 AM 9:45 AM
6		Break		15	9:45 AM 10:00 AM
7	5	Starting a successful ACS project SEED program	Mallia, Ajay	25	10:00 AM 10:25 AM
8	6	The SEED Scholarship Programs	Rubinson, Judith	25	10:25 AM 10:50 AM
9	7	Getting started with Project SEED	Masterson, Doug	25	10:50 AM 11:15 AM
10	8	Co-mentoring as an effective strategy to maximize the student experience	Masterson, Douglas	25	11:15 AM 11:40 AM
11		Closing Remarks		5	11:40 AM 11:45 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancements in Catalysis for Sustainable Processes
SESSION TYPE: Oral
SESSION LOCATION: Cypress C
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 11:05 AM
SESSION HOST: Organizer: Christopher Koch
Organizer: Houston Smith
Presider: Christopher Koch
Presider: Houston Smith

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	8:00 AM 8:05 AM
2	9	Noble-metal free catalysts for ammonia dehydrogenation within permeation membrane	Koch, Christopher	15	8:05 AM 8:20 AM
3	10	Tracking the formation of C_2 products after the photodissociation of CH_3I on crystalline and amorphous TiO_2 surfaces	Blackman, Keith	15	8:20 AM 8:35 AM
4	11	Uncovering pH effects in nitrate electroreduction on Fe single-atom catalyst	Meng, Zhen	15	8:35 AM 8:50 AM
5	12	Surface-passivated high-entropy oxide catalysts for stable dry reforming of methane	Yang, Zhenzhen	15	8:50 AM 9:05 AM
6	13	Advancements in abating nitrous oxide emissions: A review of direct catalytic decomposition and selective catalytic reduction reactions	Gordon, Matt	15	9:05 AM 9:20 AM
7		Break		15	9:20 AM 9:35 AM
8	14	Cascade reduction of nitrate to ammonia in neutral electrolyte using nanostructured $Cu/Ni(OH)_2$ electrocatalyst	Egan, Thomas	15	9:35 AM 9:50 AM
9	15	Efficient and selective dehydration of arylethanols to Arylethylenes using zinc-based Lewis acid catalysts	Oladele, Olajumoke	15	9:50 AM 10:05 AM
10	16	Machine learning-accelerated discovery of single-atom catalysts for hydrogen evolution reaction	Ezeakunne, Chidozie	15	10:05 AM 10:20 AM
11	17	Computational design of single-atom alloy catalysts for electrochemical nitrate reduction to ammonia	PRIYADARSINI, ADYASA	15	10:20 AM 10:35 AM
12	18	Photoredox-inspired electrocalysis in nonthermal plasma for energy-efficient PFAS degradation	Christopher, Kimberley	15	10:35 AM 10:50 AM
13	19	Tuning $La_yCa_{1-y}FeO_3$ (y=0.2, 0.5, 0.8) perovskites on mesoporous silica for selective CO_2 hydrogenation to light olefins	Ghosh, Debasmita	15	10:50 AM 11:05 AM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Florida Local Sections Breakfast
SESSION TYPE:	Networking Event
SESSION LOCATION:	Citrus A
SESSION START TIME:	Sun 10/26/2025 8:00 AM
SESSION END TIME:	Sun 10/26/2025 10:00 AM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Frontiers in Nucleic Acids
SESSION TYPE: Oral
SESSION LOCATION: Magnolia B
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 11:50 AM
SESSION HOST: Organizer: Jessica Siemer
Organizer: Markus Germann
Organizer: Yulia Gerasimova
Organizer: Dmitry Kolpashchikov
Presider: Jessica Siemer
Presider: Markus Germann
Presider: Yulia Gerasimova
Presider: Dmitry Kolpashchikov

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks/ Setup		20	8:00 AM 8:20 AM
2	20	Cold-driven hybridization: A novel approach for dsDNA detection using all-DNA probes	Kolpashchikov, Dmitry	30	8:20 AM 8:50 AM
3	21	Multicomponent deoxyribozyme probes: A versatile tool for detecting genetic signatures down to a single nucleotide	Monsalve, Justine	30	8:50 AM 9:20 AM
4	22	*In vitro* synthesizing supercoiled circular DNA molecules	Leng, Fenfei	30	9:20 AM 9:50 AM
5		Coffee Break		25	9:50 AM 10:15 AM
6	23	Challenges in using N^1-methyladenosine as RNA biomarker for quantitative studies and determining its accurate quantity	Chiu, Norman	30	10:15 AM 10:45 AM
7	24	Novel protein-DNA interactions introduced by missense mutations in the transcription factor PU.1	Poon, Gregory	30	10:45 AM 11:15 AM
8	25	Interactions of a conserved arginine-rich bridge helix of Cas12a with RNA and DNA regulate DNA cleavage competent conformation	Rajan, Rakhi	30	11:15 AM 11:45 AM
9		Announcements		5	11:45 AM 11:50 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Fun in the Sun with Light Absorbing and Emitting Molecules and Materials
SESSION TYPE: Oral
SESSION LOCATION: Magnolia C
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 11:35 AM
SESSION HOST: Organizer: Daniel Harrison
Organizer: Caleb Brown
Presider: Daniel Harrison
Presider: Caleb Brown

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	8:00 AM 8:05 AM
2	33	Solar hydrogen production under the Caribbean sun	Colón, Jorge	25	8:05 AM 8:30 AM
3	38	Fine-tuning physical and photophysical behavior of iridium terpyridine complexes with 4′-aryl substituents	Harrison, Daniel	25	8:30 AM 8:55 AM
4		Intermission		30	8:55 AM 9:25 AM
5	35	New design strategies of near-infrared photothermal conversion organic cocrystals	Feng, Yuanning	25	9:25 AM 9:50 AM
6	36	Functional fungi: Solution-processable, fungal-derived ETLs for organic electronics	Ati-Tay, Lynnette	25	9:50 AM 10:15 AM
7		Intermission		30	10:15 AM 10:45 AM
8	37	Synthesis of diphenylaminopyridinophane sensors for active detection of amines	Pensenstadler, Matthew	25	10:45 AM 11:10 AM
9	34	Structural insights into metal ion linked molecular multilayers using polarized spectroscopy	Hanson, Kenneth	25	11:10 AM 11:35 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Functional Polymers: Synthetic Methodologies and Applications
SESSION TYPE: Oral
SESSION LOCATION: Citrus B
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Nicolay Tsarevsky
Organizer: Mihaela Stefan
Presider: Nicolay Tsarevsky
Presider: Mihaela Stefan

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory remarks		5	8:00 AM 8:05 AM
2	26	Synthesis of cyclic-cycloolefin polymers	Sever, Courtney	30	8:05 AM 8:35 AM
3	27	Exploring isotacticity outside of typical polyolefins	Kennemur, Justin	30	8:35 AM 9:05 AM
4	28	From polymerization to assembly: harnessing charge patterns to tune aqueous micellar assemblies	Zhang, Donghui	30	9:05 AM 9:35 AM
5	29	Branched polymers containing reactive functional groups: Synthetic methodologies and applications	Tsarevsky, Nicolay	30	9:35 AM 10:05 AM
6		Intermission		25	10:05 AM 10:30 AM
7	30	Amphiphilic polycaprolactone diblock copolymers for drug delivery of anticancer drugs	Stefan, Mihaela	30	10:30 AM 11:00 AM
8	31	Silyl ethers as key functional groups in degradable polymers	Son, David	30	11:00 AM 11:30 AM
9	32	Hyper crosslinked polyetherimide via Friedel—Crafts acylation and dehydrochlorination	Thompson, Connor	30	11:30 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Biochemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus A
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Daniel Sprague

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	39	Protein identification and characterization via binding based proteomic profiling (BBPP) of fatty acid amides in *Drosophila melanogaster*	McCalla, Imani	20	8:00 AM 8:20 AM
2	40	Benzothiazole sulfones as tools for peptide modification	Shugrue, Christopher	20	8:20 AM 8:40 AM
3	41	Membrane interacting proteins are primed for secondary nuclear functions via DNA-interactions	Petersen, Kelly	20	8:40 AM 9:00 AM
4	42	Development of right-handed helical sulfonyl-γ-AA peptidomimetics as antimicrobial agents against multidrug-resistant bacterial pathogens	zhao, xue	20	9:00 AM 9:20 AM
5	43	Accurate thermodynamics for the binding beween estrogen related receptor (alpha) and inverse agonists with theroretical methods	Wang, Yixuan	20	9:20 AM 9:40 AM
6	44	Senescence in aged mice models of type 2 diabetes mellitus	Kwitchoff, Drew	20	9:40 AM 10:00 AM
7		Break		40	10:00 AM 10:40 AM
8	45	Spectroscopy and elucidating the etiology of cataracts and dry eye	Borchman, Douglas	20	10:40 AM 11:00 AM
9	46	Substitution of K339 with methionine modulates Zn^{2+}-substrate ionization in D-2-hydroxyglutarate dehydrogenase	Moni, Bilkis Mehrin	20	11:00 AM 11:20 AM
10	47	Mechanistically distinct fluoride transport pathways in the Fluc homodimer channels revealed by MD	Montalvillo, Fernando	20	11:20 AM 11:40 AM
11	48	Development of noncovalent inhibitors by targeting functional, membrane-bound GPx4	Smith, Mackenzie	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Organic Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus B
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Liangyong Mei

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	49	One-pot synthesis of bridge-functionalized pillararenes using cyclic acetals	Tyagi, Ujjawal	20	8:00 AM 8:20 AM
2	50	Cross carbonyl-olefin metathesis (XCOM) of unactivated olefins	Wu, Jason	20	8:20 AM 8:40 AM
3	51	Confinement-controlled reactivity of Dispiro-3-Thioxocyclobutanones in a water-soluble molecular cage	Kumar, Abhishek	20	8:40 AM 9:00 AM
4	52	A dual-targeting probe for real-time tracking of therapy-induced senescence	Chen, Zixin	20	9:00 AM 9:20 AM
5	53	The chemistry behind fluorescent probes for carbon monoxide: Is seeing believing?	Liu, Dongning	20	9:20 AM 9:40 AM
6	54	One-pot alkylations of ketones, indoles, and benzofurans with arylmethyl carboxylates	Downey, Chiles	20	9:40 AM 10:00 AM
7		Break		20	10:00 AM 10:20 AM
8	55	Radical-induced remote boron translocation	Xu, Menghua	20	10:20 AM 10:40 AM
9	56	Diels-Alder reaction between electron-rich partners via Lewis acid catalyst	Qureshi, Muhammad Taha	20	10:40 AM 11:00 AM
10	57	Metalation and capture of heterocycles at remote landscapes	Thomas, Andy	20	11:00 AM 11:20 AM
11	58	Endo-fights: a study of antifungal secondary metabolites from mangrove derived endophytic fungi of the everglades	Cruz-Rosa, Ezequiel	20	11:20 AM 11:40 AM
12	59	Synthesis of value-added carbocycles and heterocycles	Yuan, Yu	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Medicinal Chemistry of Heterocycles and Natural Products: Driving Drug Discovery
SESSION TYPE: Oral
SESSION LOCATION: Cypress A
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 11:50 AM
SESSION HOST: Organizer: Siva Panda
Presider: Siva Panda

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	8:00 AM 8:05 AM
2	60	Unlocking bioactive scaffolds: The synergy of heterocycles and natural products in medicinal chemistry	Panda, Siva	30	8:05 AM 8:35 AM
3	61	Tales from the dark side: Antiarrhythmic drug development leveraging the cyclic oligomeric depsipeptide *ent*-verticilide	Johnston, Jeffrey	30	8:35 AM 9:05 AM
4	62	Carbon Monoxide: How much do we know about this smallest organic natural product?	Wang, Binghe	30	9:05 AM 9:35 AM
5		Coffee Break		15	9:35 AM 9:50 AM
6	63	Targeting hyaluronic acid for therapy in benign and malignant disease pathologies	Lokeshwar, Vinata	30	9:50 AM 10:20 AM
7	64	Development of multi-kinase inhibitors for the treatment of non-small cell lung cancer	Murru, Siva	30	10:20 AM 10:50 AM
8	65	Evaluation of [^{18}F]F-CNPI in GSK-3β transgenic mouse model	Pandey, Mukesh	30	10:50 AM 11:20 AM
9	66	Quests to find safe drugs to cure malignant cancers-potions, spices, apple peels, and by smart medicinal chemists	Lokeshwar, Bal	30	11:20 AM 11:50 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Novel Bioconjugation Techniques - A Melting-pot for Nanomedicine, Organic Chemistry, and Chemical Biology
SESSION TYPE: Oral
SESSION LOCATION: Magnolia A
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 12:05 PM
SESSION HOST: Organizer: Qian Wang
Organizer: Jun Ohata
Presider: Qian Wang
Presider: Jun Ohata

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	67	Exploiting the tunable reactivity of *N*-aryl peptides in oxidative couplings	Proulx, Caroline	25	8:00 AM 8:25 AM
2	68	Boron chemistry in organic synthesis and bioconjugation	Xu, Shiqing	25	8:25 AM 8:50 AM
3	69	Simplifying peptide chemistry: Minimalist “C1” linkers for lysines	Chen, Gong	25	8:50 AM 9:15 AM
4	70	Exogenous chemistry used to selectively read sequence-defined oligourethanes that control a Python program	Park, Hyun Meen	15	9:15 AM 9:30 AM
5	71	Reactive oxygen species (ROS)-sensitive drug delivery: Back to the fundamentals	Bansal, Shubham	15	9:30 AM 9:45 AM
6		Coffee Break		10	9:45 AM 9:55 AM
7	72	Phenylalanine-targeting bioconjugation through mechanochemistry	Ohata, Jun	25	9:55 AM 10:20 AM
8	73	Chemoselective cysteine reengineering	Wang, Fang	25	10:20 AM 10:45 AM
9	74	Leveraging the unique (photo)reactivity of aromatic cations for chemical biology	Taylor, Michael	25	10:45 AM 11:10 AM
10	75	Lysine-targeting fluorescent probes enable sensitive detection and proteomic analysis of protein aggregation	Sato, Shinichi	25	11:10 AM 11:35 AM
11	76	Development of photoredox labeling technology for PET agent construction	Li, Zibo	25	11:35 AM 12:00 PM
12		Conclusion Remark		5	12:00 PM 12:05 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Oral
SESSION LOCATION: Harbor A
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Brooke Van Horn

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	77	Multifunctional MOF-polymer composites: From materials design to catalytic detoxification of warfare agents	Rahman, Aman	15	8:00 AM 8:15 AM
2	78	Synthesis and reactivity of an unsaturated organometallic diosmium complex	Powell, Gregory	15	8:15 AM 8:30 AM
3	79	Machine learning regression to predict the formation energy of ternary metal oxides	Belden, Nicholas	15	8:30 AM 8:45 AM
4	80	Nanocrystalline films of iron(III) oxide obtained using Pluronic polymers	Markovcic, Joseph	15	8:45 AM 9:00 AM
5	81	Urolithin B via a Hurtley reaction	Crabtree, Evangeline | Lee, Robert	15	9:00 AM 9:15 AM
6	82	Thiolate mediated silyl ether exchanges for dynamic polymer synthesis	Vargo, Andrew	15	9:15 AM 9:30 AM
7	83	Silyloxyalkylation of 1,3-disubstituted indoles promoted by trimethylsilyl trifluoromethanesulfonate	Zhou, Eric	15	9:30 AM 9:45 AM
8	84	NMR study of the keto-enol tautomerization of 1,3-dicarbonyl compounds	Swing, Bella	15	9:45 AM 10:00 AM
9		Break		30	10:00 AM 10:30 AM
10	85	Urolithin A Via Ullmann coupling	Foote, Abigail | Lee, Robert	15	10:30 AM 10:45 AM
11	86	Deamidation-inspired N27D substitution modulates Aβ42 aggregation kinetics and microglial response	Ramaswamy, Pranay	15	10:45 AM 11:00 AM
12	87	Lipid-like Nanoparticles: Expanding scope and biocompatibility via the Curtius rearrangement	Marmande, Mary Helene	15	11:00 AM 11:15 AM
13	88	Side-chain deamidation affects amyloid-beta 42 aggregation kinetics and modulates cellular response	Song, Sophia	15	11:15 AM 11:30 AM
14	89	Mu-opioid receptor retains its activation dynamics in aqueous environments	Walls, Calixte	15	11:30 AM 11:45 AM
15	90	Arrestin Development: Trp336-targeted ligands exploring tunable β-arrestin signalling in drug molecules	Bluestein, Aryeh	15	11:45 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Women in STEM
SESSION TYPE: Oral
SESSION LOCATION: Cypress B
SESSION START TIME: Sun 10/26/2025 8:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Organizer: Anne Gorden
Organizer: Vasileios Anagnostopoulos
Presider: Fanny Liu

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	91	Interfacial hydrophilicity controls mineral transformation outcomes for enstatite and amorphous $MgSiO_3$	Aguila-Ames, Briana	20	8:00 AM 8:20 AM
2	92	Design and synthesis of ULK3 inhibitors as chemical probes to study ULK3 driven biology in cancer	Humphrey, Briley	20	8:20 AM 8:40 AM
3	93	Calmodulin enhancement of calcium uptake in isolated cardiac mitochondria	Garcia, Sara	20	8:40 AM 9:00 AM
4	94	Re-examining the sulfo-phospho-vanillin assay (SPVA) for total lipid quantification: Evidence for a mechanism that expands lipid detection capabilities	Bailey, Laura	20	9:00 AM 9:20 AM
5	95	Substrate specificity and mechanism of RNA cleavage by YloC, an endoribonuclease from *B. subtilis*	Jennings, Ella	20	9:20 AM 9:40 AM
6	96	Organocatalyzed addition of masked acyl cyanides to nitroalkenes	Pigza, Julie	20	9:40 AM 10:00 AM
7		Break		20	10:00 AM 10:20 AM
8	97	Synthesis, characterization and reactivity of Mn and Fe complexes with a n-based pentadentate ligand	Garcia Bermudez, Maria Fernanda	20	10:20 AM 10:40 AM
9	98	Advancing hydrogen storage capabilities in solid-state materials driven by ferroelectricity	Hanna, Lauren	20	10:40 AM 11:00 AM
10	99	Elucidating the stability and membrane interactions of disease-causing mutation in GPx4	Walters, Sara	20	11:00 AM 11:20 AM
11	100	Investigation of Fe spin-crossover complexes for surface deposition	Kumar, Divya	20	11:20 AM 11:40 AM
12	101	Biocatalytic strategies for selective oxidations	Hinze, Meagan	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research: Undergraduate Student Research Symposium
SESSION TYPE: Oral
SESSION LOCATION: Pelican Room
SESSION START TIME: Sun 10/26/2025 8:30 AM
SESSION END TIME: Sun 10/26/2025 11:20 AM
SESSION HOST: Organizer: Nicole Lapeyrouse
Organizer: Julie Donnelly
Presider: Nicole Lapeyrouse
Presider: Julie Donnelly

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introduction		5	8:30 AM 8:35 AM
2	102	Students' perceptions and engagement with electronic notebooks in a high-enrollment chemistry course	Handfield, Charabelle	10	8:35 AM 8:45 AM
3	103	Item Writing Flaws Evaluation Instrument and forensic chemistry courses: An analysis of instructor-made multiple choice assessments	Rios, Gabrielle	10	8:45 AM 8:55 AM
4	104	Advantages and disadvantages; Students perception of their STEM major	Barnett, Macayla	10	8:55 AM 9:05 AM
5	105	Exploring canvas mastery paths and its impact in general chemistry	Libos, Paula	10	9:05 AM 9:15 AM
6	106	Peer-assisted learning: Student and learning assistant perspectives from a forensic chemistry course	Ghasseminia, Laila	10	9:15 AM 9:25 AM
7		Break		10	9:25 AM 9:35 AM
8	108	Investigating factors that can impact Engineering students' relationship to their major	Barrineau, Hannah	10	9:35 AM 9:45 AM
9	109	Training learning assistants using AI	Smith, Griffen	10	9:45 AM 9:55 AM
10	110	Content analysis of multiple-choice questions in forensic chemistry	Khogali, Fatima	10	9:55 AM 10:05 AM
11	111	Analysis of body site instrument efficacy for the detection of anxiety through the use of the galvanic skin response	Guerrero, Elisa	10	10:05 AM 10:15 AM
12		Break		10	10:15 AM 10:25 AM
13	112	Resources that students use early in their major to learn about becoming a future forensic scientist	Scorpio, Massimiliano	10	10:25 AM 10:35 AM
14	113	Study of group cohesion in a team-based learning style general chemistry 2 course	R, Alex	10	10:35 AM 10:45 AM
15	114	How does student interaction, facilitated through a shared electronic notebook, influence learning experiences in a large-enrollment STEM classroom?	Sebastien, Daniel	10	10:45 AM 10:55 AM
16	115	Investigating perceptions of disabled students' engagement and motivation in flipped organic chemistry and biochemistry courses	Chee-Awai, Amanda	10	10:55 AM 11:05 AM
17	116	Resources used in academic and career development for engineering majors enrolled in a Principles of Chemistry course	John, Adam	10	11:05 AM 11:15 AM
18		Closing remarks		5	11:15 AM 11:20 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Curricular Innovations in Chemistry Education: Integrating Professional Skills and Interdisciplinary Experiences
SESSION TYPE: Oral
SESSION LOCATION: Harbor C
SESSION START TIME: Sun 10/26/2025 8:30 AM
SESSION END TIME: Sun 10/26/2025 11:30 AM
SESSION HOST: Organizer: Ghada Rabah
Organizer: Jeremiah Feducia
Organizer: Michelle Brooks
Presider: Ghada Rabah
Presider: Jeremiah Feducia
Presider: Michelle Brooks

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	8:30 AM 8:35 AM
2	117	ACS guidelines emphasize the cultivation of essential skills for students earning bachelors degrees	Brooks, Michelle	20	8:35 AM 8:55 AM
3		Q&A Transition		10	8:55 AM 9:05 AM
4	118	Going beyond content knowledge: Using the ELIPSS skill rubrics to align outcomes, activities, and assessment to promote professional skill development	Lantz, Juliette	20	9:05 AM 9:25 AM
5		Q&A Transition		10	9:25 AM 9:35 AM
6	119	Scaffolded approach to student support and skills development in the chemistry major: Professional skills, student engagement and retention	Wasileski, Sally	20	9:35 AM 9:55 AM
7		Q&A Transition		10	9:55 AM 10:05 AM
8	120	Bridging organic chemistry teaching labs and real-world research with computing applications	Camp, Davita	20	10:05 AM 10:25 AM
9		Q&A Transition		10	10:25 AM 10:35 AM
10	121	Increasing student understanding and technical skills in instrumental analysis: piloting a student-led instrument deconstruction with a decommissioned ICP-MS	Zimmermann, Kathryn	20	10:35 AM 10:55 AM
11		Q&A Transition		10	10:55 AM 11:05 AM
12	122	Broad deployment of productive undergraduate research outside of CUREs	Stolley, Ryan	20	11:05 AM 11:25 AM
13		Q&A Transition		5	11:25 AM 11:30 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Recent Advances in Hybrid Semiconductors
SESSION TYPE: Oral
SESSION LOCATION: Flamingo Room
SESSION START TIME: Sun 10/26/2025 8:30 AM
SESSION END TIME: Sun 10/26/2025 10:45 AM
SESSION HOST: Organizer: Ioannis Spanopoulos
Organizer: Vladislav Klepov
Presider: Anand Tiwari

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	123	Granting higher thermal and environmental stability for metal halide semiconductors through a single atom substitution	Azmy, Ali	15	8:30 AM 8:45 AM
2	124	Spray-deposition of alkylammonium spacer cation advancing the stability and scalability of perovskite photovoltaics	Sahani, Rishabh	15	8:45 AM 9:00 AM
3	125	Designing air- and water-stable tin halide complexes with [2.2.2] cryptand for functional materials	Bagherifard, Mina	15	9:00 AM 9:15 AM
4	126	Development of functional porous magnetic hybrid metal halides	Elolimy, Magdy	15	9:15 AM 9:30 AM
5		Intermission		15	9:30 AM 9:45 AM
6	127	Microwave-assisted synthesis of water-stable phosphine-bismuth halide semiconductors with photo-selective antifungal activity	Anderson, Alissa	15	9:45 AM 10:00 AM
7	128	Synthesis of functionalized cryptands for stable hybrid halide perovskite materials	Tariq, Neelam	15	10:00 AM 10:15 AM
8	129	Transition metal-based metal halide semiconductors for selective carbon dioxide photoreduction	Nassar, Kamal Eldeen	15	10:15 AM 10:30 AM
9	130	Synthesis and host–guest functionality of porous lead iodide metal halides featuring biphenyl amide-Tris ligands	Dean, Charles	15	10:30 AM 10:45 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancements in Nuclear Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus C
SESSION START TIME: Sun 10/26/2025 9:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Deborah Penchoff
Organizer: Vasileios Anagnostopoulos
Presider: Deborah Penchoff

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	9:00 AM 9:05 AM
2	131	Recent advances in solid post-detonation nuclear forensic benchmarking materials	Cooper, Justin	20	9:05 AM 9:25 AM
3	132	Iron extraction by crown ethers: Mechanistic insight for nuclear forensic applications	Forbes, Madeleine	20	9:25 AM 9:45 AM
4	133	Influence of polymer fiber chemistry on ionization efficiency for plutonium isotope ratio measurements by TIMS	Folkes, Kylie	20	9:45 AM 10:05 AM
5	134	Developing preorganized chelators for selective separations of nuclear fission products	Heflin, Jacob	20	10:05 AM 10:25 AM
6		Intermission		10	10:25 AM 10:35 AM
7	135	Radioisotope production and application of Ac-225 at Oak Ridge National Laboratory	Benny, Paul	20	10:35 AM 10:55 AM
8	136	Actinium and lanthanum complexation for applications in radiotherapeutics	del Barrio, Caroline	20	10:55 AM 11:15 AM
9	137	Analytical chemistry for isotope separation and impurities for tritium processing	Kelly, John	20	11:15 AM 11:35 AM
10	138	Inferring the history of irradiated uranium using intra-elemental ratios	Folden, Charles	20	11:35 AM 11:55 AM
11		Closing Remarks		5	11:55 AM 12:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Workshop: ACS Career Pathways “Working for Yourself: Your Idea, Your Business, and Your Marketing Strategy"
SESSION TYPE:	Workshop
SESSION LOCATION:	Royal 1
SESSION START TIME:	Sun 10/26/2025 9:00 AM
SESSION END TIME:	Sun 10/26/2025 11:00 AM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancing Extraction and Separation Techniques for Food and Environmental Analysis
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 10:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Ngee Chong
Organizer: Yong Foo Wong

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	139	Wastewater-based epidemiology for the estimation of consumption of selected opioids in the City of Cookeville using UPLC-QToF mass spectrometry	Ifedayo, Oluwasola	0	10:00 AM 12:00 PM
2	140	Optimized sustainable dyeing of wool with *Rubia Tinctorum* L. using ultrasound technology	Chajii, Oumaima	0	10:00 AM 12:00 PM
3	141	Sustainable extraction, spin coating, and characterization of M. aquifolium epicuticular wax coatings	Smith, Jacob	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Bioinorganic Chemistry in the Southeast and Southwest Regions of ACS
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 10:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Jonathan Caranto

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	142	Mechanistic study of the *Mycobacterium kansasii* (*Mka*) HLP NO peroxidase pathway	Jennings, Sarah	0	10:00 AM 12:00 PM
2	143	Utilizing dinuclear and mononuclear ruthenium(II) polypyridyl complexes as potential photosensitizers for photodynamic therapy	Antoine, Nehemiah	0	10:00 AM 12:00 PM
3	144	NO cryophotolysis to trap pathway intermediates of nitrosative stress protection enzymes	Kumar, Arun	0	10:00 AM 12:00 PM
4	145	Screening for the Biodegradation of 2-(nitroamino)ethanol Using the Protein *Mr N*-nitroglycine Lyase A	Dietrick, James	0	10:00 AM 12:00 PM
5	147	Versatile fluorescence polarization-based probe scaffold for metalloprotein metalation state studies and inhibitor screening	Hudson, Dorothea	0	10:00 AM 12:00 PM
6	148	Synthesis and application of Ni(II) CNC-pincer catalysts for carbon dioxide photoreduction to renewable energy sources	Ahmed, Md Kausar	0	10:00 AM 12:00 PM
7	149	Identification of the NnlA active site that degrades the nitramine natural product, N-nitroglycine	Strickland , Kara	0	10:00 AM 12:00 PM
8	150	Label free metal carbonyl complexes for cellular imaging and pH probing using infrared spectroscopy	Muthama, David	0	10:00 AM 12:00 PM
9	151	Anaerobic circular dichroism reveals substrate induced stabilization and active site reorganization upon oxygen activation in *Cth*EgtB	Rodriguez, Kassidy	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Physical Chemistry
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 10:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	152	Non-equilibrium composition of mixed metal hydroxide membranes grown in flow systems	Cooper, Maggie	0	10:00 AM 12:00 PM
2	153	Characterizing the response of light-harvesting to growth under red light in Chaetoceros diatoms	Salaz, Kaiden	0	10:00 AM 12:00 PM
3	154	First principles pressure-dependent band gap calculation of cubic metal oxides for thermoelectric materials discovery	Isse, Abdullahi	0	10:00 AM 12:00 PM
4	155	Machine-learning molecular properties using a transferable, physical descriptor	Abadie, David	0	10:00 AM 12:00 PM
5	156	Genetic Algoritm for optimizing a function: Application to chemical problems of structure optimization	Haigler, JeNia	0	10:00 AM 12:00 PM
6	157	Differential Scanning Calorimteric (DSC): study to understand Thermal properties of a mixture of polymer with different molecular weight	Leverette, Kimora	0	10:00 AM 12:00 PM
7	158	Exploring potential energy surface to determine the stationary points and the trajectories connecting these points	Wiley, Kamili	0	10:00 AM 12:00 PM
8	159	Understanding soft-hard acid-base principle based on quantum mechanical calculations	Jones, Anthony	0	10:00 AM 12:00 PM
9	160	Multi-frequency EPR characterization of spin qubits in molecular magnet frameworks	Weaver, Sherwood	0	10:00 AM 12:00 PM
10	161	Vibrational spectra of 2-hydroxylacetonitrile and hydroxylproponitrile isomers and thermochemistry of the two cyanohydrin molecules	Cummins, Ethan	0	10:00 AM 12:00 PM
11	162	Automated construction of enzyme active site cluster models from molecular dynamics snapshots with the RINRUS toolkit	Wappett, Dominique	0	10:00 AM 12:00 PM
12	163	Investigation of a particle-in-a-bumpy-box with Excel	Hall, James	0	10:00 AM 12:00 PM
13	164	Implications of the bending in half-sandwich complexes: Assessing competing models	Di Carlo, Brice	0	10:00 AM 12:00 PM
14	165	Theoretical electronic spectroscopy of gas phase transition metal acetylide cations ($MCCH^+$, M = Sc,., Zn)	Sasi, Haritha Kolavathra	0	10:00 AM 12:00 PM
15	166	PHAST 2.0: Development and applications of an advanced polarizable force field for metal-organic frameworks	Ritter, Logan	0	10:00 AM 12:00 PM
16	167	Symmetry breaking in Hartree-Fock: Non-collinear spins and complex wavefunctions	Ward, Matthew	0	10:00 AM 12:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Grad Fair
SESSION TYPE:	Networking Event
SESSION LOCATION:	Majestic Ballroom
SESSION START TIME:	Sun 10/26/2025 10:00 AM
SESSION END TIME:	Sun 10/26/2025 5:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: PMSE/POLY Poster Session
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 10:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Reza Foudazi

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	168	Development of thermally Reprocessable and self-healing epoxy vitrimer using epoxidized hemp seed oil and dynamic covalent imine bonds	Patel, Varshikkumar	0	10:00 AM 12:00 PM
2	169	Stepwise synthesis of mononuclear, dinuclear, unprecedented trinuclear rhenium oxo - pyrazolato complex and a 2D polymer	Nnamani, Johnson	0	10:00 AM 12:00 PM
3	170	Aerogels from polydicyclopentadiene and its copolymers	Cravey, Julia	0	10:00 AM 12:00 PM
4	171	ROMP & Roses: A tactical approach to precision polyolefins	Deloso, Laura	0	10:00 AM 12:00 PM
5	172	Orthogonal polymerization and characterization of recyclable elastomers from lipoic acid derivatives	whitten, nicholas	0	10:00 AM 12:00 PM
6	173	High dielectric constant polyolefins by ADMET polymerization	Cohen, Ellie	0	10:00 AM 12:00 PM
7	174	Stretchable and conductive thin films of PEDOT:PSS/ionic liquid composite for flexible electronics	Abbas, Fatima	0	10:00 AM 12:00 PM
8	175	Blending precise polyelectrolytes with PEO for next generation batteries: Miscibility, conductivity, and transference values near unity	Womack, Charles	0	10:00 AM 12:00 PM
9	176	Measuring the tensile strength of cellulose parts printed using room-temperature ionic liquids	Duranty, Edward	0	10:00 AM 12:00 PM
10	177	Ultrafiltration membranes from polymerized lyotropic liquid crystals for mAb purification	Tabatabaei, Seyed Mostafa	0	10:00 AM 12:00 PM
11	178	Visible light 3D printing of polymeric microneedles	Hoffman, Imogen	0	10:00 AM 12:00 PM
12	179	Calculation of shielding effectiveness of eight ultraviolet-curable polymers for galactic cosmic rays in the lunar environment	Harris, Dawn	0	10:00 AM 12:00 PM
13	180	Toward scalable alpha-olefin production from high-density polyethylene waste	Corbel, Sophie	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Recent Advances in the Chemistry of Multinuclear Transition Metal Complexes
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 10:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Michael Stollenz

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	181	New synthetic strategies for diruthenium(II,II) tetra(trifluoroacetate)	Tisdale, George	0	10:00 AM 12:00 PM
2	182	Integration of *p*-Block and *f*-Block Metals into metal atom chain complexes toward the development of single-molecule magnets	Mangas, Luke	0	10:00 AM 12:00 PM
3	183	Synthesis and reactivity of Chromium PNP complexes	Mukkera, Rajesh	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 10:00 AM
SESSION END TIME: Sun 10/26/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	184	Analysis of the adsorptive properties of clay for heavy metals using X-ray fluorescence: Applications in inorganic chemistry and environmental sciences	Huisman, Rebecca	0	10:00 AM 12:00 PM
2	185	Improving the bioavailability of active pharmaceutical ingredients: X-Ray Diffraction (XRD) and Differential Scanning Calorimetry (DSC) techniques	Williams, Juanita	0	10:00 AM 12:00 PM
3	186	Characterization of gold nanostars for microfluidic surface-enhanced Raman spectroscopy (SERS) substrates	Ghiloria, Nishka	0	10:00 AM 12:00 PM
4	187	Reaction of DNA oligonucleotide duplexes with an oxidized oxo-centered trinuclear Cr(III) carboxylate complex	Atkinson, Elizabeth	0	10:00 AM 12:00 PM
5	188	Development of a framework to interrogate G protein subtype selectivity at the orexin receptor 2	Drozman, Anna	0	10:00 AM 12:00 PM
6	189	Occurrence and distribution of pharmaceuticals in the Chattahoochee River and its tributaries	Stephenson, Garret	0	10:00 AM 12:00 PM
7	190	Investigation on the antibiotic effect of superior-class traditional Chinese medicinal herbs on *Escherichia Coli*	Kassing, Dominic	0	10:00 AM 12:00 PM
8	191	Synthesis and characterization of poloxamers modified with antioxidants	Dowling, Amelia	0	10:00 AM 12:00 PM
9	192	Developing proteolysis-targeting chimeras (PROTACs) for histone deacetylase 8 (HDAC8) degradation: A computation-based drug design approach	Nirob, Faiyaz Mahmud	0	10:00 AM 12:00 PM
10	193	PFAS in environmental media: Applications of Single-Sided NMR	Golding, John	0	10:00 AM 12:00 PM
11	194	Mild and efficient Cs2CO3-promoted synthesis of silyl(dithio-)carbamates and silyl(dithio-)carbonates	Lavigne, Colby	0	10:00 AM 12:00 PM
12	195	Unraveling RNA structural switches in hepatitis C virus: Investigating magnesium-dependent kissing complexes	Williams, Demar	0	10:00 AM 12:00 PM
13	196	SEM and EDS analysis of surface-modified multi-bore CFMs for neurodegenerative disease research	Guillen Pacheco, Valentina	0	10:00 AM 12:00 PM
14	197	Synthesis of new poloxamers using living ring-opening polymerization of epoxides	Gray, Alexandra	0	10:00 AM 12:00 PM
15	198	Efficient and size-controlled synthesis of polydiacetylene liposomes	Taylor, Matthew	0	10:00 AM 12:00 PM
16	199	Towards the total synthesis of epoxyacremostrictin	garrity, reese	0	10:00 AM 12:00 PM
17	200	Spectrophotometric determination of the chelating behavior of metal ions and EDTA encapsulated in sol-gel matrix	Barnes, Carter	0	10:00 AM 12:00 PM
18	201	Synthesis and metathesis polymerization of an acyclic diene ester in the organic chemistry teaching laboratory	Pritchard, Grace | Ranko, Mauro | Konzelman, Jim	0	10:00 AM 12:00 PM
19	202	An analysis of trace metals in coastal surface water samples and ambient particulate matter using ICP-MS	Dominguez, Edith	0	10:00 AM 12:00 PM
20	203	Synthesis, characterization, and bioactivity of alloxan Benzylthiosemicarbazide (ALL-BTSC) and its palladium complex on topoisomerase IIa	Kypri, Jayden	0	10:00 AM 12:00 PM
21	205	Synthesis of an acyclic diene diester from PET and metathesis polymerization in the organic teaching laboratory	Perez-Blanco, Cruz | Mizerak, Graham |	0	10:00 AM 12:00 PM

			Konzelman, Jim		
22	206	Making a molecule: Synthesis of a key fragment for total synthesis of Acremostrictin	Cornwell, Conter	0	10:00 AM 12:00 PM
23	207	Synthesizing hydrazone macrocycles for antimicriobial investigations	Rowe, Kathryn	0	10:00 AM 12:00 PM
24	208	Water-based electrolytes for lithium-ion batteries	Gilchrist, Lafredrick	0	10:00 AM 12:00 PM
25	209	Integrated cyclic voltammetry and atomic absorption spectroscopy for accurate quantification of iron in ferrous sulfate tablets	GARCIA, FERNANDO	0	10:00 AM 12:00 PM
26	210	Quantifying bioactive compounds in kombucha using HPLC analysis	Vereen, Jordan	0	10:00 AM 12:00 PM
27	211	Dissociation pathways and conformational dynamics of SARS-CoV-2 3CLpro inhibitors	Johnson, Quentin	0	10:00 AM 12:00 PM
28	212	Synthesis of a C_3-symmetric Fe–Fe bonded EMAC supported by a hexaanionic scaffolded ligand	Underwood, Alexander	0	10:00 AM 12:00 PM
29	213	Analyzing pH and total acidity across tea types, SCOBY's, and fermentation periods of kombucha	Morisset, Alexis	0	10:00 AM 12:00 PM
30	214	Potential impacts of introducing botanicals to kombucha during secondary fermentation	Holmes, Zion	0	10:00 AM 12:00 PM
31	215	Synthesis and characterization of silicate doped titanium oxide solution based thin films	Cregar, Harlow	0	10:00 AM 12:00 PM
32	216	An initial analysis of the secondary addition of fruit juices and botanicals in black tea kombucha	Budner, Drew	0	10:00 AM 12:00 PM
33	217	Exploring the impact of fruit juices on the secondary fermentation of kombucha	Brummett, Savannah | Budner, Drew	0	10:00 AM 12:00 PM
34	218	Design and synthesis of a chiral-supporting ligand for zinc-catalyzed hydroamination	Rivera, Marc	0	10:00 AM 12:00 PM
35	219	Enzymatic activity and velocity of unique nitrating enzyme CYP450 TxtE	Santiago, Gabriel	0	10:00 AM 12:00 PM
36	220	Synthesizing ortho-functionalized *N*-acyl hydrazones for antimicrobial investigations	Parris, Emma	0	10:00 AM 12:00 PM
37	221	Synthesis and characterization of crystals from $Bi(NO_3)_3$*$5H_2O$ and tetrafluoroterephthalic acid	Evers, Michael	0	10:00 AM 12:00 PM
38	222	DNA half adder based calculator driven by DNA 4J molecular switches	Canizalez, Andrea	0	10:00 AM 12:00 PM
39	223	Investigating the photophysical properties of protoporphyrin IX for potential use in renewable energy applications	Steinour, Fiona	0	10:00 AM 12:00 PM
40	224	Understanding the function of the human copper transporter 1 protein (hCtr1) through N-terminal model peptide mutants	Ruth, Kaylee	0	10:00 AM 12:00 PM
41	225	Polar potency: Discovering cytotoxic metabolites from the *Rossella sp.* Antarctic glass sponge	Esmaeilian, Arshia	0	10:00 AM 12:00 PM
42	226	Search for antibacterial cyclic peptides: Characterization and evaluation of the antibacterial properties of protein isolates from hemp, okra, and hibiscus seeds	Renard, Kamora	0	10:00 AM 12:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Workshop: NMR - Live Demo, Data Collection, and Problem Solving
SESSION TYPE:	Workshop
SESSION LOCATION:	Royal 1
SESSION START TIME:	Sun 10/26/2025 11:30 AM
SESSION END TIME:	Sun 10/26/2025 12:30 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Women Chemists (WCC) Luncheon
SESSION TYPE:	Networking Event
SESSION LOCATION:	Royal 2
SESSION START TIME:	Sun 10/26/2025 12:00 PM
SESSION END TIME:	Sun 10/26/2025 2:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancements in Catalysis for Sustainable Processes
SESSION TYPE: Oral
SESSION LOCATION: Cypress C
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 4:05 PM
SESSION HOST: Organizer: Christopher Koch
Organizer: Houston Smith
Presider: Christopher Koch
Presider: Houston Smith

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	227	Commercial process development of enlicitide Eastern fragment	Li, Qiuhan	15	1:00 PM 1:15 PM
2	228	In-situ growth of 2D $ZnIn_2S_4$ sheets on 2D Ni-MOF for visible-light-driven rhodamine B degradation and hydrogen evolution	Neves, Juliana	15	1:15 PM 1:30 PM
3	229	Reproducible method for controlled metal deposition in Co/SiO_2 eggshell catalysts	Pimenta, Fernanda	15	1:30 PM 1:45 PM
4	231	Organo iron catalyzed diastereoselective radical cross coupling enabled by chiral vinyl boronate esters	Mukherjee, Poulami	15	1:45 PM 2:00 PM
5	232	Light-driven photo-thermal Cu_2O-Pd hybrid catalyst enabling sustainable Heck coupling	KUMAR, ROSHAN	15	2:00 PM 2:15 PM
6		Break		15	2:15 PM 2:30 PM
7	233	Expanding the library and applications of thiazolo[5,4-d]thiazole (TTz) photocatalysts	Perrell, Thomas	15	2:30 PM 2:45 PM
8	234	Electronic structures of substituted transition metal porphyrins: Applications in electrocatalytic CO_2 reduction	Lane, Emma	15	2:45 PM 3:00 PM
9	235	Visible-light-driven Sonogashira coupling via Mie-resonant Cu_2O and CuO photo-thermal catalysts	Manna, Suchetana	15	3:00 PM 3:15 PM
10	236	Using neutron scattering to investigate important catalysis materials and phenomena	Dolgos, Michelle	15	3:15 PM 3:30 PM
11	237	Visible light-initiated direct C–H functionalization of hydrocarbons mediated by stable Mo(VI) complexes	Ante, David	15	3:30 PM 3:45 PM
12	238	Life cycle assessment of amine-based adsorbents for biogas upgrading to CNG and LNG	Pimenta, Fernanda	15	3:45 PM 4:00 PM
13		Closing Remarks		5	4:00 PM 4:05 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Chemical Patents Workshop: Intellectual Properties for Chemists
SESSION TYPE:	Workshop
SESSION LOCATION:	Royal 1
SESSION START TIME:	Sun 10/26/2025 1:00 PM
SESSION END TIME:	Sun 10/26/2025 5:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Curricular Innovations in Chemistry Education: Integrating Professional Skills and Interdisciplinary Experiences
SESSION TYPE: Oral
SESSION LOCATION: Harbor C
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 5:05 PM
SESSION HOST: Organizer: Ghada Rabah
Organizer: Jeremiah Feducia
Organizer: Michelle Brooks
Presider: Ghada Rabah
Presider: Jeremiah Feducia
Presider: Michelle Brooks

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory remarks		5	1:00 PM 1:05 PM
2	239	Aligning chemical education with industry needs: Key insights from a Chemed summit	Rabah, Ghada	20	1:05 PM 1:25 PM
3		Q&A transition		10	1:25 PM 1:35 PM
4	240	The new chemistry equation: Skills + innovation = opportunity	Mahoney, Ashley	20	1:35 PM 1:55 PM
5		Q&A transition		10	1:55 PM 2:05 PM
6	241	Chemistry Unbound at Emory University: Development and assessment of a novel curriculum	Mulford, Douglas	20	2:05 PM 2:25 PM
7		Q&A transition		10	2:25 PM 2:35 PM
8	242	Using big data to study learning and inform course design in general chemistry	Yaron, David	20	2:35 PM 2:55 PM
9		Q&A transition		10	2:55 PM 3:05 PM
10		Break and Food setup		15	3:05 PM 3:20 PM
11		Panel and discussion		75	3:20 PM 4:35 PM
12		ideation time and closing remarks		30	4:35 PM 5:05 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Florida Organic Faculty
SESSION TYPE: Oral
SESSION LOCATION: Harbor B
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 4:05 PM
SESSION HOST: Organizer: Brett Hemric
Organizer: Ralph Salvatore
Organizer: Ed Turos
Presider: Ralph Salvatore
Presider: Ed Turos

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		10	1:00 PM 1:10 PM
2	243	Photochemical release of bioactive molecules for neurological applications and beyond	Nesnas, Nasri	25	1:10 PM 1:35 PM
3	244	Visible-light-mediated Rose Bengal- or $[Ru(bpy)_3]^{2+}$-catalyzed radical [4+2] cycloaddition: an efficient route to tetrahydrocarbazoles	Mei, Liangyong	25	1:35 PM 2:00 PM
4	245	Formal indolylation of carbonyl compounds	Yuan, Yu	25	2:00 PM 2:25 PM
5		Intermission		20	2:25 PM 2:45 PM
6	246	Hydrosilylation of olefins and alkynes using “pseudo-naked” M(II) cations as catalysts	Wehmschulte, Rudolf	25	2:45 PM 3:10 PM
7	247	TEMPO disproportionation: Applications toward electrophilic oxygenation	Hemric, Brett	25	3:10 PM 3:35 PM
8	248	Catalytic Akermark cyclizations of electron-poor diphenylamines	Brown, Alan	25	3:35 PM 4:00 PM
9		Closing Remarks		5	4:00 PM 4:05 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Frontiers in Nucleic Acids
SESSION TYPE: Oral
SESSION LOCATION: Magnolia B
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 5:00 PM
SESSION HOST: Organizer: Jessica Siemer
Organizer: Markus Germann
Organizer: Yulia Gerasimova
Organizer: Dmitry Kolpashchikov
Presider: Jessica Siemer
Presider: Markus Germann
Presider: Yulia Gerasimova
Presider: Dmitry Kolpashchikov

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks/Setup		15	1:00 PM 1:15 PM
2	249	DNA advanced high-plex imaging for spatial transcriptomics in cells and tissues	Hong, Fan	30	1:15 PM 1:45 PM
3	250	Spatial organization of silver nanoclusters for antibacterial treatments	Skelly, Elizabeth	30	1:45 PM 2:15 PM
4	251	Discovery of selective inhibitors of *Staphylococcus aureus* ribonuclease P by *in vitro* high throughput screening	Harris, Michael	30	2:15 PM 2:45 PM
5		Coffee Break		25	2:45 PM 3:10 PM
6	252	Register-shifted structures in uracil:adenine and uracil:guanine base paired DNA	van der Vaart, Arjan	30	3:10 PM 3:40 PM
7	253	Capturing RNA dynamics: From chemical probing to high-throughput genomics	Hagler, Lauren	30	3:40 PM 4:10 PM
8	254	RNA and protein: A match made in the Hadean	Williams, Loren	45	4:10 PM 4:55 PM
9		Announcements		5	4:55 PM 5:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Fun in the Sun with Light Absorbing and Emitting Molecules and Materials
SESSION TYPE: Oral
SESSION LOCATION: Magnolia C
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 4:35 PM
SESSION HOST: Organizer: Daniel Harrison
Organizer: Caleb Brown
Presider: Daniel Harrison
Presider: Caleb Brown

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	1:00 PM 1:05 PM
2	255	A new metal-ester covalent bonding motif for Ru(II) sensitizers on metal oxides leads to increased surface loadings	Vannucci, Aaron	25	1:05 PM 1:30 PM
3	256	Modeling fluorescence intermittency in Nile Red derivatives for single-molecule nano-reporting	Steinman, Benjamin	25	1:30 PM 1:55 PM
4		Intermission		30	1:55 PM 2:25 PM
5	257	Tunneling and spin inversion observed as C-H bond activation energy lowering quantum dynamic features in Co^{+} mediated chemistry	Bellert, Darrin	25	2:25 PM 2:50 PM
6	258	Chasing ruthenium: A titanocene photosensitizer with a microsecond emission lifetime	Wagenknecht, Paul	25	2:50 PM 3:15 PM
7		Intermission		30	3:15 PM 3:45 PM
8	259	Predicting photophysical properties of cyclometalated Ir complexes using a ligand-based machine learning model	Brown, Caleb	25	3:45 PM 4:10 PM
9	260	Photochromic materials and application	Li, Yingchun	25	4:10 PM 4:35 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Biochemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus A
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 5:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Tanei Ricks

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	261	Mithramycin 2′-oximes targeting EWS-FLI1: From initial derivatization to potent and selective second-generation analogues for Ewing sarcoma	Shrestha, Aarajana	20	1:00 PM 1:20 PM
2	262	PFAS recognition by lipid transport proteins: Structural and biochemical insights from FABP4 and SCP2	Birchfield, Aaron	20	1:20 PM 1:40 PM
3	263	Rational design of sulpho-γ-AA peptides as cMyb mimics for disruption of of cMyb- KIX interaction	Win, Yu Yu	20	1:40 PM 2:00 PM
4	264	Halogen bonding stability in damaged DNA base-pairs	Hebeka, Ela	20	2:00 PM 2:20 PM
5	265	Effects of simulated digestion on the ACE-inhibitory activity and secondary structure of peanut protein hydrolysate	Yu, Jianmei	20	2:20 PM 2:40 PM
6	266	Regulation of osteoclast differentiation and arthritis inflammation by itaconate and its derivatives	Szabo, Sarah | Chand, Arzina	20	2:40 PM 3:00 PM
7	267	Large-scale production of active human heparanase	Scharland, Derrik	20	3:00 PM 3:20 PM
8		Break		20	3:20 PM 3:40 PM
9	268	Modeling uncertainty and generative design using acetylcholinesterase machine learning models	Harris, Joshua	20	3:40 PM 4:00 PM
10	269	Computational modeling illuminates ion selectivity and transport mechanism in copper transporters	Torabifard, Hedieh	20	4:00 PM 4:20 PM
11	270	Selective antibacterial protein-based metal nanoparticles	Cho, James	20	4:20 PM 4:40 PM
12	271	Transferable skills badging project in pre-nursing GOB courses	Rudd, Gillian | Ross, Mary	20	4:40 PM 5:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Organic Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus B
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 5:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Tyler Adams

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	272	Copper (II)-sensitive dimeric heptamethine cyanine fluorophores: Synthesis, optical characters, and metal sensing studies	Ahmed, Tarek	20	1:00 PM 1:20 PM
2	273	Stereoselective aziridine desymmetrization with carbon nucleophiles	Morgan, Jeremy	20	1:20 PM 1:40 PM
3	274	New avenues in cyclase phase total synthesis	Schuppe, Alexander	20	1:40 PM 2:00 PM
4	275	Synthesis of biologically important Enamino Carbonyl compounds via Ball milling : A mechanochemistry approach	Ndlovu, Maqhawe	20	2:00 PM 2:20 PM
5	276	Highly divergent synthesis of 4-hydroxy-2-pyridone natural products	Cruz, Ricardo	20	2:20 PM 2:40 PM
6	277	The divergent total synthesis of drimane sesquiterpenoids	LeBlanc, Andrew	20	2:40 PM 3:00 PM
7		Break		20	3:00 PM 3:20 PM
8	278	Contaminate-tolerant conversion of polyethylene waste to α-olefin	Posada, Carlos	20	3:20 PM 3:40 PM
9	279	Organic chemistry of the hookah pipe	Lauterbach, John	20	3:40 PM 4:00 PM
10	280	Using a packed-column gas chromatograph as a fixed-bed flow reactor	Wilson, Mark	20	4:00 PM 4:20 PM
11	281	Modular narrow bandgap donor-acceptor-donor diradicaloids based on a strongly electron-deficient acceptor	Smith, Tanner	20	4:20 PM 4:40 PM
12	282	Comparison of structure-property relationships of thermal and rheological properties of molecular gels derived from N-phenyl and N-phenylalkyl Octadecanamides	Mallia, Ajay	20	4:40 PM 5:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Recent Advances in Hybrid Semiconductors
SESSION TYPE: Oral
SESSION LOCATION: Flamingo Room
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 3:40 PM
SESSION HOST: Organizer: Ioannis Spanopoulos
Organizer: Vladislav Klepov
Presider: Ioannis Spanopoulos
Presider: Alissa Anderson

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	283	Two-dimensional hybrid perovskite materials: Fundamentals and applications	Dou, Letian	30	1:00 PM 1:30 PM
2	284	Perovskite solar cells with rapid photonic annealing	Li, Dawen	25	1:30 PM 1:55 PM
3	285	Design of 0D hybrid metal chlorides with efficient emission: Chemical control via long hydrocarbon chains and head shape Engineering	McCall, Kyle	25	1:55 PM 2:20 PM
4		Intermission		15	2:20 PM 2:35 PM
5	286	Ionic liquid-assisted synthesis of hybrid heavy metal zero-dimensional semiconducting cluster compounds with thermochromic properties	Baranets, Sviatoslav	25	2:35 PM 3:00 PM
6	287	Porous metal halide semiconductors for efficient water splitting	Tiwari, Anand P.	20	3:00 PM 3:20 PM
7	1091	Chemical stabilization of cubic halide perovskites	Klepov, Vladislav	20	3:20 PM 3:40 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Oral
SESSION LOCATION: Harbor A
SESSION START TIME: Sun 10/26/2025 1:00 PM
SESSION END TIME: Sun 10/26/2025 5:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Mac Gilliland

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	288	Structural and biochemical characterization of YloC, a novel bacterial endoribonuclease	Khan, Aasim	15	1:00 PM 1:15 PM
2	289	Role of variations in amino acid and nucleotide sequences on AT-hook●DNA complex formation	Kline, Anne Camille	15	1:15 PM 1:30 PM
3	290	Computational prediction of lipophilicity for drug-like molecules	Biaku, Charles	15	1:30 PM 1:45 PM
4	291	Synthesis and biological evaluation of cystobactamid-507 derivatives	Simpson, Abigail	15	1:45 PM 2:00 PM
5	292	Characterizing *Pseudomonas aeruginosa* biofilms using single-sided NMR	Akolatse, Shalom	15	2:00 PM 2:15 PM
6	293	Global analysis of newly synthesized proteins in monocyte and macrophage response to bacterial infection	Arslanbekov, Thais	15	2:15 PM 2:30 PM
7	294	Expanding the EndoUniverse: Structural and biochemical characterization of gamma-coronavirus endoribonuclease Nsp15	Graf, Abigail	15	2:30 PM 2:45 PM
8	295	Analyzing the structural effects of magnesium in carbon mineralization using FT-IR spectroscopy	Kadari, Sahithi	15	2:45 PM 3:00 PM
9		Break		30	3:00 PM 3:30 PM
10	296	Developing an electrochemical metabolite sensor for fetal membrane-on-a-chip applications	Steinfeldt, Bree	15	3:30 PM 3:45 PM
11	297	Mineral identification and critical mineral exploration through field deployable Raman spectroscopy	Perez Castro, Rafael | Dunne, James	15	3:45 PM 4:00 PM
12	298	PFAS contamination in soils from distinct waste disposal practices: Comparative case study of Ibiasoegbe, Nigeria and Statesboro, USA	Ezeanii, Kendra	15	4:00 PM 4:15 PM
13	299	Investigating transformation efficiency of PFAS by dissolved black carbon-derived reactive species	Drummonds, Genell	15	4:15 PM 4:30 PM
14	300	The effect of aluminum sulfate on water toxicity and a comparison of alternative coagulants to remove phosphorus from wastewater	Carnell, Bethany | Lee, Robert	15	4:30 PM 4:45 PM
15	301	Transforming Florida STEM education: Exploring Singaporean information literacy strategies	Le, Han	15	4:45 PM 5:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Medicinal Chemistry of Heterocycles and Natural Products: Driving Drug Discovery
SESSION TYPE: Oral
SESSION LOCATION: Cypress A
SESSION START TIME: Sun 10/26/2025 1:10 PM
SESSION END TIME: Sun 10/26/2025 3:55 PM
SESSION HOST: Organizer: Siva Panda
Presider: Siva Panda

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	302	Rational design of CDK12/13 inhibitors as molecular glues for degradation of cyclin K	Monastyrskyi, Andrii	30	1:10 PM 1:40 PM
2	303	Novel boron chemistry to access diverse boron-containing drug-like scaffolds	Xu, Shiqing	30	1:40 PM 2:10 PM
3	304	Delivery of inhibitors of *Streptococcus mutans* cariogenic biofilms using polymer vesicles	Velu, Sadanandan	30	2:10 PM 2:40 PM
4	305	Mitochondrial uncouplers: Increasing energy expenditure as anti-obesity therapy	Santos, Webster	30	2:40 PM 3:10 PM
5		Coffee Break		15	3:10 PM 3:25 PM
6	306	Advancing synthetic strategies: Development and bioactivity profiling of promising natural and marine-derived therapeutics	Bhagat, Sunita	30	3:25 PM 3:55 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Functional Polymers: Synthetic Methodologies and Applications
SESSION TYPE: Oral
SESSION LOCATION: Citrus B
SESSION START TIME: Sun 10/26/2025 1:15 PM
SESSION END TIME: Sun 10/26/2025 4:50 PM
SESSION HOST: Organizer: Nicolay Tsarevsky
Organizer: Mihaela Stefan
Presider: Nicolay Tsarevsky
Presider: Mihaela Stefan

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory remarks		5	1:15 PM 1:20 PM
2	309	Water-responsive thiol-ene shape memory polymers for biomedical applications: From synthetic design to 3D-printed functionality	Ecker, Melanie	30	1:20 PM 1:50 PM
3	310	Bioactive electrospun polycaprolactone films incorporating gallic acid-loaded mesoporous silica nanoplatelets for seed germination enhancement	An, Changliang	30	1:50 PM 2:20 PM
4	311	Hierarchical pore engineering: Advancing biopolymer networks for extracellular vesicle capture	McDowell, Evan	30	2:20 PM 2:50 PM
5		Intermission		30	2:50 PM 3:20 PM
6	312	Synthetic insoluble organic polymers for mechanically strong and durable cements	Contreras, Elizabeth	30	3:20 PM 3:50 PM
7	313	Tunable photochromism in thiazolothiazole-based polymer films: Reversible behavior and photochromic control using a radical scavenger	Tumpa, Naz Fathma	30	3:50 PM 4:20 PM
8	314	Activated ester polymers as a platform for studying structure–property relationships in functional polymers	Calvo, Patricia	30	4:20 PM 4:50 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Novel Bioconjugation Techniques - A Melting-pot for Nanomedicine, Organic Chemistry, and Chemical Biology
SESSION TYPE: Oral
SESSION LOCATION: Magnolia A
SESSION START TIME: Sun 10/26/2025 1:15 PM
SESSION END TIME: Sun 10/26/2025 4:30 PM
SESSION HOST: Organizer: Qian Wang
Organizer: Jun Ohata
Presider: Qian Wang
Presider: Jun Ohata

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Open Remark		5	1:15 PM 1:20 PM
2	315	Cyclopropanols as bioorthogonal warheads for bioconjugation and biological applications	Wang, Qian	25	1:20 PM 1:45 PM
3	316	Boron enabled bioconjugation chemistries	Gao, Jianmin	25	1:45 PM 2:10 PM
4	317	Aqueous-compatible peptide cyclization: Toward residue- and site-selective reactivity	Roberts, Andrew	25	2:10 PM 2:35 PM
5	318	Vinyl sulfone-based platforms: Advancing targeted radionuclide therapy for prostate cancer	wu, zhanhong	15	2:35 PM 2:50 PM
6		Coffee Break		10	2:50 PM 3:00 PM
7	319	Covalent probes for capturing protein–biomolecule interactions: A systematic comparison study of various covalent functional groups	Yu, Bingchen	25	3:00 PM 3:25 PM
8	320	Advancing covalent ligand discovery beyond cysteine	Hsu, Ku-Lung	25	3:25 PM 3:50 PM
9	321	Selective X–H coupling for peptide and protein chemistry	Ball, Zachary	25	3:50 PM 4:15 PM
10	323	Optimization of labeling reagents and acid catalysts for tryptophan-selective bioconjugation in fluoroalcohols as nonaqueous media	Nuruzzaman, Mohammad	15	4:15 PM 4:30 PM
11		Morning session conclusion		0	4:30 PM 4:30 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancements in Nuclear Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus C
SESSION START TIME: Sun 10/26/2025 1:30 PM
SESSION END TIME: Sun 10/26/2025 4:30 PM
SESSION HOST: Organizer: Deborah Penchoff
Organizer: Vasileios Anagnostopoulos
Presider: Deborah Penchoff

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	1:30 PM 1:35 PM
2	324	Designing neutron irradiation fixtures for advancing radiochemistry research	Johnsen, Amanda	20	1:35 PM 1:55 PM
3	325	Tracing transition metal signatures in uranium dioxide synthesized using a tube furnace: Advancement of nuclear forensics for radiological threats	Rai II, David	20	1:55 PM 2:15 PM
4	326	Laser-induced formation and analytical profiling of surrogate nuclear explosion debris	Burns, Austin	20	2:15 PM 2:35 PM
5	327	Multi-stressor effects of light stress and uranium chemotoxicity on the marine microalgae species, *Isochrysis galbana*: An examination of uranium sorption and physiological response	Gonzales, Annelise	20	2:35 PM 2:55 PM
6		Intermission		10	2:55 PM 3:05 PM
7	328	Crystal clues of transition metal signatures in hydrothermal synthesized uranium dioxide	Hunley, Lucy	20	3:05 PM 3:25 PM
8	329	Studies of uranium redox chemistry using functionalized Titania as photoanodes	Morales Duque, Mariel	20	3:25 PM 3:45 PM
9	330	Radiation-induced polymerization of styrene as a tool for environmental monitoring of ^{137}Cs	Dan, David	20	3:45 PM 4:05 PM
10	331	Guiding the optimization of transition metals separations in nuclear forensics: A computational study	Stieferman, Brittany	20	4:05 PM 4:25 PM
11		Closing Remarks		5	4:25 PM 4:30 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Women in STEM
SESSION TYPE: Oral
SESSION LOCATION: Cypress B
SESSION START TIME: Sun 10/26/2025 1:30 PM
SESSION END TIME: Sun 10/26/2025 4:50 PM
SESSION HOST: Organizer: Christopher Chouinard
Organizer: Anne Gorden
Organizer: Vasileios Anagnostopoulos
Presider: Kari Basso

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	332	What can you really do with a chemistry degree? Exploring innovative paths in analytical chemistry and the nuclear security enterprise	Crandell, Cassidy	20	1:30 PM 1:50 PM
2	333	Setting the stage for one-electron bonding between boron and carbon	Castro Castro, Paula	20	1:50 PM 2:10 PM
3	334	Leveraging PCET activation for intermolecular *O*-functionalization of alkoxy radical intermediates	Kim, Daria	20	2:10 PM 2:30 PM
4	335	Mechanistic basis of the voltage-sensitivity of thiazolothiazole dyes	Chakraborti, Pranamita	20	2:30 PM 2:50 PM
5	336	Dissecting transcriptional regulation of alternative carbon metabolism in *Candida glabrata*	Breen, Meghan	20	2:50 PM 3:10 PM
6		Break		20	3:10 PM 3:30 PM
7	337	Strategic incorporation of molecular photoswitches into FDA-Approved Kinase inhibitors	Colon, Ana	20	3:30 PM 3:50 PM
8	338	Gas diffusion in polyethylene: A molecular radii limitation	Neidhart, Suzanne	20	3:50 PM 4:10 PM
9	339	Cobalt based ^{19}F magnetic resonance imaging agents for redox selective signaling	Scott, Katie	20	4:10 PM 4:30 PM
10	340	Chemical synthesis in space: advances from (photo-)electrochemical water-splitting and CO_2 reduction in reduced gravitation	Brinkert, Katharina	20	4:30 PM 4:50 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Forensic Science
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 2:00 PM
SESSION END TIME: Sun 10/26/2025 4:00 PM
SESSION HOST: Organizer: Matthieu Baudelet
Organizer: Candice Bridge
Organizer: Erin Hanson
Organizer: Tamra Legron-Rodriguez

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	341	Analysis of legal high drugs and other gas station drugs: Determination of drug components and their relative concentrations	Abdelhay, Karim	0	2:00 PM 4:00 PM
2	342	Characterization and targeted recovery of DNA-containing touch deposit human cells for single-cell forensic genetic analysis	Martinez, Vanessa	0	2:00 PM 4:00 PM
3	343	Comparative analysis and identification of silicone based lubricants	Braun, Clarissandra	0	2:00 PM 4:00 PM
4	344	Evolution of VOC profiles during early animal decomposition	Whaley, Fantasia | Dominguez, Sandy	0	2:00 PM 4:00 PM
5	345	Quantitation of heavy metals in Δ8-THC products using ICP-OES	McCarthy, Austin	0	2:00 PM 4:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Analytical Chemistry
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 2:00 PM
SESSION END TIME: Sun 10/26/2025 4:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	346	Analytical Chemistry for Tritium	Kelly, John	0	2:00 PM 4:00 PM
2	347	Analytical Research & Development at Merck: Leveraging diverse expertise to be partners in problem solving	Schwalm, Erica	0	2:00 PM 4:00 PM
3	348	Enhancing disease diagnostics: Development of a sensitive, targeted cellular blood assay via dual phase nanoparticle-mediated separation and atomic emission spectroscopic analysis	McKay, McKenna	0	2:00 PM 4:00 PM
4	349	Release of elements from disposable aluminum cookware during conventional cooking with water	Akhdhar, Abdullah	0	2:00 PM 4:00 PM
5	350	Microfluidic paper based fluorescent sensing device using citric acid derived carbon dots tungsten sulfide spheres for onsite detection of secnidazole	Arif, shan	0	2:00 PM 4:00 PM
6	351	Enhancing mobility assessment: Improving OECD TG 121 for Log Koc determination of fragrance ingredients	Sriyarathne, Dushanee	0	2:00 PM 4:00 PM
7	352	Monitoring the reaction networks of acetaldehyde oxide and glycolaldehyde oxide Criegee intermediates formed in the ozone assisted-oxidation of crotyl alcohol	Pierre Louis, Madgee	0	2:00 PM 4:00 PM
8	353	Enabling structural and functional characterization of AprL aminotransferase: Optimized cofactor reconstitution for antibiotic biosynthesis research	Ajayi, Oluwaseun	0	2:00 PM 4:00 PM
9	354	Electrochemical sensing of cortisol with gold nanoparticle modified CFMs	Page, Ralph J.	0	2:00 PM 4:00 PM
10	355	Detecting amyloid beta oligomers in human cerebrospinal fluid with rapid, inexpensive, single molecule counting buoyant-antigen-magnetic assays	karimpourkalou, zahra	0	2:00 PM 4:00 PM
11	356	Catalyst synthesis via nanodroplets for electrochemical urea decomposition: Application in resource reuse	Llera, Paola	0	2:00 PM 4:00 PM
12	357	Evaluation of a new approach for principal component analysis application in metabolomics studies	Mayonu, Moses	0	2:00 PM 4:00 PM
13	358	Interrogation of toxic metal content in chalksticks and their potential to impact human health	Alaye, Tolulope	0	2:00 PM 4:00 PM
14	359	Photochemical generation of singlet oxygen from tire wear particles in aquatic environments: direct quantification using furfuryl alcohol and high-performance liquid chromatography (HPLC)	Pascal, Chadiska	0	2:00 PM 4:00 PM
15	360	Thermal melting of DNA at gold electrodes with square-wave voltammetry (SWV) and atomic force microscopy imaging (AFM) to confirm Bowtie biosensor integrity and structure	Nwankpa, Ugonna	0	2:00 PM 4:00 PM
16	361	Improving Zn-ion battery performance using CoNiPdPt catalysts	Duran, Alondra	0	2:00 PM 4:00 PM
17	362	Development of an electrochemical biosensor for the detection of serotonin in sweat using metallic alloys	Pinto Ruiz, Jadiel	0	2:00 PM 4:00 PM
18	363	Ionic and non-ionic surfactants direct Zn electrodeposition behavior on graphite electrodes: A fundamental approach to interface control in aqueous Zn-Ion systems	Reyes Morales, Eleries	0	2:00 PM 4:00 PM

19	364	Aptamer-functionalization of gold-modified nanopipettes for the multiplexed electrochemical biosensing of serotonin and dopamine neurotransmitters	Haroun, Lara	0	2:00 PM 4:00 PM
20	365	Using QSRR modeling for predicting the identity of emerging contaminants by LC-MS/MS	Canicatti, Cassandra	0	2:00 PM 4:00 PM
21	366	3D-printed modular microfluidic devices for passive aqueous-in-oil droplet formation, storage, and imaging	Pham, Hieu Minh	0	2:00 PM 4:00 PM
22	367	Advancing 3D-printed modular microfluidic devices to study non-esterified free fatty acid (NEFA) uptake by adipose tissue	Dangol, Sabita	0	2:00 PM 4:00 PM
23	368	Towards enhancement of reusability and real-time sensing with the electrochemical bowtie sensor	Lwamba, Eloge Wakwanyembo	0	2:00 PM 4:00 PM
24	369	Electrochemical-aptamer based (E-AB) biosensors for single cell imaging	Kuttikkat, Mrudula	0	2:00 PM 4:00 PM
25	370	Ion mobility separation of steroid isomers via *N*-acyl imidazole derivatization enabled on a MALDESI source	Zerebinski, Paul	0	2:00 PM 4:00 PM
26	371	Development of a training module for Raman and surface enhanced Raman spectroscopy in field-portable applications	Obietikponah, Chizzy	0	2:00 PM 4:00 PM
27	372	Thermal desorption chamber for amine detection in soil contamination analysis	Cortez, Alicia	0	2:00 PM 4:00 PM
28	373	Polysulfide uv-vis spectroscopy: Investigating inter-operator variance and hemoglobin interactions	Zohne, Eva	0	2:00 PM 4:00 PM
29	374	Mass spectrometry-based assay for mouse IgG N-glycan screening in biofluids	Stratton, Ariana	0	2:00 PM 4:00 PM
30	375	Fabrication of gold nanotriangle arrays and LSPR characterization for biosensing applications	RIVERA, KEIMARYA	0	2:00 PM 4:00 PM
31	376	Enhanced automation of lithium iron phosphate cathode materials preparation	Wiederin, Kevin	0	2:00 PM 4:00 PM
32	377	GC-MS analysis of the hydrocarbons produced by the conversion of animal feed by microbiomes extracted from the gastrointestinal track of porcine and cattle	Miburo, Barry	0	2:00 PM 4:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Glycomaterials for a Sustainable Future
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 2:00 PM
SESSION END TIME: Sun 10/26/2025 4:00 PM
SESSION HOST: Organizer: Alan Esker
Organizer: Maren Roman

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	379	Investigation on the thermal and rheological properties of highly substituted dextran esters	springer, zariyah	0	2:00 PM 4:00 PM
2	380	Hydroxypropyl cellulose-based polymeric micelles for controlled release of hydrogen sulfide	Kearns, Spencer	0	2:00 PM 4:00 PM
3	381	Optimization of building block synthesis via automated flow chemistry	Mont, Owen	0	2:00 PM 4:00 PM
4	382	Molecular dynamics simulations of heparan sulfate in neuronal cell membranes	Caraus, Alexandra	0	2:00 PM 4:00 PM
5	383	Synthesis of glycopolymers containing silver-salts to increase potency and novelty for combatting antibiotic resistance	Zorn, Brockton	0	2:00 PM 4:00 PM
6	384	Enzymatic degradation of starch acetate/poly(d,l-lactic acid) composites	Trexler, Jennifer	0	2:00 PM 4:00 PM
7	385	The synthesis and efficacy of glycosylated resorcin[4]arene cavitand catalysts	Rands, Robert	0	2:00 PM 4:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 2:00 PM
SESSION END TIME: Sun 10/26/2025 4:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	386	Preserving latent prints for forensic use through debris testing: Collaborative project with Bureau of Investigation	Thrower, Samuel	0	2:00 PM 4:00 PM
2	387	Synthesis of nitramines for the inhibition of mycobacterial metabolic enzymes	Casanova, Andrew	0	2:00 PM 4:00 PM
3	388	Discovery and impact of the birth control pill: A literature study	Rahman, Abul	0	2:00 PM 4:00 PM
4	389	Evaluation of synthetic routes to Phenpropylamines	Ford, Hannah	0	2:00 PM 4:00 PM
5	390	Enhancing solar cell efficiency through the alteration of mediator coordination geometry	Wilf, Kayla	0	2:00 PM 4:00 PM
6	391	Determining the alcohol content in foodstuffs using a Vernier Mini GC	Thomas, Rashawn	0	2:00 PM 4:00 PM
7	392	Mechanistic insights into transpersulfidation and hydrogen selenide release in mixed chalcogen compounds using density functional theory	Liu, Leo	0	2:00 PM 4:00 PM
8	393	Development of Thienopyrimidinone-based positive allosteric modulators of the *N*-methyl-D-aspartate receptor	Cirvello, Maia	0	2:00 PM 4:00 PM
9	394	Synthesis of 2-phosphino-1H-pyrroles via pyrrolide intermediates	Kaydos-Daniels, Sylvia	0	2:00 PM 4:00 PM
10	395	Study of catalytic hydroboration of unsaturated molecules using proazaphosphatranes	Hoskins-Harris, Jack	0	2:00 PM 4:00 PM
11	396	Chalcogen polarization and bonding between X_2E—Z complexes: From dative to bridged	Findley, Jonathan	0	2:00 PM 4:00 PM
12	397	Using SPME GCMS to study the impact of a secondary fermentation on volatile and semi-volatile compounds in kombucha	Muja, Erika	0	2:00 PM 4:00 PM
13	398	Comparative analysis of 1,2-Bis(diphenylphosphino)benzene for nickel-catalyzed C-N cross-coupling reactions	Kulmatova, Umay | strauss, lily	0	2:00 PM 4:00 PM
14	399	Nucleophilic additions of beta-Silylallenes and beta-Borylallenes to aldehydes and imines	Adams, Gregory W.	0	2:00 PM 4:00 PM
15	400	Thermodynamic and structural characterization of AT-hook●DNA complexes	Ward, Rachel	0	2:00 PM 4:00 PM
16	401	Synthesis and structural characterization of bifunctional naphthalene derivatives featuring antimony and carbenium moieties	Reynholds, Abigail	0	2:00 PM 4:00 PM
17	402	Dual-targeted nanoparticle based approach addressing lipid accumulation in atherosclerosis to suppress cancer proliferation and enhance chemotherapeutic outcomes	Polkowski, David	0	2:00 PM 4:00 PM
18	403	Simulation-based characterization of two selective JAK3 inhibitors with reversible covalent mechanisms	Herndon, Sierra	0	2:00 PM 4:00 PM
19	404	Computational chemistry investigation of antioxidant activity in phytochemicals from *Morinda citrifolia*	Smith, Jacob	0	2:00 PM 4:00 PM
20	405	Expression and reactivity of Baeyer-Villager Monooxygenases from *Thermobifida fusca* and *Aspergillus flavus*	Walbridge, Sarah	0	2:00 PM 4:00 PM
21	406	Investigating the tautomerization of symmetrical β-diketones in different solvents	Almaatouk, Dania	0	2:00 PM 4:00 PM

22	407	Synthesis of Efavirenz analogs via cycloalkyl side chain modification and ring cyclization	Vargas, Rocco	0	2:00 PM 4:00 PM
23	408	Structure-activity relationships of novel anthelmintic pyrazole derivatives for treating neglected tropical diseases	Barth, Dylan	0	2:00 PM 4:00 PM
24	409	Isolation of nickel(II) complexes with a flexible, bis-carbene ligand	Rodriguez, Christopher	0	2:00 PM 4:00 PM
25	410	Mechanistic investigations of triboluminescent europium and copper complexes	whitfield, william | DeVries, Ella	0	2:00 PM 4:00 PM
26	411	Palladium-catalyzed synthesis of aryl azetidines	Forster, Amelia	0	2:00 PM 4:00 PM
27	412	Synthesis, post-synthetic modification and characterization of Cu@MOF-808 derivatives	Vuong, Mia	0	2:00 PM 4:00 PM
28	413	Retrofitting PMMA with a thermal trigger for efficient depolymerization	Patel, Mansi	0	2:00 PM 4:00 PM
29	414	Synthesis and characterization of amylase modified Au nanoparticles	Pierce, Halle | Suplita, Lydia	0	2:00 PM 4:00 PM
30	415	Evaluating the antimicrobial properties of hemp, okra, and hibiscus seed oils for cosmetic applications	Davis, Yasmin	0	2:00 PM 4:00 PM
31	416	Interaction of heme A synthase with electron transport chain complex III	Craft, Alyssa | Collenberg, Carrie	0	2:00 PM 4:00 PM
32	417	Expression and Reactivity of Baeyer-Villiger Monooxygenases from Thermothelomyces thermophilus and Pseudomonas fluorescens	Salmeron, Natalie	0	2:00 PM 4:00 PM
33	418	Targeting breast cancer: Enhanced antitumor potential of resveratrol analogues	Camina, Matthew | Wiedmar, Sophie	0	2:00 PM 4:00 PM
34	419	Synthesis and characterization of iron polypyrazylborate complexes for application in long-lived charge-separated state photoanodes	Cogswell, Olivia	0	2:00 PM 4:00 PM
35	420	Tuning material properties through depolymerization	Baker, Leah	0	2:00 PM 4:00 PM
36	421	Biocatalytic amination reactions with a silver artificial metalloenzyme	Trivett, Laura	0	2:00 PM 4:00 PM
37	422	Hydroxyl-yne click chemistry as a post-polymerization strategy for dynamic covalent networks	Keown, Payson	0	2:00 PM 4:00 PM
38	423	Solid-phase synthesis and characterization of peptides with noncanonical residues	DeMauro, Julianna	0	2:00 PM 4:00 PM
39	424	Lactoperoxidase as a catalyst in the oxidation of estradiol and its effects on DNA	Melchor, Brie	0	2:00 PM 4:00 PM
40	425	Expression and purification of the recombinant TDP-43 ALS gene	Mieles, Gabriela	0	2:00 PM 4:00 PM
41	426	Comparison of boron nitride-based nanocomposites for oxyanion removal	Schonhoff, Hannah	0	2:00 PM 4:00 PM
42	427	Thermodynamic characterization of Red Fluorescent Protein folding using UV-Vis spectroscopy	Bailey, William	0	2:00 PM 4:00 PM
43	428	Recombinant production of Preptin analogs through targeted DNA mutagenesis	Collins, Shane	0	2:00 PM 4:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	SCC Networking Social
SESSION TYPE:	Networking Event
SESSION LOCATION:	Citrus A
SESSION START TIME:	Sun 10/26/2025 3:30 PM
SESSION END TIME:	Sun 10/26/2025 5:00 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Plenary: Chemists at NASA - from Environmental Studies and Instrumentation Development to the Chief Technologist
SESSION TYPE:	Plenary
SESSION LOCATION:	Royal 2
SESSION START TIME:	Sun 10/26/2025 5:15 PM
SESSION END TIME:	Sun 10/26/2025 6:15 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	SERMACS/SWRM Opening Reception
SESSION TYPE:	Networking Event
SESSION LOCATION:	Majestic Ballroom
SESSION START TIME:	Sun 10/26/2025 6:30 PM
SESSION END TIME:	Sun 10/26/2025 10:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: ACS ProjectSEED
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 7:00 PM
SESSION END TIME: Sun 10/26/2025 9:00 PM
SESSION HOST: Organizer: Ajay Mallia
Organizer: Doug Masterson

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	429	AI-mediated computational analysis of RNA-based aptamers targeting the CD133+ glioblastoma cells	Talamas, Suvir Leekha	0	7:00 PM 9:00 PM
2	430	Quantum mechanical stability and druggability assessment of potential candidate inhibitors targeting Acetylcholinesterase for Alzheimer's Disease	Choudhary, Abdullah | Ganzorig, Ronald	0	7:00 PM 9:00 PM
3	431	Enabling robust single-molecule fluorescence heterogeneity measurement of BODIPY chromophores with high-throughput single-molecule spectroscopy	Wang, Jessie	0	7:00 PM 9:00 PM
4	432	Structure-based simulation of CD8αβ receptor blockade to protect melanocytes from autoimmune cytotoxicity in vitiligo	Kattela, Namyaa	0	7:00 PM 9:00 PM
5	433	Diazotization of C0 and C8 alkyl chain amines: A sustainable synthetic approach using alginic acid	Agyemang, Kevin	0	7:00 PM 9:00 PM
6	434	Modifying solid-phase peptide and Azapeptoid synthesis procedures using green solvents and coupling reagents	Favatella, Talia	0	7:00 PM 9:00 PM
7	435	Effects of *Bortezomib* on mitochondrial proteins	Argueta, Lizania	0	7:00 PM 9:00 PM
8	436	Extraction and biological evaluation of Hypericum walteri	pesina castillo, lindsay	0	7:00 PM 9:00 PM
9	437	Structure-based virtual screening of dihydrolipoyl transacetylase (DLAT) inhibitors as therapeutic leads in pediatric medulloblastomas	Prabhu, Srinish	0	7:00 PM 9:00 PM
10	438	Investigating spectral heterogeneity in fluorescent dyes using single molecule super resolution microscopy	Boone, Makia	0	7:00 PM 9:00 PM
11	440	Targeting CD5 in B-cell malignancies: A computational evaluation of scFv constructs for CAR T cell therapy	Khungar, Aanya	0	7:00 PM 9:00 PM
12	441	Investigating time-dependent microwave-assisted extraction of cyclotides as potential biopesticides	Chen, Yinan	0	7:00 PM 9:00 PM
13	442	Impact of sodium dodecyl sulfate (SDS) on nitrate concentrations in water	Park, Claire	0	7:00 PM 9:00 PM
14	443	Investigating ionic surfactant-nitrate interactions on the surface tension and critical micelle concentration	Dini, Sabrina	0	7:00 PM 9:00 PM
15	444	Temperature dependent microwave-assisted extraction of cyclotides from Australian violet as potential biopesticides	Diep, Michael	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancements in Catalysis for Sustainable Processes
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 7:00 PM
SESSION END TIME: Sun 10/26/2025 9:00 PM
SESSION HOST: Organizer: Christopher Koch
Organizer: Houston Smith

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	445	Fabricating high entropy metal nanoparticles on carbon fibers	Le, Quynh	0	7:00 PM 9:00 PM
2	446	Utilizing defect engineering to influence the stability of single platinum atoms and clusters on ultrathin cerium oxide films	Cimino, Sebastian	0	7:00 PM 9:00 PM
3	447	Electrocatalytic CO2 reduction with Atom-precise CU14 clusters: Role of core geometry, hydrides, and noble metal doping	SARKAR, ANIK	0	7:00 PM 9:00 PM
4	448	Ligand-directed tuning of terpyridine-based earth-abundant molecular catalysts for CO2 reduction	ALAM, MD MAHBUB	0	7:00 PM 9:00 PM
5	449	Resolution of lipase transesterification of 1-phenyl-1-propanol using CAL-B	Pruett, Jonathan	0	7:00 PM 9:00 PM
6	450	Photothermal modulation of coordination geometry and catalytic performance in Ru(II) complexes for green olefin hydroarylation	Musso, Kennedy	0	7:00 PM 9:00 PM
7	451	Oxidized Overlayers of ruthenium and iridium as electrocatalysts for anodic reactions: Modifying materials for a new energy future	Ford, Heber	0	7:00 PM 9:00 PM
8	452	Facet-engineered Cu nanocatalysts for enhanced nitrate electroreduction to ammonia	Kildare, Shaurice	0	7:00 PM 9:00 PM
9	453	Spin-selective photoelectrochemical oxygen evolution utilizing magnetic metal oxide nanoparticles	Morgan, Kyle	0	7:00 PM 9:00 PM
10	454	$LaNiO_{3-\delta}$ based perovskite catalysts on mesoporous silica for efficient CO_2 methanation	Ghosh, Debasmita	0	7:00 PM 9:00 PM
11	455	Designing non-innocent ligands featuring second-coordination sphere interactions to enhance transition metal catalysts for CO_2 reduction	Akter, Nahid	0	7:00 PM 9:00 PM
12	456	Reduction of atmospheric CO_2 to oxalate by a dinuclear copper catalyst	Anto, Sherin	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research: Undergraduate Student Research Symposium
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 7:00 PM
SESSION END TIME: Sun 10/26/2025 9:00 PM
SESSION HOST: Organizer: Nicole Lapeyrouse
Organizer: Julie Donnelly

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	457	ACS student chapter volunteers led Grade 6–8 scientists through themed chemistry activities	Abukar, Maa'idah | Rogers, Bev | Vega, Eduardo | Pollydore, Charmaine | Magliochetti, Nicholas | Toliver, Max | Sublett Breeden, Veronica | Rudd, Gillian	0	7:00 PM 9:00 PM
2	459	Building bonds: How interlocking toy blocks and organic chemistry are more alike than you think	Steenborg, Jacob | Forsythe, Autumn	0	7:00 PM 9:00 PM
3	460	Carbohydrase enzymatic experiments for the organic chemistry laboratory	Knight, Alexandra	0	7:00 PM 9:00 PM
4	461	Mapping the conversation: Using discourse analysis to portray ULA's instructional decision-making	Dolcine, Emanuella	0	7:00 PM 9:00 PM
5	462	Evaluation of science identity in student workers	Nguyen, Maivi	0	7:00 PM 9:00 PM
6	463	Extraction and characterization of curcuminoids compounds in turmeric: A "green" organic chemistry lab experiment	Rowe, Ky'Seanna	0	7:00 PM 9:00 PM
7	464	Connecting the Amazing World of smell to STEM education	Hardy, Mason | Shivel, Aliyah	0	7:00 PM 9:00 PM
8	465	Survey of polariton candidacy of several organic molecules	Buskill, Morgan | Naegele, Amelia	0	7:00 PM 9:00 PM
9	466	Recent activities and advancements in Claflin University's ACS student chapter	Shepherd, Zanyah | Mojekwu, Chidinma	0	7:00 PM 9:00 PM
10	467	Preparation and use of metal clay in the undergraduate laboratory	Hitzel, Allysa	0	7:00 PM 9:00 PM
11	468	Using pre- and post-activity assessments to measure student achievement in organic chemistry I through collaborative learning jigsaw activities	Reyes, Nicole	0	7:00 PM 9:00 PM
12	469	Using a single swimming pool chemistry scenario to connect general chemistry II topics to everyday life	Lampe, Sebastian	0	7:00 PM 9:00 PM
13	470	Exploring the link between semantic language and anxiety in organic chemistry students	Parrilla, Jamy	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Ultrafast and Nonlinear Spectroscopy
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 7:00 PM
SESSION END TIME: Sun 10/26/2025 9:00 PM
SESSION HOST: Organizer: Paul Ohno
Organizer: Bryan Kudisch
Organizer: Sean Roberts

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	471	Design and construction of a time-correlated single-photon counting microscope for characterization of materials	Chooi, Wai Loon	0	7:00 PM 9:00 PM
2	472	Ultrafast dynamics of carbon–carbon bond formation in photoinduced reactions on amorphous silicon oxide surfaces	Gupta, Aakash	0	7:00 PM 9:00 PM
3	473	Effects of aza-substitution on the ultrafast excited-state dynamics in 8-azaadenine investigated by Time-resolved photoelectron spectroscopy	Hasan, Md Mehade	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Sun 10/26/2025 7:00 PM
SESSION END TIME: Sun 10/26/2025 9:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	474	Linking cationic hexapeptides through a β-turn to improve antibacterial activity	Phan, Nhi	0	7:00 PM 9:00 PM
2	475	The mechanism of oxidation of lipids by anesthesia: A proposed explanation for memory loss	Pierman, Ellena	0	7:00 PM 9:00 PM
3	476	Exploring cosmetic formulations using novel hydrogels	Dixon, Alexandra	0	7:00 PM 9:00 PM
4	477	Sustainable development of bio-based raw materials for cosmetic enhancement	Wisdom, Nya	0	7:00 PM 9:00 PM
5	478	Insights into the role of sulfur precursors in PbS quantum dot synthesis through reaction byproduct analysis	Camp, Ashton	0	7:00 PM 9:00 PM
6	479	MALDI-TOF mass spectrometry of model prebiotic reactions in high saline environments	Herndon, Elin	0	7:00 PM 9:00 PM
7	480	Changes in triethylene glycol linker length influence hybridization kinetics of localized DNA four-way junctions	Roth, Madysn	0	7:00 PM 9:00 PM
8	481	Exploring the kinetics and reaction dynamics of peroxy radical unimolecular decay	Cannon, Mollie	0	7:00 PM 9:00 PM
9	482	AI-driven selection of neuropeptides for membrane affinity study	Vandergrift, William	0	7:00 PM 9:00 PM
10	483	Pulsed laser ablation of ferromagnetic targets in organic solvents under inert gas	Arnold, Samuel	0	7:00 PM 9:00 PM
11	484	Solution-phase synthesis and MS/MS characterization of peptides with noncanonical residues	Peterson, Amanda	0	7:00 PM 9:00 PM
12	485	ELARA: A sounding rocket based radio telescope array for measuring the neutral hydrogen spectral line	Arnold, Samuel	0	7:00 PM 9:00 PM
13	486	Electrochemically induced depolymerization of poly(methyl methacrylate)	Izadi, Nikta	0	7:00 PM 9:00 PM
14	487	Derivatization and mass spectrometry detection of peptides with canonical and noncanonical residues	Zow, Ashton | Randall, Jamirika	0	7:00 PM 9:00 PM
15	488	Exploring stilbene cancer therapeutics: Optimizing resveratrol analogue synthesis for triple-negative breast cancer treatment	Okapal, Corbin | Topness, Marissa	0	7:00 PM 9:00 PM
16	489	Evaluation of the antibacterial properties of Ag@MOF-808 toward *E. coli* and *S. aureus*	Buzzi, Catherine	0	7:00 PM 9:00 PM
17	490	Cellulose nanocrystals as an additive in poly(ethylene terephthalate) aerogel composites to increase mechanical strength	Wood, Katherine	0	7:00 PM 9:00 PM
18	491	Promotion of ROS by diclofenac and Its effect on NAD+ metabolism	Fitch, Jackson	0	7:00 PM 9:00 PM
19	492	High-fidelity modeling of covalent reversible JAK3 inhibitors via CGenFF and ffTK parameterization	Davis, Rylee	0	7:00 PM 9:00 PM
20	493	Simultaneous degradation-depolymerization of bioderived comb copolymers	Magliaro Aburaya, Lucas	0	7:00 PM 9:00 PM
21	494	Crystal growth of metal borates using the mild hydrothermal methods,supercritical hydrothermal conditions and hydroflux methods	Stachowiak, Sierra	0	7:00 PM 9:00 PM
22	495	Release of copper nanoparticles from pressure treated lumber	Kempf, Jaden	0	7:00 PM 9:00 PM

23	496	Phenpropyl and phenethylamine synthesis and evaluation of SERT inhibition	Galgano, Evelyn	0	7:00 PM 9:00 PM
24	497	Forensic detection of accelerants in fire debris using ATR spectroscopy	Floyd, Sydnee | Harrell, Trinity	0	7:00 PM 9:00 PM
25	498	Alternative Synthesis of Octyl 4-Methoxycinnamate	Grant, Mason	0	7:00 PM 9:00 PM
26	499	Removal of emerging 6PPD-Q from water: A combined batch and column study	Moore, Kathryn	0	7:00 PM 9:00 PM
27	500	Synthesis of isotactic poly(propylene succinate) with functional end-group fidelity	Valan, Joel	0	7:00 PM 9:00 PM
28	501	Metal-free Alpha-oxygenation of ketones using TEMPO	Chupela, Madison	0	7:00 PM 9:00 PM
29	502	Study on the oxidation of alcohols using TEMPO	Byrne, Shannon	0	7:00 PM 9:00 PM
30	503	Investigating the generality of the metal-free 1,2-dioxygenation of 1,3-dienes using TEMPO disproportionation	Gagarin, Alexander	0	7:00 PM 9:00 PM
31	504	Two photo-driven methods toward oxidation of alcohols	Hemric, Brett	0	7:00 PM 9:00 PM
32	505	Photoacid Generators for the synthesis of dynamic polymers enabled by silyl ether exchanges	Rothenberg, Milo	0	7:00 PM 9:00 PM
33	506	qNMR and metabolic profiling of turmeric tissues reveal curcumin content	Hubbard, Kristan	0	7:00 PM 9:00 PM
34	507	XMCD analysis of Gd & procedure documentation	rodriguez, Jeandier | Reyes Morales, joshua	0	7:00 PM 9:00 PM
35	508	Determination of museum bird collections (Owl, Hawk, and Falcon) feather morphology and composition by optical microscopy, FTIR spectroscopy, and ICP-OES	Owens, Kayley	0	7:00 PM 9:00 PM
36	509	Alternative synthetic methodologies for Prussian blue analogs	Parek, Neil | Arnold, Ryan	0	7:00 PM 9:00 PM
37	510	Advancing zinc-ion battery technology through the synthesis of HEAs using nanodroplet-mediated electrodeposition	Mayol-Lopez, Fabiana	0	7:00 PM 9:00 PM
38	511	Exploring poly(ethylene terephthalate)-nanoclay aerogel composites	Gonzalez-Arellano, Aiyana	0	7:00 PM 9:00 PM
39	512	Synthesis, structure, and properties of rare earth sulfates	Floyd, Sydnee	0	7:00 PM 9:00 PM
40	513	Exploring secondary metabolites from endophytic fungi for the treatment of Candidiasis	Zwatschka, Rachel	0	7:00 PM 9:00 PM
41	514	Examining the synergistic effects of etoposide and ICRF-193 against topoisomerase IIα	Simpson, Lily	0	7:00 PM 9:00 PM
42	515	Preparation and analysis of ancient DNA samples using Oxford Nanopore sequencing	Chumley, Elliana	0	7:00 PM 9:00 PM
43	516	Computational study of polyaromatic hydrocarbon formation via sequential Bergman cyclization	Kim, Danielle	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemical Biology Innovations for Therapeutics
SESSION TYPE: Oral
SESSION LOCATION: Cypress B
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 11:50 AM
SESSION HOST: Organizer: Yousong Ding
Organizer: Y. George Zheng
Presider: Yousong Ding
Presider: Y. George Zheng

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	8:00 AM 8:05 AM
2	517	Ketone bodies-mediated cysteine modifications discovered by chemical proteomics	Wang, Zhipeng	25	8:05 AM 8:30 AM
3	518	A distinct molecular signature of neuroendocrine prostate cancer based on transcriptomics and protein–protein interactions	Wan, Jun	25	8:30 AM 8:55 AM
4	519	Edman sequencing evolved: Precise native peptide *c*-terminal ligation	Omere, Aisosa	15	8:55 AM 9:10 AM
5	520	Pharmacophore-based design of small molecule inhibitors of protein arginine methyltransferases for cancer therapy	Zheng, Y. George	25	9:10 AM 9:35 AM
6		Break		20	9:35 AM 9:55 AM
7	521	Autophagy receptor-inspired antibody-fusion proteins for targeted intracellular degradation	Jiang, Ziwen	25	9:55 AM 10:20 AM
8	522	Biotin-mediated drug delivery: Does the biotin transporter mediate uptake of biotin conjugates?	Wang, Binghe	25	10:20 AM 10:45 AM
9	523	Combination effect of antihypertensive drugs with antioxidants for the management of cardiovascular diseases	Pradhan, Kishanta	20	10:45 AM 11:05 AM
10	524	Structure-activity relationship of PROTACs targeting CDK8/CDK19 Mediator kinases and insights into degradation complex formation using AlphaFold 3	Zheng, Jia | McInnes, Campbell	15	11:05 AM 11:20 AM
11	525	Investigation of HIV-1 reverse transcriptase as a neosubstrate for targeted protein degradation	Snowden, Timothy	25	11:20 AM 11:45 AM
12		Closing Remarks		5	11:45 AM 11:50 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Frontiers in Nucleic Acids
SESSION TYPE: Oral
SESSION LOCATION: Magnolia B
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Yulia Gerasimova
Organizer: Dmitry Kolpashchikov
Organizer: Markus Germann
Organizer: Jessica Siemer
Presider: Yulia Gerasimova
Presider: Dmitry Kolpashchikov
Presider: Markus Germann
Presider: Jessica Siemer

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks/Setup		20	8:00 AM 8:20 AM
2	526	Predictability unraveled: The complexity beneath canonical quadruplex patterns in orthoflaviviruses	Siemer, Jessica	30	8:20 AM 8:50 AM
3	527	Deciphering genomic patterns near tRNA genes	West, Caroline	30	8:50 AM 9:20 AM
4	528	Formation of left-handed G4s and their interactions with a traditional G4 ligand, N-methylmesoporphyrin IX	Yatsunyk, Liliya	30	9:20 AM 9:50 AM
5		Coffee Break		25	9:50 AM 10:15 AM
6	529	Nucleic acid nanoparticles for biomedical applications	Afonin, Kirill	30	10:15 AM 10:45 AM
7	530	Insights in to the G-Triplex DNA binding by nucleic acid ligands	Kerwin, Sean	30	10:45 AM 11:15 AM
8	531	Revisiting sequence-specificity of nucleic acid binding dyes	Gerasimova, Yulia	30	11:15 AM 11:45 AM
9		Closing Remarks		15	11:45 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Analytical Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Flamingo Room
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Pavithra Pathirathna

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	532	Implementation of Benchtop qNMR in Undergraduate Laboratories	Araneda, Juan	20	8:00 AM 8:20 AM
2	533	Functional deep eutectic solvents to boost antioxidant synergism in edible fats	Dike, Emmanuel	20	8:20 AM 8:40 AM
3	534	Novel coumarin hydrazide probes for selective ion pair recognition and sensing applications	Khalili, Farzane	20	8:40 AM 9:00 AM
4	535	Chemical characterization of Verbenaceae essential oils using modern analytical methods and chemometrics	HILLIARD, ALEKSANDRA	20	9:00 AM 9:20 AM
5	536	Lack of significant association between nail trace elements and urinary KIM-1 biomarker among residents of Addis Ababa, upper Awash Basin, Ethiopia: A cross-sectional study	Abegaz, Samuel	20	9:20 AM 9:40 AM
6	537	Determination of some heavy metals in human nails by slurry sampling graphite furnace atomic absorption spectrometry (SS-GF-AAS)	Mierzwa, Jerzy	20	9:40 AM 10:00 AM
7		Break		20	10:00 AM 10:20 AM
8	538	Impact of different commercially available SCOBY compositions on the fermentation of kombucha	Budner, Drew	20	10:20 AM 10:40 AM
9	539	Constraining the low-temperature oxidation mechanism of *n*-hexanol through the detection and identification of C_6 elusive intermediates	ZHAI, YITONG	20	10:40 AM 11:00 AM
10	540	Analysis of Cabo Verdean grogue and other alcohol samples using ICP-OES, GC/MS and UV/vis spectrometer	Kelley, Shayla	20	11:00 AM 11:20 AM
11	541	Enhancing toxicological risk assessment of environmental contaminants using liquid chromatography mass spectrometry (LCMS) quality control tools to support the development of non-animal test methods	Zuniga, Justin	20	11:20 AM 11:40 AM
12	542	Analytical methods based on liquid chromatography tandem mass spectrometry for the detection of nitrosamine impurities	Satti, PhankumarReddy	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Physical Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus B
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 11:40 AM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Rachel Bangle

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	543	Density functional theory and machine learning study of bulk properties of bimetallic carbides	Thapa, Amit	20	8:00 AM 8:20 AM
2	544	The effect of SARS-COV-2 protein fragments on the dimerization of α-Synuclein	Coleman, Lucy	20	8:20 AM 8:40 AM
3	545	Polarization and the nature of reaction barriers and halogen bonding tendencies in main group halides	Donald, Kelling	20	8:40 AM 9:00 AM
4	546	Insights on the electronic and quantum tunneling effects in 8-methylquinoline via Fourier transform microwave spectroscopy	Miller, Cadence | Samuel, Jenis	20	9:00 AM 9:20 AM
5	547	Investigations of uranium hexafluoride chemistry on organic surfaces	Alexander, William	20	9:20 AM 9:40 AM
6	548	Atoms-in-molecules investigation of coordinate-covalent bonding in transition metal complexes	Clabo, David	20	9:40 AM 10:00 AM
7		Break		0	10:00 AM 10:00 AM
8	549	APEC-F 2.0: An automated QM/MM model for flavoproteins: Application on spectral tuning of iLOV and redox potential calculations	ELHAJJ, SARAH	20	10:00 AM 10:20 AM
9	550	Simulating resonant inelastic x-ray scattering of Ru model complexes using time-dependent density functional theory	DADA, MUHAMMED	20	10:20 AM 10:40 AM
10	551	Quantum tunneling and mechanistic insights into the Ni(+)-mediated C–H activation of acetic acid	Pinto, Gabriele	20	10:40 AM 11:00 AM
11	552	Modulation of $A\beta_{1\text{-}42}$ aggregation by the SARS-COV-2 derived viral fragment FI10	Premathilaka, Malinda	20	11:00 AM 11:20 AM
12	553	Vibrational signatures of tritiation in the water-dimer cation	Whitman, Drew	20	11:20 AM 11:40 AM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	HBCU/SACNAS Breakfast
SESSION TYPE:	Networking Event
SESSION LOCATION:	Citrus A
SESSION START TIME:	Mon 10/27/2025 8:00 AM
SESSION END TIME:	Mon 10/27/2025 10:00 AM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Medicinal Chemistry of Heterocycles and Natural Products: Driving Drug Discovery
SESSION TYPE: Oral
SESSION LOCATION: Cypress A
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 11:50 AM
SESSION HOST: Organizer: Siva Panda
Presider: Siva Murru

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	8:00 AM 8:05 AM
2	554	Drug discovery efforts at UNF: Synthesis, bioassay, and computational docking studies of novel curcuminoids (CURs)	Laali, Kenneth	30	8:05 AM 8:35 AM
3	555	Characterization and selectivity alteration of the homologation enzyme for L-tyrosine and L-phenylalanine, HphA	Mori, Shogo	30	8:35 AM 9:05 AM
4	556	Targeting ER-resident protein disulfide isomerase PDIA1, in multiple myeloma: Amino acid conjugates for ‘hit’ to ‘lead’	Tiwari, Anand	30	9:05 AM 9:35 AM
5		Coffee Break		15	9:35 AM 9:50 AM
6	557	Chemical investigation of antimicrobial Floridian mangrove endophyte	Osei Bobbie, Sylvester	20	9:50 AM 10:10 AM
7	558	Phytochemical profiling and antioxidant activity of *Acalypha wilkesiana*	johnson, victor	20	10:10 AM 10:30 AM
8	559	Novel colchicine binding site inhibitor overcomes taxol resistance in metastatic melanoma *In vivo* via dual apoptosis and necroptosis pathways	Clark, Christopher	20	10:30 AM 10:50 AM
9	560	Synthesis and antimicrobial profiling of purpurides as a stepping stone for drug discovery	Smith, Jacqueline	20	10:50 AM 11:10 AM
10	561	Structure-based discovery and synthesis of gain-of-function oligoadenylate synthetase 1 (GoF-OAS1) inhibitors	Jeremia, Learnmore	20	11:10 AM 11:30 AM
11	562	Design, synthesis, antibacterial evaluation, and molecular modelling studies of 1,2, 3-triazole-linked coumarin-vanillin hybrids as potential DNA gyrase and topoisomerase IV inhibitors	Khanna, Aanchal	20	11:30 AM 11:50 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: PMSE/POLY Symposium: Recycling, Upcycling and Bio-based Polymers
SESSION TYPE: Oral
SESSION LOCATION: Magnolia A
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Reza Foudazi
Presider: Reza Foudazi

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Intermission: Meet & Greet		5	8:00 AM 8:05 AM
2	563	End-of-life barriers and solutions for single-use technology	Dong, Xiaobo	25	8:05 AM 8:30 AM
3	564	Chemical upcycling of post-consumer plastics towards separation of high-value chemical feedstocks	Bowman, Jared	20	8:30 AM 8:50 AM
4	565	Upcycled composite derived from polyacrylonitrile and elemental sulfur: Thermomechanical properties and microstructural insight	Wijeyatunga, Shalini	20	8:50 AM 9:10 AM
5	566	Chitosan as a sustainable polymer platform for agricultural and environmental applications	Calvo, Patricia	25	9:10 AM 9:35 AM
6	567	Tuning dispersion of nanocellulose fibers for polymer composites through multi-scale MD simulations	Jayaraman Rukmani, Shalini	20	9:35 AM 9:55 AM
7		Intermission: Coffee Break		20	9:55 AM 10:15 AM
8	568	Mechanical metamaterials built from natural polymers: Auxetic behavior in cellulose nanomaterial networks	Shofner, Meisha	25	10:15 AM 10:40 AM
9	569	Sustainable fluorescent epoxy resins from biomass-derived coumaric and ferulic acids with enhanced thermo-mechanical properties	Bhardwaj, Siddhant	20	10:40 AM 11:00 AM
10	570	Poly(δ-pinene) and derivatives: New discoveries and opportunities from a bio-derived and all-hydrocarbon plastic	Moody, Nath-Eddy	20	11:00 AM 11:20 AM
11	571	Brown grease as a precursor to polyol monomer for polyurethane synthesis	Ksor, Ykok	20	11:20 AM 11:40 AM
12	572	Utilizing flexible biobased polymers of triboelectric nanogenerators for greener energy harvesting	Abdelrahman, Kareem	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Prof. Donald Kurtz Celebration of Retirement
SESSION TYPE: Oral
SESSION LOCATION: Cypress C
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Jonathan Caranto
Organizer: Zachary Tonzetich
Presider: Jonathan Caranto
Presider: Zachary Tonzetich

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		10	8:00 AM 8:10 AM
2	573	A role for histidine in NiSOD maturation	Maroney, Michael	30	8:10 AM 8:40 AM
3	574	Spectroscopic studies of nitric oxide reactions with nonheme iron proteins	Moenne Loccoz, Pierre	30	8:40 AM 9:10 AM
4	575	Mechanisms of oxidative nitric oxide chemistries mediated by metalloenzymes	Caranto, Jonathan	30	9:10 AM 9:40 AM
5	576	Heme vs. cobalamin, iron vs. cobalt – and beyond: Rationalization of differing reactivity in redox and coordination	Silaghi-Dumitrescu, Radu	30	9:40 AM 10:10 AM
6		Coffee Break		20	10:10 AM 10:30 AM
7	577	Role of thiolates in creating more reactive iron dioxygen intermediates	Kovacs, Julie	30	10:30 AM 11:00 AM
8	578	The biothermodynamics of metal ion coordination to a γ-carbonic anhydrase from *P. furiosus*	Emerson, Joseph	30	11:00 AM 11:30 AM
9	579	Transferrin and protection from thrombotic complications in sickle cell disease	Nocek, Judith	30	11:30 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: REACh: Rare Earths and Actinide Chemistry Symposium
SESSION TYPE: Oral
SESSION LOCATION: Magnolia C
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 12:05 PM
SESSION HOST: Organizer: Anne Gorden
Organizer: Katherine Johnson
Presider: Anne Gorden
Presider: Katherine Johnson

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory remarks		5	8:00 AM 8:05 AM
2	834	Stabilizing expanded redox behaviors in f-element complexes with strong field ligands	Altman, Alison	20	8:05 AM 8:25 AM
3	581	Bipolar complexants for minor actinide extraction: design, validation, and application	Carrick, Jesse	30	8:25 AM 8:55 AM
4	582	Transplutonium coordination chemistry and separations	Celis, Cristian	20	8:55 AM 9:15 AM
5	583	Complexing carbon: Pursuing rare carbon-actinide bonding motifs	MacGregor, Frank	30	9:15 AM 9:45 AM
6		Coffee		30	9:45 AM 10:15 AM
7	584	Electrochemically-assisted solvent extraction for scalable lanthanide separations	Di Bona, Kristin | Hill, Caleb	30	10:15 AM 10:45 AM
8	585	Harnessing polyoxometalate coordination chemistry to stabilize lanthanides and actinides in the +4 oxidation state	Carter, Korey	20	10:45 AM 11:05 AM
9	586	Structural trends in f-element terpyridyl and diglycolamide systems	White, Frankie	20	11:05 AM 11:25 AM
10	587	Understanding reactions with uranium hexafluoride	McNamara, Louis	20	11:25 AM 11:45 AM
11	588	Rapid microwave synthesis and characterization of europium and terbium-doped nanomaterials	De Silva, Channa	20	11:45 AM 12:05 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Recent Advances in the Chemistry of Multinuclear Transition Metal Complexes
SESSION TYPE: Oral
SESSION LOCATION: Harbor A
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 11:55 AM
SESSION HOST: Organizer: Michael Stollenz
Presider: Michael Stollenz

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	8:00 AM 8:05 AM
2	589	Development of C3 symmetric, scaffolded ligands for the stabilization of EMACs of Fe	Guillet, Gary	30	8:05 AM 8:35 AM
3	590	Metal-metal bonded electrocatalysts for ammonia oxidation	Berry, John	30	8:35 AM 9:05 AM
4	591	Chalcogen-bridged nickel(I) dimers: Formation, redox behavior, and reactivity	Sadighi, Joseph	30	9:05 AM 9:35 AM
5	592	Bimetallic photosensitizers: Synthesis, characterization, electronic structure and photoproperties	Karunananda, Malkanthi	30	9:35 AM 10:05 AM
6		Coffee Break		20	10:05 AM 10:25 AM
7	593	Multinuclear coinage metal complexes of fluorinated *N*-heterocycles	Dias, Rasika	30	10:25 AM 10:55 AM
8	594	Carbon monoxide, dinitrogen, and nitrite activation by polynuclear iron complexes	Murray, Leslie	30	10:55 AM 11:25 AM
9	595	Homoleptic Cu^{I} synthons in flexible bis(amidinate) moieties	Stollenz, Michael	30	11:25 AM 11:55 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Structures and Properties of Photoactive Materials
SESSION TYPE: Oral
SESSION LOCATION: Harbor C
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 11:30 AM
SESSION HOST: Organizer: Dongmao Zhang
Organizer: Tom Hopper
Organizer: Shengli Zou
Presider: Bhoj Gautam
Presider: Elisa Pieri

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	596	Plasmon-generated hot holes in water oxidation	Wei, Wei	25	8:00 AM 8:25 AM
2	597	Interrogating the structure, optical response, and dynamics of semiconducting polymer–electrolyte interphases	Risko, Chad	25	8:25 AM 8:50 AM
3	598	The fascinating photophysics of linearly-fused aromatic compounds: Structure-property relationships	Anthony, John	25	8:50 AM 9:15 AM
4	599	Improving bandgap determination by optical spectroscopy: Comparative evaluation of ISARS, UV-Vis, and diffuse reflectance	Pham, Huy	15	9:15 AM 9:30 AM
5		Coffee break		15	9:30 AM 9:45 AM
6	600	From data to devices: machine learning-guided exploration of high-performance inorganic phosphors	Brgoch, Jakoah	25	9:45 AM 10:10 AM
7	601	Citrate-based synthesis of an inorganic chromophore: Structural and optical property investigation	MOUKHFI, Chaimaa	15	10:10 AM 10:25 AM
8	602	Bridging the gap between computational modeling and experimental optical spectrum measurement	Zou, Shengli	25	10:25 AM 10:50 AM
9	603	Untangling proton-coupled photodynamics in biliverdin through multiscale simulation	Pieri, Elisa	25	10:50 AM 11:15 AM
10	604	Photoactive antimicrobial materials targeting ESKAPE pathogens for combat and clinical wound care	Alvarado, David	15	11:15 AM 11:30 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Ultrafast and Nonlinear Spectroscopy
SESSION TYPE: Oral
SESSION LOCATION: Nautilus C
SESSION START TIME: Mon 10/27/2025 8:00 AM
SESSION END TIME: Mon 10/27/2025 11:40 AM
SESSION HOST: Organizer: Paul Ohno
Organizer: Bryan Kudisch
Organizer: Sean Roberts
Presider: Paul Ohno
Presider: Bryan Kudisch
Presider: Sean Roberts

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	8:00 AM 8:05 AM
2	605	Role of strong confinement and electronic coupling in perovskite quantum dots: From hot electron emission to superradiance	Son, Dong Hee	30	8:05 AM 8:35 AM
3	606	Lattice symmetry guided spin dynamics in supramolecular assemblies	Ma, Xuedan	30	8:35 AM 9:05 AM
4		Break		10	9:05 AM 9:15 AM
5	607	Deciphering spin relaxation pathways in two-dimensional lead halide perovskites via ultrafast spectroscopy	Wang, Lili	20	9:15 AM 9:35 AM
6	608	Advancing ultrafast optical probes in pump-probe microscopy–spectroscopy: Mapping nanoscale photophysics	Ghadiri, Elham	30	9:35 AM 10:05 AM
7	609	Understanding ultrafast terahertz conductivity in materials for a sustainable future	Neu, Jens	30	10:05 AM 10:35 AM
8		Break		15	10:35 AM 10:50 AM
9	610	Photoexcited polaron dynamics reveal morphology-dependent formation of mobile polarons in chemically oxidized conducting polymers	Umar, Abdul Rashid	20	10:50 AM 11:10 AM
10	611	Controlling light-driven molecular motion: Connectivity, coupling, and coherence in ultrafast photoisomerization	Slavov, Chavdar	30	11:10 AM 11:40 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advances in Electrochemistry and Bioelectrochemistry
SESSION TYPE: Oral
SESSION LOCATION: Harbor B
SESSION START TIME: Mon 10/27/2025 8:15 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Olja Simoska
Organizer: Sanela Martic
Presider: Ivan Moreno-Hernandez

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Welcome and Introduction		5	8:15 AM 8:20 AM
2	612	Advances in scanning probe electrochemistry microscopy	Pan, Shanlin	30	8:20 AM 8:50 AM
3	613	Polymer functionalized single nanopipettes as conductance imaging nanoprobes and memristors	Wang, Gangli	30	8:50 AM 9:20 AM
4		Intermission		20	9:20 AM 9:40 AM
5	614	Leveraging in situ characterization across spatiotemporal domains to activate oxygen electrocatalysis	Moreno-Hernandez, Ivan	30	9:40 AM 10:10 AM
6	615	Electrooxidation of alkenes in water using a graphite anode decorated with ruthenium oxide nanoparticles	Hosseini, Seyyedamirhossein	30	10:10 AM 10:40 AM
7		Intermission		20	10:40 AM 11:00 AM
8	616	A molecular graphite for charge storage	Jackson, Megan	30	11:00 AM 11:30 AM
9	617	Electrodeposition of films, assemblies, and junctions containing metal nanoclusters and nanoparticles	Zamborini, Frank	30	11:30 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Contaminants of Emerging Concern: Analytical Methods, Environmental Processes, and Remediation Strategies
SESSION TYPE: Oral
SESSION LOCATION: Citrus B
SESSION START TIME: Mon 10/27/2025 8:15 AM
SESSION END TIME: Mon 10/27/2025 11:40 AM
SESSION HOST: Organizer: Jianzhou He
Organizer: Dengjun Wang
Presider: Jianzhou He
Presider: Dengjun Wang

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	8:15 AM 8:20 AM
2	618	Machine learning reveals spatio-temporal drivers of PFAS in soils	Deliz, Katherine	20	8:20 AM 8:40 AM
3	619	Integrated machine learning models for assessing plant uptake and translocation of emerging contaminants	Bagheri, Majid	20	8:40 AM 9:00 AM
4	620	Surface behavior of CeO_2 and ZnO nanoparticles in the presence of PFOA and root exudates: Implications for PFAS remediation	Sharifan, Hamidreza	20	9:00 AM 9:20 AM
5	621	Abiotic and biotic transformation of FOSA in oxic-anoxic transition zones under wetting-drying cycles	Wang, Chongyang	15	9:20 AM 9:35 AM
6	622	Interaction of PFAS compounds with DREAM: Implications for neurotoxicity	Imu, Ayesha Mehrin	15	9:35 AM 9:50 AM
7	623	Effects of biochar on PFAS destruction by advanced reduction process	Fouraker, Cailin	15	9:50 AM 10:05 AM
8		Session Break		10	10:05 AM 10:15 AM
9	624	Advanced characterization of pharmaceutical degradants in the environment using ion mobility-tandem mass spectrometry (IM-MS/MS)	Sabatini, Heidi	15	10:15 AM 10:30 AM
10	625	Synergistic adsorption of lead from water using calcined biochar-bentonite clay hybrid	Abdul-raheem, Azeezat	15	10:30 AM 10:45 AM
11	626	Hausmannite-modified Douglas fir biochar for the adsorption and redox-transformation of As (III) to As (V)	Olabode, Olalekan	15	10:45 AM 11:00 AM
12	627	Developing sustainable CO2 adsorbents via zeolite-modified biomass Hydrochars	Saha, Swarna	15	11:00 AM 11:15 AM
13	629	Nature and transformations of nanomaterials as a result of wildland-urban interface fires	Baalousha, Mohammed	20	11:15 AM 11:35 AM
14		Closing Remarks		5	11:35 AM 11:40 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Ion Mobility-Mass Spectrometry: New Frontiers in Structural Analysis and Separations
SESSION TYPE: Oral
SESSION LOCATION: Nautilus A
SESSION START TIME: Mon 10/27/2025 8:30 AM
SESSION END TIME: Mon 10/27/2025 11:40 AM
SESSION HOST: Presider: Christian Bleiholder
Presider: Francisco Alberto Fernandez-Lima
Organizer: Theresa Nguyen

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	630	Linker H1 histone direct top-down proteoform analysis	Fernandez-Lima, Francisco Alberto	20	8:30 AM 8:50 AM
2	631	Characterization of protein conformational space using complementary vT-nESI, HDX and TIMS-MS/MS	Carter, Marissa	15	8:50 AM 9:05 AM
3	632	Rapid characterization of new psychoactive substances using gas-phase ionization techniques coupled to ion mobility-mass spectrometry dielectric barrier discharge ionization	garrison, bradley	15	9:05 AM 9:20 AM
4	633	Using 4D-Lipidomics on a timsTOF Pro 2 to understand the reproductive cycle non-native Burmese Pythons infesting the Florida Everglades	Basso, Kari	20	9:20 AM 9:40 AM
5	634	Rapid, accurate biomarker analysis for the diagnosis of Alzheimer’s disease using high-resolution ion mobility mass spectrometry	Kartowikromo, Kimberly	15	9:40 AM 9:55 AM
6		Break		30	9:55 AM 10:25 AM
7	635	Duplicated insulin genes: Proteoforms, isoforms, and the fine line between nature’s errors and ingenious design	Do, Thanh	20	10:25 AM 10:45 AM
8	636	Rapid multi-omics for diagnostic microbiology using ion mobility-mass spectrometry	Hines, Kelly	20	10:45 AM 11:05 AM
9	637	Extracellular vesicle lipidomics using acoustic sampling coupled with differential mobility spectrometry	Nguyen, Theresa	20	11:05 AM 11:25 AM
10	638	Top-down proteoform analysis of core histone H2A in non-annotated *Ae. aegypti* strains	Ramirez Torres, Andrea	15	11:25 AM 11:40 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research in the South-East Region
SESSION TYPE: Oral
SESSION LOCATION: Pelican Room
SESSION START TIME: Mon 10/27/2025 9:00 AM
SESSION END TIME: Mon 10/27/2025 11:45 AM
SESSION HOST: Organizer: Erin Saitta
Organizer: Christopher Randles
Presider: Erin Saitta

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductions		5	9:00 AM 9:05 AM
2	639	Exploring students' epistemic modeling across general chemistry and organic chemistry	Balabanoff, Morgan	20	9:05 AM 9:25 AM
3	640	Analyzing access to undergraduate research experiences: Findings from a multi-institutional study	Boyd, Evelyn	20	9:25 AM 9:45 AM
4	641	High cost in organic chemistry and its impact on academic and personal outcomes	Bui, Joyce	20	9:45 AM 10:05 AM
5	642	Variations in utility value perceptions among general chemistry students	Lewis, Scott	20	10:05 AM 10:25 AM
6		Break		15	10:25 AM 10:40 AM
7	643	Defining science, shaping success: Exploring the link between science definitions, STEM attitudes, and chemistry performance	Odeleye, Oluwatobi	20	10:40 AM 11:00 AM
8	644	Using social network analysis to explore the development of the Interactive Online Network of Inorganic Chemistry (IONiC) community of practice: Co-authorship as a means for community evaluation	Raker, Jeffrey	20	11:00 AM 11:20 AM
9	645	Does specifications grading improve students' affective experiences in organic chemistry? A difference-in-differences analysis	Yik, Brandon	20	11:20 AM 11:40 AM
10		Closing Remarks		5	11:40 AM 11:45 AM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Workshop: ACS Summit - Industry-Academia Summit on Preparing Chemists for the Private Sector
SESSION TYPE:	Workshop
SESSION LOCATION:	Royal 1
SESSION START TIME:	Mon 10/27/2025 9:00 AM
SESSION END TIME:	Mon 10/27/2025 4:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Colloids, Surfactants, Interfaces and Nanomaterials
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 10:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Ajay Mallia

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	646	Chitosan-alginate nanoparticle conjugates: An effective oral protein delivery system with enhanced gastric stability	Matthis, Keianna | Jain, Sapna	0	10:00 AM 12:00 PM
2	647	Rapid isolation and label-free protein biomarker characterization of exosomes from human blood plasma	Ambrosius, Hannah	0	10:00 AM 12:00 PM
3	648	Determination of conformation change and orientation of specific residues in the Oligomer of α-Syn(61 - 95) in monolayer by p-Polarized multiple angle incidence resolution spectrometry (pMAIRS)	Akinleye, Toyin | Fabusiwa, Oluwasina	0	10:00 AM 12:00 PM
4	649	Insights into nanoparticle surface bonding and coating architecture via multinuclear NMR	Aubrey, Jacob	0	10:00 AM 12:00 PM
5	650	Designing targeted brain cancer therapies using engineered plant extracellular vesicles	Moloudian, Hamid	0	10:00 AM 12:00 PM
6	651	Identifying compositional effects of multimetallic nanoparticles for catalysis	Mathew, Jessen	0	10:00 AM 12:00 PM
7	652	Emulgel as a promising substitute for cocoa butter in the chocolate application	Matamoros, Jiana	0	10:00 AM 12:00 PM
8	653	Innovative pectin-structured emulgel: a clean-label solution for saturated fat reduction in processed meats	Talukder, Sudipta	0	10:00 AM 12:00 PM
9	654	Investigating amine capture in Cu-BDC metal organic frameworks with electron paramagnetic resonance	Augustine, Ruth	0	10:00 AM 12:00 PM
10	655	Green synthesis of silver suilfide nanoparticles	Britton, Richard	0	10:00 AM 12:00 PM
11	656	Constructing resilient elastomeric materials using materials binding peptides	Thomas, Sradha Mariya	0	10:00 AM 12:00 PM
12	657	Synthesis and characterization of chitosan nanoparticles for successful entrapment and delivery of cationic antimicrobial peptides	Boyd, Nataya | Matthis, Keianna | Cleave, Jattah | Mitchell, Laia | Mcgill, Azorea | Jain, Sapna	0	10:00 AM 12:00 PM
13	658	Thermal stability and alloying behavior of bimetallic Au@M (M = Ag, Pd, Pt) nanobipyramids on TiO_2 support: Implications for plasmonics	Egan, Thomas	0	10:00 AM 12:00 PM
14	659	Synthesis of efficient alginate-chitosan Nanoconjugates for enhanced peptide delivery and bacterial combat	Boyd, Nataya | Jain, Sapna	0	10:00 AM 12:00 PM
15	660	Next-Gen wound care: Green synthesis of BSA-stabilized silver-chitosan nanoconjugates for superior antimicrobial performance	Cleave, Jattah | Jain, Sapna	0	10:00 AM 12:00 PM
16	661	Assessment of biological and physicochemical properties of stabilized curcumin-borate complexes through nanoparticle loading	Mohammad, Umar	0	10:00 AM 12:00 PM
17	662	Electrospray combined with phase inversion for controlled drug release	Ullom, Madison	0	10:00 AM 12:00 PM
18	663	Comparison of antiviral activities of carbon dots with nano-carbon/organic hybrids and implications	Yerra, Subhadra	0	10:00 AM 12:00 PM
19	664	Automation of β-Ga_2O_3:Cr nanowires optical cavities simulations using *Python* and *OptiFDTD*	Pagan-Gavillan, Michael	0	10:00 AM 12:00 PM

20	665	Synthesis of Zn_2GeO_4 nanomembranes by vapor-solid method	Torres-Padilla, Dorcas	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Emerging Trends in Bio-based Polymers: A Pioneering Perspective and Advancements
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 10:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Mayankkumar Chaudhary
Organizer: Chandan Bodhak
Organizer: Ram Gupta

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	666	Enhancing the thermal, mechanical, and chemical properties of bio-based polyurethane adhesives: The influence of pentaerythritol crosslinking in Castor and soybean oil polyols	Dodiya, Pradip	0	10:00 AM 12:00 PM
2	667	Ultrasound-assisted functionalization of lignocellulosic biomass ingredients for bioplastic development	Mirmohammadsadeghi, Seyedali	0	10:00 AM 12:00 PM
3	668	Development of bio-based polyurethane coatings via multifunctional crosslinkers and hydrophobic silane additives	Chaudhari, Kinal	0	10:00 AM 12:00 PM
4	669	Incorporation of Schiff base diols for enhanced performance of soy-based polyurethane adhesives	Patel, Yashkumar	0	10:00 AM 12:00 PM
5	670	Structurally engineered bio-based polyurethanes: exploring the interface of flexibility, strength, and sustainability	Joshi, Jaymin	0	10:00 AM 12:00 PM
6	671	Castor oil-based UV curable acrylate/methacrylate resins for Digital Light Processing (DLP) 3D printing technology	Chaudhary, Shaili	0	10:00 AM 12:00 PM
7	672	Curing characteristics of eugenol-based epoxy thermosets modified with diamine cross-linkers	Patel, Himanshu	0	10:00 AM 12:00 PM
8	673	Sustainable production of bio-based polyurethane adhesives using cellulose derived from paper towels	Patel, Yashkumar	0	10:00 AM 12:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Exposition
SESSION TYPE:	Networking Event
SESSION LOCATION:	Majestic Ballroom
SESSION START TIME:	Mon 10/27/2025 10:00 AM
SESSION END TIME:	Mon 10/27/2025 5:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Innovations in Inorganic Materials from Nanocrystals to Bulk Crystal Growth
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 10:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Vladislav Klepov
Organizer: Tina Salguero

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	674	Control of molecular structure in the reaction of Cu(pdc) with azines	Friedli, Andrienne	0	10:00 AM 12:00 PM
2	675	Synthesis and investigation of a novel orthophosphate compound Ba(Sb0.5Al0.5)(PO4): corrosion inhibition resistance and optical properties	Kadimi skalli, Safae	0	10:00 AM 12:00 PM
3	676	Ferromagnetism and superstructure formation in Kagome metal $CaFe_6Ge_6$	Li, Victoria	0	10:00 AM 12:00 PM
4	677	Formation of highly nitrogen doped porous carbon by templating in zeolite nanochannels for ORR and CO_2 adsorption	Ivanov, Ivan	0	10:00 AM 12:00 PM
5	678	Synthesis of high entropy metal sulfide nanocrystals from Prussian blue analogues for HER catalysis	Bell, Samantha	0	10:00 AM 12:00 PM
6	679	Examination of chemical environments in manganese-based phosphors using x-ray photoelectron spectroscopy	Garcia, Josemaria	0	10:00 AM 12:00 PM
7	680	Microwave synthesis of high entropy alloy nanoparticles for catalysis	Gordon, Matt	0	10:00 AM 12:00 PM
8	681	Thermally-induced twisting of 1D Nb_2Se_9 nanoribbons	Mantz, Clay	0	10:00 AM 12:00 PM
9	682	Correlation of alcohol adsorption with changes in electrical impedance of microporous $Cu_2(BDC)_2DABCO$ crystals	Matherne, Hallie	0	10:00 AM 12:00 PM
10	683	From magic size to atomic precision: Facile synthesis of a CdTe semiconductor nanocluster	Mech, Saryvoudh	0	10:00 AM 12:00 PM
11	684	Synthesis of Cr-Intercalated 5d Transition Metal Ditellurides Cr_xMTe_2 (M = Ta)	Saakov, David	0	10:00 AM 12:00 PM
12	685	Near-infrared emitting blue pigments: From synthesis to applications	Yegane, Athar	0	10:00 AM 12:00 PM
13	686	Magnetic topological materials with 1D hypervalent Bi^{2-} chains	Wu, Kaige	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 10:00 AM
SESSION END TIME: Mon 10/27/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	687	Theoretical model of protein-porphyrin binding for low-cost detection of PFAS in water	Dinh, Ngan	0	10:00 AM 12:00 PM
2	688	Density-functional investigations into the interaction energetics between a tetrol cavitand and metal ions in the lanthanide series	Stanfield, Zandria | Beran, Kyle	0	10:00 AM 12:00 PM
3	689	Using an octaamine resorcinarene derivative as an extraction framework to isolate metal ions in the lanthanide series from a variety of phases: A DFT investigation	Zipp, Samuel	0	10:00 AM 12:00 PM
4	690	Determining the amounts of caffeine in foreign black teas: Investigating the amounts of caffeine (mg) in foreign black teas from India, Kolkata (Brooke Bond Taj Mahal Black Loose Tea Granules); England, Yorkshire (Taylors of Harrogate Black Tea); China, Tanyang Village, Fu'an, Fujian Province (Golden Sail Brand China Lichee Black Tea); Turkey, Rize Province (Caykur, 42 No'lu Tirebolu Cayi); and Yeman, Taiz City (Al-KBous Tea Fine Black Tea), using liquid-liquid extraction (solvent extraction) method	Kandula, Anwitha	0	10:00 AM 12:00 PM
5	691	Quantification of secondary metabolites in cacao nibs sourced from different geographical regions and microclimates	Dow, Alex	0	10:00 AM 12:00 PM
6	692	Removing zinc from aqueous solutions utilizing cotton bush waste	Rush, Ronisha	0	10:00 AM 12:00 PM
7	693	Determination of total phenolic content, antioxidant properties, and anthocyanin concentrations within heirloom and hybrid red lettuce cultivars	Becher, Ian | Rivers, Saki'a	0	10:00 AM 12:00 PM
8	694	Optimization of a Wittig experiment for the organic II laboratory	Connolly, Calleigh	0	10:00 AM 12:00 PM
9	695	Behavior of liquid metal polymer composites: Investigating droplet size and dielectric behavior during deformation	Mesfun, Milena	0	10:00 AM 12:00 PM
10	696	Geochemical reconstruction of a late-Cretaceous ecosystem using paleoclimate proxy analysis	Armstorff, Genevieve	0	10:00 AM 12:00 PM
11	697	Synthesis of luminescent rare earth compounds using terpyridine ligands	Viator, William	0	10:00 AM 12:00 PM
12	698	Exploring international information literacy strategies: A scoping review on Singapore	Le, Han	0	10:00 AM 12:00 PM
13	699	Preliminary results of the trends in the microfiber and metal content of Lake Allatoona sand	Farris, Daniel	0	10:00 AM 12:00 PM
14	700	Ca, Cd, Cr, and Pb levels in Alabama cave water samples	Johns, Keegan	0	10:00 AM 12:00 PM
15	701	Thiazolidinedione derivatives for diabetes	Thomas, Savanna	0	10:00 AM 12:00 PM
16	702	Optimization of polysulfone-based adsorptive membranes for heavy metal ion removal from water	JONES, BRANDEE	0	10:00 AM 12:00 PM
17	703	Plants vs. plaques: Investigating flavonoid interference with amyloid-beta aggregates in the fight against Alzheimer's disease	McConnell, Mac	0	10:00 AM 12:00 PM
18	704	Voltammetric investigation of the kinetics of heavy metal ion adsorption and desorption	Peterson, Sarah	0	10:00 AM 12:00 PM
19	705	Advancements in liquid crystals and technological applications	Chen, Melody	0	10:00 AM 12:00 PM

20	706	Laser-beam shaping using a neural network to improve chemistry-driven 3D printing	Hakim, Azeem	0	10:00 AM 12:00 PM
21	707	Molecular characterization and phylogenetic analysis of a non-canonical nuclear localization signal within the Merkel cell polyomavirus small tumor antigen	Borges de Oliveira Leal, Raissa	0	10:00 AM 12:00 PM
22	708	Unsymmetrical heptamethine cyanines prevent aggregation	Gomez, Emilia	0	10:00 AM 12:00 PM
23	709	Outstanding electrochemical performance of nickel Hexaaminobenzene and nickel Hexaaminotriphenylene 2D MOFs asymmetric supercapacitors fabricated by electrophoretic deposition	Settles, Danica	0	10:00 AM 12:00 PM
24	710	Adsorptive cathodic stripping analysis of xylazine within fouling-resistant and nanomaterial-enhanced modified electrode sensors	Sheppard, Charles | Stern, Joyce	0	10:00 AM 12:00 PM
25	711	Evaluating thermal behavior of thioridazine-derived double salt ionic liquids for improved drug formulation	Cojocaru, Oana	0	10:00 AM 12:00 PM
26	712	Material systems for fabricating biodegradable microneedles by multiphoton lithography	Jaisankar, Neha	0	10:00 AM 12:00 PM
27	713	Role of toxic dopamine metabolite 3,4-Dihydroxyphenylacetaldehyde (DOPAL) in Parkinson’s Disease: Synthesis and implication for Parkinson’s Disease pathogenesis	Joven, Joven	0	10:00 AM 12:00 PM
28	714	Incorporation of proton transport pathways in Ru-UiO-67 for improved water oxidation	Prince, Laura	0	10:00 AM 12:00 PM
29	715	Synthesis of aryl diketone scaffolds and investigation of Baeyer-Villiger oxidation outcomes	Bush, Kylee	0	10:00 AM 12:00 PM
30	716	Modified nanomaterials engaging in halogen bonding toward explosive detection interfaces for sensor development	Edelman, Benjamin	0	10:00 AM 12:00 PM
31	717	Synthesis of peptidomimetic scaffold: Combating BCL-2 cancer complexes	Assaad, Luke	0	10:00 AM 12:00 PM
32	718	Determination of anionic detergents and arsenic concentrations in water	Zamar, Pablo	0	10:00 AM 12:00 PM
33	719	Measuring the extraction efficiency of a neonicotinoid pesticide from river water using a non-ionic surfactant	Boles, Connor	0	10:00 AM 12:00 PM
34	720	Povarov reactions of chiral 4-isoxazolines with nitrones	Johnson, Anna	0	10:00 AM 12:00 PM
35	721	Generation of congested aldol products through a one-pot enol silane-formation-Mukaiyama aldol reaction	Dulam, Sai | Miller, Owen	0	10:00 AM 12:00 PM
36	722	Net carbonyl ene reactions of alpha-methylstyrene with aldehydes	Mock, Alexandra	0	10:00 AM 12:00 PM
37	723	One-pot alkylation of amides with allyl propionates: Regio- and chemoselectivity	Graff, Remi	0	10:00 AM 12:00 PM
38	724	Synthesis and antiproliferative activity of N,N’-bis-substituted triazolium salts with lipophilic substituents	Forsythe, Autumn	0	10:00 AM 12:00 PM
39	725	Investigation of a simple procedure for the bromination of Benzocaine for incorporation into a multi-step undergraduate organic laboratory synthesis	Tutkowski, Brandon	0	10:00 AM 12:00 PM
40	726	Side chain fluorination of poly(oxazolidinone)s towards high dielectric materials	Vickers, Olivia	0	10:00 AM 12:00 PM
41	727	Mechanochemical aldol condensation of a cyclic dipeptide through liquid-assisted grinding	Barron, Katelyn	0	10:00 AM 12:00 PM
42	900	Employing XRF (X-ray fluorescence) to discover the elemental evolution of image replication lithography	Hodek, Camille	0	10:00 AM 12:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Younger Chemists (YCC) Luncheon
SESSION TYPE:	Networking Event
SESSION LOCATION:	Royal 2
SESSION START TIME:	Mon 10/27/2025 12:00 PM
SESSION END TIME:	Mon 10/27/2025 2:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advances in Electrochemistry and Bioelectrochemistry
SESSION TYPE: Oral
SESSION LOCATION: Harbor B
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 5:05 PM
SESSION HOST: Organizer: Olja Simoska
Organizer: Sanela Martic
Presider: Robert Lazenby

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Welcome and Introduction		5	1:00 PM 1:05 PM
2	728	The power of high information content voltammetry for electrochemical, functional nucleic acid sensors	White, Ryan	30	1:05 PM 1:35 PM
3	729	Aptamer-functionalized nanopipettes for high resolution chemical sensing	Lazenby, Robert	30	1:35 PM 2:05 PM
4		Intermission		15	2:05 PM 2:20 PM
5	730	Innovating carbon-based materials for subsecond monitoring along the gut-brain-immune axis	Ross, Ashley	30	2:20 PM 2:50 PM
6	731	Real-time voltammetric co-detection of electroactive and non-electroactive neurochemicals at single recording sites in rat striatum	Sombers, Leslie	30	2:50 PM 3:20 PM
7	732	Electrochemical detection of biomarkers and pharmaceutical compounds	Chen, Aicheng	30	3:20 PM 3:50 PM
8		Intermission		15	3:50 PM 4:05 PM
9	733	Magnetic bead electrochemical sandwich assays (MBESA) to investigate inflammatory cytokines in organs-on-a-chip platforms	Cliffel, David	30	4:05 PM 4:35 PM
10	734	Effect of SAM chain length on mediated amperometric detection of glucose	Suroviec, Alice	30	4:35 PM 5:05 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemical Biology Innovations for Therapeutics
SESSION TYPE: Oral
SESSION LOCATION: Cypress B
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 4:40 PM
SESSION HOST: Organizer: Yousong Ding
Organizer: Y. George Zheng
Presider: Yousong Ding
Presider: Y. George Zheng

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	1:00 PM 1:05 PM
2	735	Exploring the rich natural products chemistry of deep-water marine habitats	Wright, Amy	25	1:05 PM 1:30 PM
3	736	Unexpected terpenoid alkaloids from millipede secretions	Mevers, Emily	25	1:30 PM 1:55 PM
4	737	Discovery and biosynthesis of a novel 5/5/5/5-tetracyclic diterpene glycoside from myxobacteria	Rudolf, Jeffrey	25	1:55 PM 2:20 PM
5	738	Lost on the cutting room floor: spirocyclic β-lactone polyketides editing spliceosome function	Bachmann, Brian	25	2:20 PM 2:45 PM
6		Break		20	2:45 PM 3:05 PM
7	739	Gatorator: A tool for lead optimization and application in developing heparanase inhibitors	Zhang, Yuzhao	15	3:05 PM 3:20 PM
8	740	GPCR-based sensors for biomedical applications	Peralta Yahya, Pamela	25	3:20 PM 3:45 PM
9	741	*N*-nitroglycine: Widespread biosynthesis and biodegradation of a bacterial nitramine	Caranto, Jonathan	25	3:45 PM 4:10 PM
10	742	Development of synthetic biology approaches for natural product research	Ding, Yousong	25	4:10 PM 4:35 PM
11		Closing Remarks		5	4:35 PM 4:40 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Physical Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus B
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 4:20 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Shanna Estes

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	743	Spectroelectrochemical characterization and vibrational structures of glycolonitrile and other selected cyanohydrins	Gichuhi, Wilson	20	1:00 PM 1:20 PM
2	744	Light-controlled modulation of JAK2 signaling through photoswitchable ligand design	Kell, Shelby	20	1:20 PM 1:40 PM
3	745	Exploring binary ionic liquids on a molecular level	Dutta, Samrat	20	1:40 PM 2:00 PM
4	746	Development of methods for single-molecule studies of membrane proteins in their native environment via force spectroscopy	Ayangbemi, Abideen	20	2:00 PM 2:20 PM
5	747	Effective approaches in teaching physical chemistry	Sengupta, Arkajyoti	20	2:20 PM 2:40 PM
6		Break		0	2:40 PM 2:40 PM
7	748	Quantum mechanics MP2 identification of coordinate quasi-double bonds in cobalt(II) complexes as single molecule magnets	Liu, Yuemin	20	2:40 PM 3:00 PM
8	749	Molecular mechanism of doxorubicin and paclitaxel interactions with neuronal calcium sensors	Miksovska, Jaroslava	20	3:00 PM 3:20 PM
9	750	Effect of the CN group on the reversible isomerization of 9H-fluorene into 1H-fluorene: Photodetachment spectra and computational thermochemistry	Tunstall, Wyatt	20	3:20 PM 3:40 PM
10	751	Variational quantum algorithm for non-Markovian quantum dynamics	Wang, Fei	20	3:40 PM 4:00 PM
11	752	D-Retro-Inverso peptide inhibitors for mouse serum amyloid A3 aggregation	Chesney, Andrew	20	4:00 PM 4:20 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Plasmonic Nanoparticles and Applications--Mechanistic Studies
SESSION TYPE: Oral
SESSION LOCATION: Cypress A
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 4:20 PM
SESSION HOST: Organizer: Yongmei Wang
Presider: Shengli Zou
Presider: Zhenrong Zhang

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	753	Spectroelectrochemistry and electrocatalysts of plasmonic nanoparticles	Pan, Shanlin	25	1:00 PM 1:25 PM
2	754	Quantifying steady-state plasmon-generated hot carriers	Wei, Wei	25	1:25 PM 1:50 PM
3	755	Plasmonic heating induced phase transition and melting of oxide	Zhang, Zhenrong	25	1:50 PM 2:15 PM
4	756	Mechanistic study of energy transfer between emitters and metallic nanoparticles under varying conditions	Zou, Shengli	25	2:15 PM 2:40 PM
5		coffee break		30	2:40 PM 3:10 PM
6	757	Plasmon-driven bond cleavage in molecular adsorbates	Wang, Hui	25	3:10 PM 3:35 PM
7	758	Nanoparticle-on-mirror cavities for fundamental studies of light-matter interactions	Bangle, Rachel	25	3:35 PM 4:00 PM
8	759	Magneto-plasmonic nanomaterials: Unraveling the potential for enhanced optical modulation in Cd/Sn/O nanocrystals	Pazoki, Ali	20	4:00 PM 4:20 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: PMSE/POLY Symposium: Synthesis and Characterization in Sustainability
SESSION TYPE: Oral
SESSION LOCATION: Magnolia A
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 5:10 PM
SESSION HOST: Organizer: Reza Foudazi
Presider: Reza Foudazi

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	760	Beyond the polymer itself - how the chemistry of monomer and polymer synthesis enables chemistry	Germack, David	25	1:00 PM 1:25 PM
2	761	PolyCrit: An open-access database for streamlining polymer characterization via liquid chromatography at critical conditions	Baker, Dillon	20	1:25 PM 1:45 PM
3	762	Shaping the future of soft matter characterisation: Synchrotron X-ray scattering at the molecular scale	Wasik, Patryk	20	1:45 PM 2:05 PM
4	763	Micellization and lyotropic liquid crystal formation of block copolymers in solvent mixture	Tabatabaei, Seyed Mostafa	20	2:05 PM 2:25 PM
5	764	Photo-crosslinkable block polymer micelles with “universal” solvent compatibility	Collins, Coby	20	2:25 PM 2:45 PM
6	765	Using α-lipoic acid to synthesize degradable nanocarriers via PISA	Eades, Cabell	20	2:45 PM 3:05 PM
7		Intermission: Coffee Break		15	3:05 PM 3:20 PM
8	766	Unraveling the linear-to-bottlebrush transition by linear viscoelastic response to increasing side chain length	Jang, Jaehoon	20	3:20 PM 3:40 PM
9	767	Quantifying hydrophilicity in polyelectrolytes and polyzwitterions	Abou Hamad, Nagham	20	3:40 PM 4:00 PM
10	768	DSC scans of composites can lead to misleading conclusions	Blum, Frank	25	4:00 PM 4:25 PM
11	769	Immiscible polydimethylsiloxane and polybutadiene vitrimer Blends	Ricarte, Ralm	25	4:25 PM 4:50 PM
12	770	RoboMapper: An automated platform for thin film fabrication using conjugated polymers	Muthumali, Thusharika	20	4:50 PM 5:10 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Prof. Donald Kurtz Celebration of Retirement
SESSION TYPE: Oral
SESSION LOCATION: Cypress C
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 5:10 PM
SESSION HOST: Organizer: Jonathan Caranto
Organizer: Zachary Tonzetich
Presider: Zachary Tonzetich
Presider: Jonathan Caranto

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	771	Great fun exploring oxidation's by nonheme iron centers in biology	Que, Lawrence	30	1:00 PM 1:30 PM
2	772	Towards the phosphoester hydrolase mimics: Synthesis, characterization and catalytic activities of cobalt(II) complexes in aqueous media	Musie, Ghezai	30	1:30 PM 2:00 PM
3	773	A fresh look at how heme enzymes oxidize aromatic amino acids	Liu, Aimin	30	2:00 PM 2:30 PM
4	774	Reduced metallocorroles: New motifs for coordination chemistry and catalysis	Tonzetich, Zachary	30	2:30 PM 3:00 PM
5		Coffee Break		20	3:00 PM 3:20 PM
6	775	Photoinduced electron transfer: Past, present and future	Schanze, Kirk	30	3:20 PM 3:50 PM
7	776	Radical-SAM enzymes *nature's choice to initiate radical reactions*	Hoffman, Brian	30	3:50 PM 4:20 PM
8	777	From chemistry to biochemistry (and back again): Snapshots from a forty year journey	Bonomi, Francesco	30	4:20 PM 4:50 PM
9		Closing Remarks		20	4:50 PM 5:10 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Recent Advances in the Chemistry of Multinuclear Transition Metal Complexes
SESSION TYPE: Oral
SESSION LOCATION: Harbor A
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 5:00 PM
SESSION HOST: Organizer: Michael Stollenz
Presider: Michael Stollenz

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	778	Magnetic and quantum properties of a new class of single-molecule magnets: 'Molecular nanoparticles' of magnetic iron oxides	Christou, George	30	1:00 PM 1:30 PM
2	779	Ligand effects in cation-responsive polymerization catalysts	Brewster, Timothy	30	1:30 PM 2:00 PM
3	780	Group 14-substituted phosphine ligands grafted onto MOF materials and other solid supports for selective Si and B functionalization of unsaturated compounds	Montiel-Palma, Virginia	30	2:00 PM 2:30 PM
4	781	The intricacies of the bonding situation of Ni–ML_n (M = Al, Ga, In) complexes and their catalytic activity in the hydrogenation of styrene and hydrogen evolution from NH_3BH_3	Munoz-Hernandez, Miguel	30	2:30 PM 3:00 PM
5		Coffee Break		20	3:00 PM 3:20 PM
6	782	Post-synthetic modification of trimetallic extended metal atom chains	Walde, Rebecca	20	3:20 PM 3:40 PM
7	783	Partial reduction of aromatic N-Heterocycles by heterobimetallic transition metal-group 13 complexes	Vazquez, Mayra	20	3:40 PM 4:00 PM
8	784	Catalytic investigation of pentacoordinated platinum complexes featuring polydentate phosphine ligands with Si and Ge	Secrist, Carlee	20	4:00 PM 4:20 PM
9	785	Polar paddlewheel complexes for catalytic hydrogenation of unsaturated substrates	Marquez Rios, Luis	20	4:20 PM 4:40 PM
10	786	Synthesis, characterization and applications of rhodium *tris*-(oxypyridine)borate complexes	Matas, Gustavo	20	4:40 PM 5:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Structures and Properties of Photoactive Materials
SESSION TYPE: Oral
SESSION LOCATION: Harbor C
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 4:30 PM
SESSION HOST: Organizer: Dongmao Zhang
Organizer: Tom Hopper
Organizer: Shengli Zou
Presider: Bhoj Gautam

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	787	Investigating interlayer charge-transport in 2D lead-halide perovskites	Kretchmer, Joshua	25	1:00 PM 1:25 PM
2	788	Hot-carrier trapping preserves high quantum yields but limits optical gain in InP-based quantum dots	Hopper, Tom	25	1:25 PM 1:50 PM
3	789	Radiation-driven phase and surface modifications in $Mo_2Ti_2C_3T_X$ MXenes	Gautam, Bhoj	25	1:50 PM 2:15 PM
4	790	Using in situ analysis to design ex situ solid-state syntheses of nanocrystalline spinel targets	Guiton, Beth	25	2:15 PM 2:40 PM
5	791	Innovating fluorescent thiazolo[5,4-d]thiazole dyes for photocatalysis, photochromism, and biosensing applications	Walter, Michael	25	2:40 PM 3:05 PM
6		Coffee break		20	3:05 PM 3:25 PM
7	792	Integrated spectrophotometer for UV-vis and fluorescence measurements with extended linear dynamic range	Yoler, Christopher	15	3:25 PM 3:40 PM
8	793	Doping heptazine-based g-C_3N_4 structures for photocatalysis: how to improve chemical stability and electron donor/acceptor properties: A computational study	Lischka, Hans	25	3:40 PM 4:05 PM
9	794	Size-transferable prediction of excited state properties for molecular assemblies with machine-learned exciton model	Liu, Fang	25	4:05 PM 4:30 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Ultrafast and Nonlinear Spectroscopy
SESSION TYPE: Oral
SESSION LOCATION: Nautilus C
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 3:40 PM
SESSION HOST: Organizer: Paul Ohno
Organizer: Bryan Kudisch
Organizer: Sean Roberts
Presider: Paul Ohno
Presider: Bryan Kudisch
Presider: Sean Roberts

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	795	Tracking molecular behavior at the bacterial interface: Adjuvant effects revealed by second harmonic scattering	Calhoun, Tessa	30	1:00 PM 1:30 PM
2	796	Finite volume effects in nanodroplets characterized using vibrational sum frequency scattering spectroscopy	Pullanchery, Saranya	20	1:30 PM 1:50 PM
3	797	Increasing excited state lifetimes of Cu(I) coordination complexes via strategic surface binding	Hanson, Kenneth	20	1:50 PM 2:10 PM
4		Break		20	2:10 PM 2:30 PM
5	798	Comparing second harmonic generation and two-photon fluorescence from plasmonic nanoparticles and quantum materials	Haber, Louis	30	2:30 PM 3:00 PM
6	799	Concurrently monitoring ultrafast surface and gas-phase dynamics in solid–gas interfacial reactions	Segrest, Eric	20	3:00 PM 3:20 PM
7	800	How do deadly bacteria react to being skinned alive? A second harmonic scattering study	Pulver, Kyra	20	3:20 PM 3:40 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Xray Crystallography - Solving Chemical Problems
SESSION TYPE: Oral
SESSION LOCATION: Magnolia B
SESSION START TIME: Mon 10/27/2025 1:00 PM
SESSION END TIME: Mon 10/27/2025 5:10 PM
SESSION HOST: Organizer: Will Lynch
Organizer: Clifford Padgett
Presider: Will Lynch
Presider: Clifford Padgett

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	1:00 PM 1:05 PM
2	801	Crystal structures and properties of phenyl sulfonium and phosphonium salts	Lynch, Will	25	1:05 PM 1:30 PM
3	802	X-ray crystallography and DFT calculations at a primarily undergraduate institution	Yousufuddin, Muhammed	25	1:30 PM 1:55 PM
4	803	Complex structural disorder as a mechanism for achieving charge balance, semiconducting behavior, and tunable transport in thermoelectric Zintl-like materials	Baranets, Sviatoslav	25	1:55 PM 2:20 PM
5	804	Super-systems of crystallography: Halogen bonding in dimethylpyridine vs. dimethylpyridine-N-oxide cocrystals: Are we obsessing or observing?	Ritzer, Meridee	25	2:20 PM 2:45 PM
6		Intermission		20	2:45 PM 3:05 PM
7	805	X-ray crystallographic analysis of lanthanide heteroaromatic *N*-oxide complexes	Padgett, Clifford	25	3:05 PM 3:30 PM
8	806	Synthesis, structure, and bonding of phenylated ruthenium complexes supported by 4,4 -di-tert-butyl-2,2 -dipyridyl (*t*-bipy) and 4',5,5''-tri-tert-butyl-2,2':6',2''-terpyridine (tBu$_3$-terpy) ligands	Quillian, Brandon	25	3:30 PM 3:55 PM
9	807	Expecting the unexpected: Using XRD to solve chemical problems in the coordination chemistry of new heterocyclic chalcogenones	Rabinovich, Daniel	25	3:55 PM 4:20 PM
10	808	Solvent-dependent dimerization in copper(I)-TMPA complexes: Structural origins of distinct redox behavior	Hematian, Shabnam	25	4:20 PM 4:45 PM
11	809	Synthesis and investigation of a novel orthophosphate compound Ba(Sb0.5Al0.5)(PO4): corrosion inhibition resistance and optical properties	Kadimi skalli, Safae	25	4:45 PM 5:10 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research in the South-West Region
SESSION TYPE: Oral
SESSION LOCATION: Pelican Room
SESSION START TIME: Mon 10/27/2025 1:15 PM
SESSION END TIME: Mon 10/27/2025 4:25 PM
SESSION HOST: Organizer: Molly Atkinson
Organizer: Christopher Randles
Presider: Molly Atkinson

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	1:15 PM 1:20 PM
2	810	Using the math-up skills test (MUST) as an early assessment of arithmetic automaticity for general chemistry	Alivio, Theodore	20	1:20 PM 1:40 PM
3	811	Impact of introducing the learning cycle to chemistry students: A longitudinal study across multiple chemistry courses	Mamiya, Blain	20	1:40 PM 2:00 PM
4	812	Using conflicting atomic-level models to deepen chemical understanding	Villalta-Cerdas, Adrian	20	2:00 PM 2:20 PM
5	813	A socio-cognitive perspective on activating productive conceptual resources in the context of chemical equilibrium	Day, Elizabeth	20	2:20 PM 2:40 PM
6		Break		20	2:40 PM 3:00 PM
7	814	Enabling general chemistry students to take part in experimental design activities	Smith, Kenneth	20	3:00 PM 3:20 PM
8	815	A new kind of bond: A pilot study of faculty ambassadorship	Herridge, Michelle	20	3:20 PM 3:40 PM
9	816	The challenges of transgender and nonbinary graduate students in chemistry: A qualitative study on trans identity, science culture, and institutional support using reflexive thematic analysis	Vincent-Ruz, Paulette	20	3:40 PM 4:00 PM
10	817	Leveraging chemistry education research to lead change: Support for vulnerable populations	Wilson-Kennedy, Zakiya	20	4:00 PM 4:20 PM
11		Closing Remarks		5	4:20 PM 4:25 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Contaminants of Emerging Concern: Analytical Methods, Environmental Processes, and Remediation Strategies
SESSION TYPE: Oral
SESSION LOCATION: Citrus B
SESSION START TIME: Mon 10/27/2025 1:15 PM
SESSION END TIME: Mon 10/27/2025 4:50 PM
SESSION HOST: Organizer: Jianzhou He
Organizer: Dengjun Wang
Presider: Jianzhou He
Presider: Dengjun Wang

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	1:15 PM 1:20 PM
2	818	Role of natural ions in activating ferrate(VI) to enhance abatement of micropollutants in water	Sharma, Virender	20	1:20 PM 1:40 PM
3	819	Ammonia electrosynthesis from nitrate contaminants: A promising path to closing the nitrogen cycle	Feng, Xiaofeng	20	1:40 PM 2:00 PM
4	820	Optimizing neonicotinoid pesticide removal using Nanobiochars: Insights into sorption performance, kinetics, mechanisms, and reusability	Radwan, Islam	20	2:00 PM 2:20 PM
5	821	Towards environmentally sustainable photocatalytic composites for ammonia mitigation under visible light irradiation	Al Fahim, Abdullah | Ezazi, Mohammadamin	15	2:20 PM 2:35 PM
6	822	Addressing near shore pollution via *in situ* nutrient sinks in Mobile Bay, Alabama	Rice, Sarah	15	2:35 PM 2:50 PM
7		Session Break		10	2:50 PM 3:00 PM
8	823	Particle size-dependent partitioning of phosphorus in aquaculture pond and estuarine systems	Kong, Xiangcheng	15	3:00 PM 3:15 PM
9	824	Recalcitrant organic phosphorus: A hidden source of bioavailable phosphorus to fuel harmful algal blooms in freshwater systems	TASNIM, IFFAT	15	3:15 PM 3:30 PM
10	825	Systematic study of various Mg2+/Al3+layered double hydroxide formulations for phosphate and nitrate removal from water	Kitzel, Patrick	15	3:30 PM 3:45 PM
11	826	Fluorogenic and chromogenic Cu-dansyl complexes as probes for organophosphorus nerve agent detection	Ogunyemi, Bukola	15	3:45 PM 4:00 PM
12	827	Surface engineering and modification of metal-organic framework for wastewater remediation	Raji, oluwasegun	15	4:00 PM 4:15 PM
13	828	Solvothermal liquefaction of food waste: Process liquid recirculation for enhanced biocrude oil production and solvent recovery	Bhowmick, Rakesh	15	4:15 PM 4:30 PM
14	829	Matrix effects on ZNR adsorption of PFAS	Clark, Maren	15	4:30 PM 4:45 PM
15		Closing Remarks		5	4:45 PM 4:50 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: REACh: Rare Earths and Actinide Chemistry Symposium
SESSION TYPE: Oral
SESSION LOCATION: Magnolia C
SESSION START TIME: Mon 10/27/2025 1:20 PM
SESSION END TIME: Mon 10/27/2025 4:50 PM
SESSION HOST: Organizer: Anne Gorden
Organizer: Katherine Johnson
Presider: Anne Gorden
Presider: Katherine Johnson

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		10	1:20 PM 1:30 PM
2	830	Exploring the nature of f-element soft donor interactions using electronically tunable Azolate ionic liquids	Rogers, Robin	30	1:30 PM 2:00 PM
3	831	Molecular-level understanding of transition metal separations for nuclear forensics applications	Wall, Nathalie	20	2:00 PM 2:20 PM
4	832	Enhanced methods for thorium and rare-earth element extraction from metal mixtures	Werner, Eric	20	2:20 PM 2:40 PM
5	833	Recycling uranium: Approaches for used nuclear fuel disposition	Mayes, Richard	20	2:40 PM 3:00 PM
6		Coffee		40	3:00 PM 3:40 PM
7	580	Evaluating the performance of solid sorbents for volitile radioiodine capture	Johnson, Katherine	30	3:40 PM 4:10 PM
8	835	Utilizing magnetic susceptibility for enhanced extraction of paramagnetic ions	Lake, Bailey	20	4:10 PM 4:30 PM
9	836	Schiff bases as Soft Donor Ligands for f-element coordination in separations and upconversion	Gorden, Anne	20	4:30 PM 4:50 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: How to Start a Startup, a Roundtable
SESSION TYPE: Oral
SESSION LOCATION: Flamingo Room
SESSION START TIME: Mon 10/27/2025 1:30 PM
SESSION END TIME: Mon 10/27/2025 3:55 PM
SESSION HOST: Organizer: Michel Johnson
Presider: Bill Easter
Presider: RAFAEL CAAMANO

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introduction		5	1:30 PM 1:35 PM
2	837	Importance of intellectual property for startups	Sabnis, Ram	20	1:35 PM 1:55 PM
3	838	Leveraging incubation business programs as a launchpad for scientific entrepreneurship	CAAMANO, RAFAEL	20	1:55 PM 2:15 PM
4	839	The accidental entrepreneur’s journey: Tips for company survival	Easter, Bill	20	2:15 PM 2:35 PM
5	840	Advice for starting a start-up: the Collaborations Pharmaceuticals, Inc. experience	Ekins, Sean	20	2:35 PM 2:55 PM
6	841	How to start a start up rountable	CAAMANO, RAFAEL | Easter, Bill	30	2:55 PM 3:25 PM
7		Networking Break		30	3:25 PM 3:55 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Ion Mobility-Mass Spectrometry: New Frontiers in Structural Analysis and Separations
SESSION TYPE: Oral
SESSION LOCATION: Nautilus A
SESSION START TIME: Mon 10/27/2025 1:30 PM
SESSION END TIME: Mon 10/27/2025 4:40 PM
SESSION HOST: Presider: Christian Bleiholder
Organizer: Francisco Alberto Fernandez-Lima
Presider: Theresa Nguyen

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	842	Year long assessment of the MOBILion MOBIE system: An overview of platform advances and a perspective outlook on high-resolution ion mobility	Dodds, James	20	1:30 PM 1:50 PM
2	843	Acoustic ion manipulation: An electric-field-free approach to control and separate ions at atmospheric pressure	Shelley, Jacob	20	1:50 PM 2:10 PM
3	844	Strain-level differentiation of microorganisms using high-resolution ion mobility mass spectrometry and machine learning	Hamid, Ahmed	20	2:10 PM 2:30 PM
4	845	Native top-down characterization of proteoforms and their complexes in breast cancer cells	Gomes, Fabio	20	2:30 PM 2:50 PM
5		Break		30	2:50 PM 3:20 PM
6	846	Exploring multispecific antibody-antigen interactions through tandem-trapped ion mobility spectrometry (tandem-TIMS)	Liu, Fanny	20	3:20 PM 3:40 PM
7	847	Protein solution structures in the absence of solvent: Rugged energy landscape and glass-like behavior	Bleiholder, Christian	20	3:40 PM 4:00 PM
8	848	Detection of RNA modifications and isomers by UPLC-ion-mobility MS	Silva Sanchez, Cecilia	20	4:00 PM 4:20 PM
9	849	Development of a portable SLIM-Based ion-mobility platform for trace-level detection	Gandhi, Viraj	20	4:20 PM 4:40 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancements in Nuclear Chemistry
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 2:00 PM
SESSION END TIME: Mon 10/27/2025 4:00 PM
SESSION HOST: Organizer: Deborah Penchoff
Organizer: Vasileios Anagnostopoulos

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	850	Experimental subcritical assembly design using HALEU fuel	Rivera-Martinez, Omehvy	0	2:00 PM 4:00 PM
2	851	The controlled capture and release of f-elements using photochemical input	Garcia, Barbara	0	2:00 PM 4:00 PM
3	852	Development of base-stabilized ligand modified electrodes for nuclear material reprocessing	Cordoba, Isabel	0	2:00 PM 4:00 PM
4	853	Ligand modified TiO_2 electrodes for actinide studies	LACAU, RODRIGO | Gonzalez Moya, Johan	0	2:00 PM 4:00 PM
5	854	Evaluation of nano-indentation on etched samples of aluminum 6061-T6, steel 316L, and ofhc copper	Henderson, Jasmine	0	2:00 PM 4:00 PM
6	855	Development and characterization of functionalized photoanodes for the spectroscopic and electrochemical sensing of *f*-elements	Hack, Bryanah	0	2:00 PM 4:00 PM
7	856	Exploring cerium compounds as effective training tools for competency development in radioactive material handling	Crandell, Cassidy	0	2:00 PM 4:00 PM
8	857	Complex formations of lanthanide and hydroxamate siderophores: Spectroscopic and titration studies	Lee, Joseph	0	2:00 PM 4:00 PM
9	858	Sludge batch 11 compilation at the Savannah River Site	Dekarske, John	0	2:00 PM 4:00 PM
10	859	Complexation of americium for applications in nuclear fuel separations	Espinosa Canon, Valentina	0	2:00 PM 4:00 PM
11	860	Structural and thermochemical evaluations of uranium binding	Willis, Emily	0	2:00 PM 4:00 PM
12	861	Structural and thermochemical evaluations of molybdenum binding	Nguyen, Kaithlyne	0	2:00 PM 4:00 PM
13	862	Thermal ionization mass spectroscopy metadata exploration for performance optimization	Spillman, Grayson	0	2:00 PM 4:00 PM
14	863	Structural and thermochemical evaluations of yttrium complexation	Chee-Awai, Amanda	0	2:00 PM 4:00 PM
15	864	Structural and thermochemical evaluations of technetium complexation	Kishore, Sunitha	0	2:00 PM 4:00 PM
16	865	Investigation of thermodynamic properties of americium and curium complexation	Marks, Noah	0	2:00 PM 4:00 PM
17	866	Ionization energies of thorium and cerium: Relativistic effects in f-block modeling	Chewning, Hunter	0	2:00 PM 4:00 PM
18	867	Machine learning methodologies for predicting binding and separation characteristics in complex molecular systems	Poston, Julian	0	2:00 PM 4:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Frontiers in Nucleic Acids
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 2:00 PM
SESSION END TIME: Mon 10/27/2025 4:00 PM
SESSION HOST: Organizer: Jessica Siemer
Organizer: Markus Germann
Organizer: Yulia Gerasimova
Organizer: Dmitry Kolpashchikov

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	868	Re-purposing a dapoxyl-binding aptamer for modular thioflavin T-based bioanalytic systems	Alazmi, Shaleh	0	2:00 PM 4:00 PM
2	869	Two-color multicomponent deoxyribozyme probe assay for differentiation of NANOG and NANOGP8 in glioblastoma exosomal DNA	Veleke, Samuel	0	2:00 PM 4:00 PM
3	870	Modulating small molecule recognition by aptamers using triplex-forming oligonucleotides	Kapidzic, Harun	0	2:00 PM 4:00 PM
4	871	Conserved G-quadruplex structures in the RNA genomes of orthoflaviviruses. Potential therapeutic targets?	Le, Thao	0	2:00 PM 4:00 PM
5	872	Mixed DNA sequence binding compounds make “undruggable” DNA targets “druggable”	Paul, Ananya	0	2:00 PM 4:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Environmental Chemistry
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 2:00 PM
SESSION END TIME: Mon 10/27/2025 4:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	873	The effects of the prescence of polypropylene microplastics on sea water droplet evaporation	Duranty, Edward	0	2:00 PM 4:00 PM
2	874	Understanding the cloud condensation nuclei activity of fresh and aged phenolic acid aerosol particles	Tran, Minh	0	2:00 PM 4:00 PM
3	875	Identifying emerging indoor pollution sources linked to air fryer and deep fryer cooking practices	Bui, Khe H	0	2:00 PM 4:00 PM
4	876	Cloud condensation nuclei activity of fresh and aged syringic acid aerosol particles	Harper, Rayhanna	0	2:00 PM 4:00 PM
5	877	Targeted quantification of carbohydrates in seawater matrices: Integrating ion-exchange resin with GC-MS/MS analysis	Wilson, Cody	0	2:00 PM 4:00 PM
6	878	Adsorption of PFAS on amino-functionalized porous organosilica materials	Vasiliev, Aleksey	0	2:00 PM 4:00 PM
7	879	Nutrient remediation in Florida soils compared to a commonly used soil amendment	Parker, Sarah	0	2:00 PM 4:00 PM
8	880	Sustainable removal of ofloxacin from water using NADES-ionic liquid-enhanced alginate hydrogel beads	Bakare-Abidola, Taiwo	0	2:00 PM 4:00 PM
9	881	Mapping the reaction networks of Criegee intermediates formed in the ozone-assisted oxidation of acyclic and endocyclic C_6 alkenes	Clarke, Zachary	0	2:00 PM 4:00 PM
10	882	Mitigating arsenic contamination from fertilizers using goethite and magnetite nanoparticles: A sustainable remediation approach	Perry, BreAyshia	0	2:00 PM 4:00 PM
11	883	Sponges as bioindicators: A longitudinal study of water and sediment quality in southeastern Louisiana (2023–2025)	Abbasinohoji, Fahime	0	2:00 PM 4:00 PM
12	884	Fluorinated organic linker modification for the synthesis and characterization of metal–organic frameworks: Application in the remediation of PFAS-impacted waters	Radill, Eranga | Hussein, Islam	0	2:00 PM 4:00 PM
13	885	Essential trace and macromineral distribution in 80 avocado cultivars of the USDA germplasm collection	Reed, Alison	0	2:00 PM 4:00 PM
14	886	Palladium-assisted hydrothermal carbonization of loblolly pine for high-performance CO2 adsorbents	Saha, Swarna	0	2:00 PM 4:00 PM
15	887	Green iron-titanium mixed nanoparticles for enhanced dye degradation	Fernando, Harshica	0	2:00 PM 4:00 PM
16	888	Investigating site selection methods and UAV integration for watershed monitoring	Basnet, David	0	2:00 PM 4:00 PM
17	889	Modeling environmental oxidations of lignin using Bobbitt’s salt	Vargas, Karen	0	2:00 PM 4:00 PM
18	890	Fate and transport of microplastics in groundwater	Myers, Claire	0	2:00 PM 4:00 PM
19	891	Remediation of PFAS-contaminated water with zirconium-based MOFs: An evaluation of adsorption efficiency	Ocheje, Joshua	0	2:00 PM 4:00 PM
20	892	Catalyzing plastic degradation: Novel mechanochemistry treatment for sustainable plastic waste management	Zhang, Jessica	0	2:00 PM 4:00 PM
21	893	Target, suspect, and non-target screening of per- and poly-fluoroalkyl substances (PFAS) in wastewater treatment plant effluent using ion mobility spectrometry–mass spectrometry	Zoh, Kyung-Duk	0	2:00 PM 4:00 PM

22	894	Synthetic DNAzyme sensor for cadmium detection using a hydrogel-based fluorescent platform	Burton, Kameron	0	2:00 PM 4:00 PM
23	895	Role of environmental factors in the aquatic environment on the adsorption and desorption behavior of 1,4-Dioxane onto microplastics	Tidwell, Lilla	0	2:00 PM 4:00 PM
24	896	Influence of different microplastic surface aging conditions on the sorption and transport mechanisms of 1,4- dioxane in aqueous media: Isotherm and kinetic studies	Koku Hannadige Abeysooriya, Dushmantha	0	2:00 PM 4:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 2:00 PM
SESSION END TIME: Mon 10/27/2025 4:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	897	*De-toxic tilt test*: Developing a greener, safer, and cost-effective salivary assay for human stress biomarkers	McCreery, Scott | Toone, Josiah	0	2:00 PM 4:00 PM
2	898	Synthesis and characterization of branched lipoic acid-functionalized poloxamers for enhanced cell protection under oxidative stress	Verma, Aayush	0	2:00 PM 4:00 PM
3	899	Kinetics and mechanism of nucleophilic aromatic substitutions of trifluorobenzonitrile with thiols	Matera, Kelly	0	2:00 PM 4:00 PM
4	901	Photoswitchable glycans: Using molecular dynamics simulations to investigate conformational sampling of polysaccharides	Reid, Brian	0	2:00 PM 4:00 PM
5	902	Investigation of the Lewis basicity of small organics interacting with uranium hexafluoride	Delisio, Gianna	0	2:00 PM 4:00 PM
6	903	Quantum chemistry characterization of pyrrole diradicals	Burke, Julian	0	2:00 PM 4:00 PM
7	904	GC–MS and DFT investigation of the pyrolysis of acetic anhydride in the gas phase	Lamour-Johnson, Dimitri | Agyekum, Isaac	0	2:00 PM 4:00 PM
8	905	Analysis of the effects of UV weathering on military coatings on 1008 steel and 2024 aluminum substatres	Norris, Sam	0	2:00 PM 4:00 PM
9	906	The minimum amount of zinc required to galvinize steel	Tisdale, Julius	0	2:00 PM 4:00 PM
10	907	Effect of polyethylene glycol-based solvents and precursor salts on zinc oxide nanoparticle formation under microwave irradiation	Adams, Theo	0	2:00 PM 4:00 PM
11	908	Exploring the aryl side chain of nintedanib: Synthetic strategies to access novel derivatives	Moody, Kayla | Bridges, Madeline	0	2:00 PM 4:00 PM
12	909	Accessing acremostrictin: Synthetic scale up and reaction discovery	Clark, Annika	0	2:00 PM 4:00 PM
13	910	Structural and functional characterization of ToV nuclease nsp12	Abercrombie, Heidi	0	2:00 PM 4:00 PM
14	911	Progress towards the Hofmann rearrangement of heteroaryl carboxamides to afford heteroaryl amino complexant synthons	Wood, Shayla	0	2:00 PM 4:00 PM
15	912	Investigations into microwave-assisted ring-opening polymerizations of epsilon-caprolactone for polymer synthesis and curriculum development	Polvino, Alivia | Bidema, Katelyn	0	2:00 PM 4:00 PM
16	913	Design and computational investigation of an aminotroponiminate supported zinc catalyst designed to promote intermolecular hydroamination	Bolinger, John	0	2:00 PM 4:00 PM
17	914	Development of a miniature mass spectrometer to detect volatile organic compounds	Rodriguez, Arturo	0	2:00 PM 4:00 PM
18	915	Controlled flow synthesis of polydopamine via 3D printed resin microfluidic devices	Sanchez, Mae | Arwood, Ada	0	2:00 PM 4:00 PM

19	916	Development of BTEX monitoring with APPI-MS using gas phase dilution apparatus with sorbent tube for gas capture/release	Vandergriff, Ella	0	2:00 PM 4:00 PM
20	917	Most efficient wood grit to filter microbial present water	Nguyen, Long	0	2:00 PM 4:00 PM
21	918	Viscosity analysis of thermally responsive phospholipids for microfluidic space applications	Nasco, Rome	0	2:00 PM 4:00 PM
22	919	Solar photodegradation of minoxidil in simulated natural water samples	Armes, Maggie	0	2:00 PM 4:00 PM
23	920	Preparation and complexation assays of a polythiourea host for halides	Cull, Germari	0	2:00 PM 4:00 PM
24	921	Fused ring poly(arylene vinylene)s via ROMP	Rodriguez, Wandy	0	2:00 PM 4:00 PM
25	922	Merkel Cell Polyomavirus small T antigen localizes to the nucleus via a noncanonical hydrophobic nuclear localization signal independent of classical or proline/tyrosine motifs	Zinn, Noelle	0	2:00 PM 4:00 PM
26	923	Investigating β-lactam prodrug selectivity	Armstrong, Hannah	0	2:00 PM 4:00 PM
27	924	Method development for the simultaneous analysis of kavalactones and flavokavains in traditional and commercial kava products	Griffin, Matthew	0	2:00 PM 4:00 PM
28	925	Mediation of charge transfer from CdSe quantum dots to methylene blue by cucurbit[n]uril	Pierce, Kaitlyn | Thompson, Melinda	0	2:00 PM 4:00 PM
29	926	Transition metal Heliphyrin complexes as electrocatalysts for CO_2 reduction	Cameron, Emily	0	2:00 PM 4:00 PM
30	927	Synthesis and characterization of glycosylated self-assembling multi-domain peptides	Adesanya, Tomi	0	2:00 PM 4:00 PM
31	928	Solid phase peptide microwave synthesis and analytical characterization of opioid peptide derivatives containing cyclizations via Sonogashira linkages	Dove, Adrianna | Feldheim, Karly | Odler, Adam	0	2:00 PM 4:00 PM
32	929	Probing light- versus dark-state preferential binding of a microbial sensory photoreceptor to its transducer: Connecting structural models to signaling mechanisms	Palmer, Donta	0	2:00 PM 4:00 PM
33	930	Forming bonds: Expanding our ACS student chapter through outreach and opportunity	Goupalova, Marina	0	2:00 PM 4:00 PM
34	931	Cell-permeant degrader based on a PRL3 nanobody, NB91	Bliss, Gracie	0	2:00 PM 4:00 PM
35	932	Novel cellulose ethers esters for photodegradable plastics	Narby, Laura	0	2:00 PM 4:00 PM
36	933	Structural analysis of saccharides using the AMOEBA polarizable force field	Ophof, Riley	0	2:00 PM 4:00 PM
37	934	Transition metal doped TiO_2 nanoparticles for optimized drug delivery systems	White, Chloe	0	2:00 PM 4:00 PM
38	935	Characterization of cytosolic abundant heat-soluble G protein through preservation of alcohol dehydrogenase activity under heat stress	Dixit, Aarush	0	2:00 PM 4:00 PM
39	936	Carbon dot synthesis and characterization using hydrophobic DES solutions	Vanterpool, Jasmyn	0	2:00 PM 4:00 PM
40	937	Synthesis and electrochemical characterization of an extended family of pyrazolato-based octanuclear iron complexes	Enriquez, Justin | Lee, Lizt | Lopez, Esteban | Manfredi, Philip | Perez, Alexander | Rodriguez, Juan | Ronquillo, Juan | Yantani, Luca	0	2:00 PM 4:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	UCF Chemistry Open House
SESSION TYPE:	Special Event
SESSION LOCATION:	Atrium - Physical Sciences Building
SESSION START TIME:	Mon 10/27/2025 3:30 PM
SESSION END TIME:	Mon 10/27/2025 6:30 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Chemistry in the Sunshine Reception
SESSION TYPE:	Special Event
SESSION LOCATION:	Majestic Ballroom
SESSION START TIME:	Mon 10/27/2025 6:00 PM
SESSION END TIME:	Mon 10/27/2025 10:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research General Program
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 7:00 PM
SESSION END TIME: Mon 10/27/2025 9:00 PM
SESSION HOST: Organizer: Tamra Legron-Rodriguez
Organizer: Christopher Randles

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	938	Investigating student motivation and anxiety in traditional and active learning chemistry classrooms	Negron, Erick	0	7:00 PM 9:00 PM
2	939	A multi-channel data analysis of the relationship between test anxiety, test performance, and working memory	Roshandel, Marjan	0	7:00 PM 9:00 PM
3	940	Can AI case studies improve lab experience for students?	Veige, Melanie	0	7:00 PM 9:00 PM
4	941	A simple, quick experimental determination of Planck's constant	Zuidema, Daniel	0	7:00 PM 9:00 PM
5	942	A study on pre-service and in-service teachers' understanding of chemistry learning elements in the revised Korean national elementary science curriculum (II)	Young Tae, Kong	0	7:00 PM 9:00 PM
6	943	A comparative analysis of the new junior high school science textbooks in Korea and Japan: Focusing on the chemistry domain and the Science and Society domain	Young Tae, Kong	0	7:00 PM 9:00 PM
7	944	Broaching science information ethics with K-12 students through hypothetical scenarios	Lam, Matilynn	0	7:00 PM 9:00 PM
8	945	A comparison of self-confidence and future outlook between forensic science students	Bechard, Cameron	0	7:00 PM 9:00 PM
9	946	Very large-scale organic chemistry lab reform	Edwards, Joshua	0	7:00 PM 9:00 PM
10	947	How mentors and role models convey implicit science norms to first-generation college students across three universities	Hosbein, Kathryn	0	7:00 PM 9:00 PM
11	948	Empowering the next generation of environmental stewards: A case study of the Alabama youth action for Sustainability Summit (AL-YASS)	Hayden, Katherine	0	7:00 PM 9:00 PM
12	949	Twelve months of Green Chemistry at Georgia Gwinnett College	Sublett Breeden, Veronica | Zimmermann, Kathryn	0	7:00 PM 9:00 PM
13	950	Taking a magnifying glass to instructional and assessment practices at two-year postsecondary institutions: A national survey	Zammit, Kendall	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Fun in the Sun with Light Absorbing and Emitting Molecules and Materials
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 7:00 PM
SESSION END TIME: Mon 10/27/2025 9:00 PM
SESSION HOST: Organizer: Daniel Harrison
Organizer: Caleb Brown

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	951	Approaches to a single-bridged carbazole-pyridine sensor molecule	Bera, Supriya	0	7:00 PM 9:00 PM
2	952	Effect of steric rigidity on the structural and photophysical properties of titanocenes	McCallum, Elizabeth	0	7:00 PM 9:00 PM
3	953	Investigating arylalkynltitanocenes: Effect of arylalkynyl ligand electron density on excited-state character	Walter, Samantha	0	7:00 PM 9:00 PM
4	954	Dual pH and fluorescence modulation with a monolithic photoacid	Choudhury, Rajib	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Inorganic Chemistry
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 7:00 PM
SESSION END TIME: Mon 10/27/2025 9:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	955	Synthesis, characterization, and biomedical applications of Zn (II) Schiff base complexes	Genamo, Meriama	0	7:00 PM 9:00 PM
2	956	Synthesis, structure, and characterization of lanthanide iron sulfates	Jones, Chloe	0	7:00 PM 9:00 PM
3	957	Mixed-valent and homovalent trinuclear triangular oxovanadium complexes supported by pyrazolate ligands	Gonzalez, Camila	0	7:00 PM 9:00 PM
4	958	Various non-evaporable hydrogen getters response to low hydrogen concentrations and possible contaminants for fusion applications	Smith, Houston	0	7:00 PM 9:00 PM
5	959	Triclinic polymorph of $(PPN)_2[Cu_2(m\text{-}Cl)_2Cl_4]$ and its thermally-controlled reversible transformation to the monoclinic one	Gonzalez, Abigayle	0	7:00 PM 9:00 PM
6	960	Energetics of “PtPOP” cooperative oligomerization via self-stacking or “metal-INORGANIC framework” formation	Davange, Neha Pramod	0	7:00 PM 9:00 PM
7	961	Overcoming aurophilic constraints to assemble a gold(I) dinuclear cluster from a gold(II) precursor featuring dissimilar N, N- and C, C-donor ligands	Melgarejo, Doris	0	7:00 PM 9:00 PM
8	962	Survey of the expanded trinuclear iron-oxo pyrazolato series: X-ray crystal structures, spectroscopy, and electrochemistry	Boedicker, John	0	7:00 PM 9:00 PM
9	963	Tetrameric Bis-L-Histidine–Bis-Salicylaldehyde Di-Copper(II) complex: A green route to chiral di-copper complexes with metalloenzyme-like properties	Chiarella, Gina	0	7:00 PM 9:00 PM
10	964	Rational design of a yne-ol ligand enables access to a double-tethered metallacyclobutadiene catalyst for cyclic polymer synthesis	Chakravorty, Vishal	0	7:00 PM 9:00 PM
11	965	Investigating solvent and anion effects on the (spectro-)electrochemical properties of tert-butyl substituted cobalt phthlocyanine	Muldowney, Breanna	0	7:00 PM 9:00 PM
12	966	Photocatalytic dye degradation via TiO2 hexaniobate nanopeapods	LeBan, Levon	0	7:00 PM 9:00 PM
13	967	Investigation of spin clock transitions in Ni(II) S=1 complexes	perez, rachel	0	7:00 PM 9:00 PM
14	968	Transition metal coordinates of a bulky weakly coordinating anion	Avento, Colin	0	7:00 PM 9:00 PM
15	969	Electrolyte effects in Prussian blue analog-based batteries	Ellis, Alexander	0	7:00 PM 9:00 PM
16	970	Investigation of the oxidation kinetics of Cu(I) bound to model peptides with hyperactive Ctr1-14 mutants	Post, Emily | Ruth, Kaylee | Pushie, Jake | Haas, Kathryn	0	7:00 PM 9:00 PM
17	971	Characterization of f-element isotopes using an ionic liquid resin	Simms, Megan	0	7:00 PM 9:00 PM
18	972	Investigation of trigonal bipyramidal iron(II) and octahedral vanadium(III) complexes as candidates for molecular quantum clock transition qubits	Wilkins, Branford	0	7:00 PM 9:00 PM
19	973	Ligand-to-ligand charge transfer LL’CT transitions in square-planar metal-bipyridyl complexes of heteroatom-substituted	Usman, Muhammad Ahsan	0	7:00 PM 9:00 PM

		maltol derivatives			
20	974	Photophysical characterization and ligand release of a photoactive bipyridyl ruthenium(II)–nicotinamide complex within polyhedral zinc metal organic frameworks	Sellers, Delaney	0	7:00 PM 9:00 PM
21	975	Photophysical studies of MOF encapsulated ruthenium polyimines for light activated drug delivery	Senn, Michaela	0	7:00 PM 9:00 PM
22	976	Carbene ring expansion and decarbonization mediated by magnesium	Mamta, Mamta	0	7:00 PM 9:00 PM
23	977	Schiff base transition metal complexes as symmetric redox flow battery electrolytes	McDearmon, William	0	7:00 PM 9:00 PM
24	978	Investigation of the structure of water in salt solutions with beta radiation	Hall, James	0	7:00 PM 9:00 PM
25	979	Spectroscopic characterization of equine skeletal muscle myoglobin mineralized in a zeolitic imidazolate framework	Wolfe, Brielle	0	7:00 PM 9:00 PM
26	980	Systematic design of Schiff-base ligands for transition metal complexes: Synthesis and characterization	Crockem, Christian	0	7:00 PM 9:00 PM
27	981	Developing synthetic routes to cycloquinquepyridine ligands	Gajula, Mounika	0	7:00 PM 9:00 PM
28	982	Investigation of aromatic isocyanides as ligands for all-ferrous iron-sulfur clusters	Tsung, Timothy	0	7:00 PM 9:00 PM
29	983	Coordination chemistry of BODDI ligands with aluminum: Structural and spectroscopic insights	Khatri, Bhawana	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Undergraduate Research at SERMACS/SWRM
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Mon 10/27/2025 7:00 PM
SESSION END TIME: Mon 10/27/2025 9:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	984	Atoms-in-molecules survey of the nature of bonding in homoleptic transition metal methyl molecules	Edwards, Jacob	0	7:00 PM 9:00 PM
2	985	Synthesis and characterization of silver/alkali-metal Dion-Jacobson double-layered perovskite solid solutions, $Ag_{1-x}A_xLaNb_2O_7$ (A = Na, K, Rb; $0 \le x \le 1.0$)	Kelch, Mya	0	7:00 PM 9:00 PM
3	986	Environmental friendly highly eficient disifectant in health care facilities: Iron-based ferrate molecule	Nadagouda, Megha	0	7:00 PM 9:00 PM
4	987	Chain length effects on acid-catalyzed silyl ether exchange dynamics in covalent adaptable networks	Touloukian, Harry	0	7:00 PM 9:00 PM
5	988	Synthesis and characterization of a series of para-substituted-4-phenyl-1H-pyrazoles	Pino, Nicolle | Benitez-Elcadi, Felipe | Robinson, Nina | Rodriguez, Jennifer | Syed, Abdul	0	7:00 PM 9:00 PM
6	989	Designing redox-responsive polymer nanoparticles by encapsulatingtherapeutic proteins	Duke, Brian	0	7:00 PM 9:00 PM
7	990	Mimicking the active site of nitric oxide reductase: A novel system for studying the reduction of nitric oxide	Chandler, Nicholas	0	7:00 PM 9:00 PM
8	991	Synthesizing aluminum oxide titanium aqueous solutions to create dielectric thin films	Cruz, Martha	0	7:00 PM 9:00 PM
9	992	Method development for the determination of carbohydrate ratios in honey using optical activity	Fernandez, Alison | Rodriguez-Santiago, Sarah	0	7:00 PM 9:00 PM
10	993	Synergistic nanocomplexes: Green synthesis of silver nanoparticles and their encapsulation in chitosan-alginate nanocomplex for wound healing and targeted drug release	Mitchell, Laia | Jain, Sapna	0	7:00 PM 9:00 PM
11	994	Chitosan/Alginate encapsulated ZnO nanoparticles: Synthesis, characterization, and diverse applications	Mcgill, Azorea | Jain, Sapna	0	7:00 PM 9:00 PM
12	995	Investigation of the impact of tea and sugar type on kombucha fermentation products	Cook, Morgan	0	7:00 PM 9:00 PM
13	996	Observations of rosette and broccoli-like formations on titanium microfibers	Urquhart, Cole	0	7:00 PM 9:00 PM
14	997	Preparation of phenylated ruthenium complexes supported by 4',5,5''-tri-tert-butyl-2,2':6',2''-terpyridine (tBu_3-terpy): Structure, reactivity and characterization	Teixeira Arantes, Ellen	0	7:00 PM 9:00 PM
15	998	Utilizing UV-Vis spectroscopy to detect and quantify ionizing radiation in water	Simmons, Maxwell	0	7:00 PM 9:00 PM
16	999	Iron-based metal-organic frameworks for the separation of lanthanides	Patterson`, Morgan	0	7:00 PM 9:00 PM
17	1000	Utilizing isoreticular metal-organic frameworks for lanthanide separations	Pike, Xander	0	7:00 PM 9:00 PM
18	1001	Employing MIL series of metal organic frameworks for the separation of lanthanides	Hodge, Seth	0	7:00 PM 9:00 PM
19	1002	Expanding the separation capabilities of ion mobility-mass spectrometry using novel derivatization methods	Fernandez, Sabrina	0	7:00 PM 9:00 PM
20	1003	Crystallographic and electrochemical investigation of europium complexes with curcumin and ascorbic acid	Connell, Coye	0	7:00 PM 9:00 PM

21	1004	In silico design of anti-inflammatory peptides to mitigate oxidative stress-induced neuroinflammation	Brunson, Kaden | Major, Dale	0	7:00 PM 9:00 PM
22	1005	Selective estrogen receptor modulators (SERMS): differentiating geometric isomers with ion mobility-mass spectrometry (IM-MS)	Ludwigsen, Kaitlyn	0	7:00 PM 9:00 PM
23	1006	Computational analysis of active site modifications in [NiFe] hydrogenase for enhanced biomimetic catalysts using density functional theory	Dodd, Jordyn | King, Amy	0	7:00 PM 9:00 PM
24	1007	Structure and function of surfactant decorated air/liquid interfaces in direct air capture of carbon dioxide	Decatur, Sydney	0	7:00 PM 9:00 PM
25	1008	[Ni-Fe] hydrogenase: A computational study of modifications around the Ni center and the effect on the active site and reactivity of the enzyme	Keshi, Promise	0	7:00 PM 9:00 PM
26	1009	Developing side chain engineering strategies to allow conjugated polymers processability in green solvent	Wold, Adam	0	7:00 PM 9:00 PM
27	1010	Chemical modulation of stress resilience: The effects of Fe^{2+} and Mn^{2+} on D. radiodurans	Chung-Samuels, Jada'Marie	0	7:00 PM 9:00 PM
28	1011	Proton-driven phosphoryl transfer in β-phosphoglucomutase	Camp, Grayson	0	7:00 PM 9:00 PM
29	1012	Computational analysis of the dissociation kinetics of the intrinsically disordered protein containing NTAIL-XD complex of the measles virus through the lens of collective variable selection	Lee, Ryan	0	7:00 PM 9:00 PM
30	1013	Novel synthesis of a cellulose based nano-resins (CNR)	Pham, Anna	0	7:00 PM 9:00 PM
31	1014	Structure-guided development of next-generation PP5 inhibitors	Orr, Lucy	0	7:00 PM 9:00 PM
32	1015	Detection of nitroaromatic explosives using fluorescent porphyrins entrapped in silica sol-gel matrix	Meere, Sophia	0	7:00 PM 9:00 PM
33	1016	Thermal destabilization of a synthesized mitoxantrone-DNA duplex	Jenkinson, Shelby	0	7:00 PM 9:00 PM
34	1017	Next generation lipid-like nanoparticles: Application of traceless solid-phase chemistry	Lippold, Carolyn	0	7:00 PM 9:00 PM
35	1018	Purification of the O-methyltransferase encoded by the *spd7* gene from *Pseudopithomyces chartarum* involved in the biosynthesis of sporidesmin	Grillo, Jasmin	0	7:00 PM 9:00 PM
36	1019	Assessing the activity of a novel poly(aspartic acid) hydrolase and its ability to cleave oligo(aspartic acid)	Song, Samuel	0	7:00 PM 9:00 PM
37	1020	Science behind the glow: Educating the public on skin care chemistry	Dassow, Bailey	0	7:00 PM 9:00 PM
38	1021	Analysis of geographical origin of honey through antioxidant potential	Clemens, Kathryn	0	7:00 PM 9:00 PM
39	1022	Exploring computational folding of the unstructured C-terminal domain topoisomerase IIβ by AlphaFold3	Falkenheim, Xavier	0	7:00 PM 9:00 PM
40	1023	Synthesis of macro molecules for DNA sequencing applications	Chirombe, Charles	0	7:00 PM 9:00 PM
41	1024	Rapid identification and quantitation of arecoline in betel nut extracts via HPLC-UV	Fisher, Chandler	0	7:00 PM 9:00 PM
42	1025	Electrochemical studies of cobalt and nickel deposition	Simmons, Maggie	0	7:00 PM 9:00 PM
43	1026	Investigating photo-ionic responses in the mixed ionic-electronic conductors $Pr_{0.05}Ce_{0.95}O_{2-x}$ and $SrTi_{0.85}Co_{0.15}O_{3-y}$	Liu, Leo	0	7:00 PM 9:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advances in Electrochemistry and Bioelectrochemistry
SESSION TYPE: Oral
SESSION LOCATION: Harbor B
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Olja Simoska
Organizer: Sanela Martic
Presider: Megan Jackson

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Welcome and Introduction		5	8:00 AM 8:05 AM
2	1027	Numeric analysis of the bioenergy production potential of agricultural wastes using a microbial fuel cell coupled with anaerobic digestion	CHAKRABORTY, SOURABH	20	8:05 AM 8:25 AM
3	1028	Observation of bioelectric potentials of microorganisms via microbial fuel cell	Bing, Darryl	20	8:25 AM 8:45 AM
4	1029	Disorder-driven conductivity: Mixed-anion engineering of Li_2HfCl_6 for advanced solid-state electrolytes	Dikella Gamaralalage, Thilina Nadeemali Dikella	20	8:45 AM 9:05 AM
5		Intermission		15	9:05 AM 9:20 AM
6	1030	Tuning nonaqueous electrochemical CO_2 reduction using the steric control of proton sources	Guo, Wenxiao	20	9:20 AM 9:40 AM
7	1031	How do cations promote CO_2 reduction at the electrochemical interface	Feng, Xiaofeng	20	9:40 AM 10:00 AM
8	1032	Structure evolution of Cu_2S into microneedles $Cu(OH)_2/Cu_XO$ as highly stable and active HER catalyst	Ramirez Ubillus, Manuel Alejandro	20	10:00 AM 10:20 AM
9		Intermission		20	10:20 AM 10:40 AM
10	1033	Simultaneous voltammetric measurements of serotonin and glucose dynamics at a single site in real-time	Turner, Kalynn	20	10:40 AM 11:00 AM
11	1034	Bioelectrochemistry of intrinsically disordered proteins	Martic, Sanela	20	11:00 AM 11:20 AM
12	1035	Enhancing sensitivity and selectivity in neurotransmitter sensing with Nafion coated double bore electrodes	Daninger, Ashley	20	11:20 AM 11:40 AM
13	1036	Co-detection of DA and glutamate on an enzyme-modified microbiosensor using fast scan cyclic voltammetry in rat striatum	Linder, Kayleigh	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advances in Microscale Bioanalysis
SESSION TYPE: Oral
SESSION LOCATION: Magnolia C
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Laura Casto
Organizer: Christopher Baker
Presider: Christopher Baker
Presider: Laura Casto

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introduction		5	8:00 AM 8:05 AM
2	1037	Modeling and design of pneumatic circuits for plug-and-play microfluidic flow control	Easley, Christopher	30	8:05 AM 8:35 AM
3	1038	Design of thermally-responsive nanocomposites for advancements in microfluidic surface-enhanced Raman spectroscopy applications	folks, casey	20	8:35 AM 8:55 AM
4	1039	Bubble perfusion brain slice culture with single-droplet stimulus delivery in a 3D printed microfluidic device	Gutierrez, Genoveve	20	8:55 AM 9:15 AM
5	1040	Fourier transformation-based detection for trace analysis of biosignatures in microfluidic systems	Alsharid, Nour	20	9:15 AM 9:35 AM
6	1041	Fluorescence lifetime assay for glucagon on a microfluidic device	Pazos, Nicholas	30	9:35 AM 10:05 AM
7		Break		5	10:05 AM 10:10 AM
8	1042	Paper-in-polymer-pond (PiPP) hybrid microfluidic microplates for Ultrasensitive colorimetric detection of multiple cancer biomarkers	Li, Xiujun	30	10:10 AM 10:40 AM
9	1043	Development of a multi-detector approach to Taylor dispersion analysis: High precision molecular sizing	Bourger, Hillary	20	10:40 AM 11:00 AM
10	1044	Characterization of smart plasmonic nanocomposites	Roth, Bennett	20	11:00 AM 11:20 AM
11	1045	Modulation of negative differential resistance through conical nanopipette configurations for ionic memristor applications	Balogun, Yusuff	20	11:20 AM 11:40 AM
12	1046	Segmented injection patterning for microfluidic fourier transform detection	Suchi, Most Jannatul Ferdous | Casto, Laura	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Bioinorganic Chemistry in the Southeast and Southwest Regions of ACS
SESSION TYPE: Oral
SESSION LOCATION: Nautilus B
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 11:35 AM
SESSION HOST: Organizer: Jonathan Caranto
Presider: Gayan Wijeratne
Presider: Shabnam Hematian

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		10	8:00 AM 8:10 AM
2	1047	Kinetic and spectroscopic study of tetrahydrodipicolinate *N*-succinyltransferase (DapD) from *Serratia marcescens* and its inactivation by Cu^{2+}	Johnson, Corey	20	8:10 AM 8:30 AM
3	1048	Molecular basis for peptide nitration by a heme enzyme in RiPP biosynthesis	Wang, Yifan	20	8:30 AM 8:50 AM
4	1049	Heme peroxo intermediates: A missing piece in comprehending heme mediated biological transformations	Wijeratne, Gayan	20	8:50 AM 9:10 AM
5	1050	X-ray spectroscopy methods to study selenoenzymes	Rush, Katherine	20	9:10 AM 9:30 AM
6	1051	Copper(II) complexes based-phenolate as potential chemotherapeutic agents in the fight against cancer	Massoud, Salah	20	9:30 AM 9:50 AM
7		Coffee Break		20	9:50 AM 10:10 AM
8	1052	Quantifying antioxidant activity of hydrophobic compounds using metal-mediated DNA damage	Brumaghim, Julia	20	10:10 AM 10:30 AM
9	1053	Design of new N-Salicylidene alanine transition metal Schiff-base complexes with Zn(II), Mn(II), Fe(II), and Fe(III): Synthesis, preliminary characterization, toxicity, and computational studies of the potential metal-ligand binding sites	Titah, James	20	10:30 AM 10:50 AM
10	1054	Drug delivery using layered zirconium phosphate nanomaterials	Colón, Jorge	20	10:50 AM 11:10 AM
11	1055	Cytotoxic activity of new silver complexes with N-heterocyclic thiones and selones	Rabinovich, Daniel	20	11:10 AM 11:30 AM
12		Closing Remarks		5	11:30 AM 11:35 AM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Chemistry Merck Breakfast
SESSION TYPE:	Networking Event
SESSION LOCATION:	Citrus A
SESSION START TIME:	Tue 10/28/2025 8:00 AM
SESSION END TIME:	Tue 10/28/2025 10:00 AM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Colloids, Surfactants, Interfaces and Nanomaterials
SESSION TYPE: Oral
SESSION LOCATION: Harbor A
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 11:20 AM
SESSION HOST: Organizer: Ajay Mallia
Presider: Ajay Mallia

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	8:00 AM 8:05 AM
2	1056	Solvent-driven non-catalytic formation of polyethylene-based quantum dots with tunable optical properties	Naumann, Brandon	20	8:05 AM 8:25 AM
3	1057	Engineering resilin-like peptides conjugated with gold-binding domain for nanomaterial synthesis and characterization	Jose, Josena	20	8:25 AM 8:45 AM
4	1058	Acidic zeolite-driven porosity engineering in organic bases via surface sacrifice	Yang, Zhenzhen	20	8:45 AM 9:05 AM
5	1059	RAFT aqueous emulsion polymerization observed by liquid cell transmission electron microscopy	Lott, Megan	20	9:05 AM 9:25 AM
6	1060	Novel synthesis of rare-earth alloyed/ doped La_2S_3 nanocrystals	Gamamada Liyanage, Malki Omesha Perera	20	9:25 AM 9:45 AM
7		Break		15	9:45 AM 10:00 AM
8	1061	Synthesis and characterization of silver nanoparticle embedded MOF-808 and assessment of broad-spectrum antibacterial activity	Carrier, Jake	20	10:00 AM 10:20 AM
9	1062	Surfactant-polymer complexes for stabilizing blast furnace slag-based drilling fluid	Jian, Guoqing	20	10:20 AM 10:40 AM
10	1063	Photolytic-fuel driven dissipative self assembly of hydrogel networks	Conrad, Diana	20	10:40 AM 11:00 AM
11	1064	Probing evaporation-induced crystal emergence in reactive nanofluids *via in situ* synchrotron X-ray diffraction	Wasik, Patryk	20	11:00 AM 11:20 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Environmental Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Nautilus A
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Michael Brown

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1065	Sustainable recovery of phytic acid from wheat bran via aqueous extraction	Fronchetti Guidugli, Laura	20	8:00 AM 8:20 AM
2	1066	Synthesis of alginate-chitosan films with antimicrobial agents for food package applications	Sanchez-Rivera, Diana	20	8:20 AM 8:40 AM
3	1067	Cytotoxicity of freebase nicotine and its analogs using cellular and statistical methods	Griffin, Kiera	20	8:40 AM 9:00 AM
4	1068	Temperature-swing solvent extraction of fracking produced water: Efficiency and viability	Den, Walter	20	9:00 AM 9:20 AM
5	1069	Sustainable methods for upcycling plastic waste into quantum dot-based polymers	Naumann, Brandon	20	9:20 AM 9:40 AM
6	1070	Substitution of natural gypsum by raw phosphogypsum in CPJ 45 cement: Mechanical and environmental assessment	ADEL, Maha	20	9:40 AM 10:00 AM
7		Break		20	10:00 AM 10:20 AM
8	1071	Tracking the reaction networks of acetaldehyde oxide and glyoxal oxide Criegee intermediates in the ozone-assisted oxidation of crotonaldehyde	DeCecco, Alec	20	10:20 AM 10:40 AM
9	1072	Portable mass spectrometry for VOC monitoring	Gilliland, Mac	20	10:40 AM 11:00 AM
10	1073	Development of fluorescence probe spectroscopy to study the phase state, viscosity, and pH of aerosols	Gibbons, Angel	20	11:00 AM 11:20 AM
11	1074	Analysis of the ashes of the peels of bananas grown in Burundi, Africa	Miburo, Barry	20	11:20 AM 11:40 AM
12	1075	In-depth literature review focused on PFAS (per- and poly-fluoroalkyl substances) chemicals and PCB’s (polychlorinated biphenyls)	Begum, Sana	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Inorganic Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Pelican Room
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 11:20 AM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Timothy Brewster

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1076	A machine learning approach to co-crystal synthesis	Garcia, Lukas	20	8:00 AM 8:20 AM
2	1077	MXene/graphitic carbon nitride-supported metal selenide for flexible supercapacitor	Bastakoti, Bishnu	20	8:20 AM 8:40 AM
3	1078	Beyond classical directing groups: A transient strategy for C-H functionalization with traditional protecting groups	Lobos, Arnoldo	20	8:40 AM 9:00 AM
4	1079	Lewis acid effects in axially-substituted transition metal phthalocyanines	Tuggle, Kelsie	20	9:00 AM 9:20 AM
5	1081	A comparative study of the structure, optical, dielectric, and alternating current ionic conductivity of A2B3B'O8 oxides synthesized by solid-state reaction	Doughri, Doha	20	9:20 AM 9:40 AM
6		Break		0	9:40 AM 9:40 AM
7	1082	Hydroboration of carbonyl compounds with a cobalt(II) complex featuring a non-trigonal phosphorus center	Weerasuriya, Pamodya	20	9:40 AM 10:00 AM
8	1083	Synthesis and reactivity study of carbene-metaphosphate adducts	Zhai, Feng	20	10:00 AM 10:20 AM
9	1084	Triangular, trinuclear oxo-pyrazolato transition metal complexes	Raptis, Raphael	20	10:20 AM 10:40 AM
10	1085	*d*-orbital participation in alkaline earth complexes with NH_3 and PH_3	Alvarez, Esau	20	10:40 AM 11:00 AM
11	1086	Phospho-vanadate glasses with dual ionic-electronic conduction as potential cathode materials	LAHNINE, Fatima Ezzahra	20	11:00 AM 11:20 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Innovations in Inorganic Materials from Nanocrystals to Bulk Crystal Growth
SESSION TYPE: Oral
SESSION LOCATION: Flamingo Room
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Vladislav Klepov
Organizer: Tina Salguero
Presider: Vladislav Klepov
Presider: Tina Salguero

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1087	Evolution of magnetic ordering in intercalated transition metal dichalcogenides, $V_{1.2-x}Cr_xTe_2$	Adams, Milo	15	8:00 AM 8:15 AM
2	1088	Eu3Zn2As4 - a new Zintl phase exhibiting complex transport properties and magnetic anisotropy	Pokhvata, Olha	15	8:15 AM 8:30 AM
3	1089	Placing Eu^{3+} in a chiral polar lattice for quantum memory candidates	Chinaegbomkpa, Uchenna	15	8:30 AM 8:45 AM
4	1090	Structures, magnetic behavior, and thermoelectric properties of silicide Zintl phases in the $(Eu/Yb/Mg)_2Si$ system	Araoyinbo, Olufemi	15	8:45 AM 9:00 AM
5		Intermission		10	9:00 AM 9:10 AM
6	1092	Coulomb energy density of bonds and superconductivity	Benjamin, Shermane	20	9:10 AM 9:30 AM
7	1093	Structure-property relationships of metastable semiconductors at the synthetic frontiers	Maggard, Paul	20	9:30 AM 9:50 AM
8	1094	Does anion mixing influence the structure and optical properties of materials?	Macaluso, Robin	20	9:50 AM 10:10 AM
9	1095	Crystal growth controlled by melt/solution structure	Martin, James	20	10:10 AM 10:30 AM
10		Intermission		10	10:30 AM 10:40 AM
11	1096	Unusual magnetic and transport properties in the novel Eu-bearing Zintl phases	Baranets, Sviatoslav	20	10:40 AM 11:00 AM
12	1097	Structural and magnetism insights into a dy-containing i-MAX $(Mo_{2/3}Dy_{1/3})_2AlC$	Rai, Binod	20	11:00 AM 11:20 AM
13	1098	Unraveling crystal growth dynamics through neutron scattering	Frontzek, Matthias	20	11:20 AM 11:40 AM
14	1099	Anthracene as a reactant for the metal flux growth of new intermetallic carbides and hydrides	Latturner, Susan	20	11:40 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: PMSE/POLY Symposium: Separation and Long-term Sustainability
SESSION TYPE: Oral
SESSION LOCATION: Magnolia A
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Reza Foudazi
Presider: Reza Foudazi

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1100	Polymer membranes for large-scale energy conversion and storage	Hickner, Michael	25	8:00 AM 8:25 AM
2	1101	Inter-crosslinked membranes for efficient organic solvent separations exhibiting unprecedented stability	Galizia, Michele	25	8:25 AM 8:50 AM
3	1102	Flexible fluorine-free alternatives to Nafion for next generation fuel cell membranes	Kennemur, Justin	25	8:50 AM 9:15 AM
4	1103	Cyclic polyolefins: Insights and applications	Pedro, Gina	20	9:15 AM 9:35 AM
5	1104	High molecular weight linear Poly-dicyclopentadiene (LPDCPD) and its copolymers	Schanz, Hans	20	9:35 AM 9:55 AM
6	1105	Polyolefin innovations for industrial decarbonization	Qiang, Zhe	25	9:55 AM 10:20 AM
7		Intermission: Coffee Break		15	10:20 AM 10:35 AM
8	1106	Thiocracking as a mechanism for the chemical recycling of thermosetting plastics	Shivers, Carson	20	10:35 AM 10:55 AM
9	1107	Designing sulfur-rich composites from brown grease: Esterification as a tool for enhancing homogeneity and upcycled mass economy	Guinati, Barbara	20	10:55 AM 11:15 AM
10	1108	Dynamic thiol-ene polymers based on bifunctional silyl ether exchanges	El-Zaatari, Bassil	20	11:15 AM 11:35 AM
11	1109	Modeling powder consolidation during polymer selective laser sintering	Neidhart, Suzanne	20	11:35 AM 11:55 AM
12		Intermission: Poster Awards		5	11:55 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Ultrafast and Nonlinear Spectroscopy
SESSION TYPE: Oral
SESSION LOCATION: Nautilus C
SESSION START TIME: Tue 10/28/2025 8:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Paul Ohno
Organizer: Bryan Kudisch
Organizer: Sean Roberts
Presider: Paul Ohno
Presider: Bryan Kudisch
Presider: Sean Roberts

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1110	Spectroscopic approaches for characterizing lipid-protein interactions	Smith, Adam	30	8:00 AM 8:30 AM
2	1111	Measuring depth-dependent rigidity of a lipid bilayer interior and interfacial region with FTIR and 2DIR spectroscopies	Rubtsov, Igor	30	8:30 AM 9:00 AM
3		Break		15	9:00 AM 9:15 AM
4	1112	New advances in 2D spectroscopies and microscopies for studying exciton dynamics in thin films and devices	Zanni, Martin	30	9:15 AM 9:45 AM
5	1113	Quantifying protein secondary structure with transition dipole strength analysis	Cao, Amanda	30	9:45 AM 10:15 AM
6		Break		15	10:15 AM 10:30 AM
7	1114	Using triple bonds and ultrafast IR spectroscopy to study the structure and dynamics of molecularly heterogeneous liquids	Kuroda, Daniel	30	10:30 AM 11:00 AM
8	1115	Probing energy transfer through low-energy states in photosynthetic cyanobacteria and diatoms	Massey, Sara	30	11:00 AM 11:30 AM
9	1116	Ultrafast X-ray imaging of coherently controlled molecular dynamics in real space and time	Hopper, Tom	30	11:30 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemical Biology Innovations for Therapeutics
SESSION TYPE: Oral
SESSION LOCATION: Cypress B
SESSION START TIME: Tue 10/28/2025 8:15 AM
SESSION END TIME: Tue 10/28/2025 11:25 AM
SESSION HOST: Organizer: Yousong Ding
Organizer: Y. George Zheng
Presider: Yousong Ding
Presider: Y. George Zheng

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	8:15 AM 8:20 AM
2	1117	Discovery of positive allosteric modulators of Guanylyl cyclase B for targeting cardiac fibrosis and cardiovascular disease	Peddibhotla, Satyamaheshwar	20	8:20 AM 8:40 AM
3	1118	Fragment-based drug design to optimize an antibacterial prodrug	Angle, Sarah	15	8:40 AM 8:55 AM
4	1119	Structural and functional characterization of nsP2 protease inhibitors targeting alphaviruses	Ojobor, J. Chinenye	15	8:55 AM 9:10 AM
5	1120	Novel caffeic acid derivatives inhibit in vitro osteoclastogenesis of murine macrophage cell line RAW 264.7	Clark, Leonard	15	9:10 AM 9:25 AM
6	1121	Targeting 2′, 3′-cyclic nucleotide signaling for the antimicrobial and anticancer drug development	Chauhan, Shikha	20	9:25 AM 9:45 AM
7		Break		20	9:45 AM 10:05 AM
8	1122	Unlocking new anthelmintic targets: Characterization of a novel serotonin-responsive GPCR from *Schistosoma mansoni*	Sprague, Daniel	20	10:05 AM 10:25 AM
9	1124	Preclinical investigations of non-structural protein 2 (nsP2) protease inhibitors as therapeutics for alphavirus infections	Ogungbe, Ifedayo | Adeyinka, Olawale	20	10:25 AM 10:45 AM
10	1125	DMS-MAPseq with error analysis	Osei-Frempong, Emmanuel	15	10:45 AM 11:00 AM
11	1126	mAb production using Ambr® 250 high-throughput bioreactors: DoE guided optimization of critical process parameters and mapping	Bordoloi, Achinta	20	11:00 AM 11:20 AM
12		Closing Remarks		5	11:20 AM 11:25 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Plasmonic Nanoparticles and Applications--Synthesis and Characterizations
SESSION TYPE: Oral
SESSION LOCATION: Cypress A
SESSION START TIME: Tue 10/28/2025 8:15 AM
SESSION END TIME: Tue 10/28/2025 11:45 AM
SESSION HOST: Organizer: Yongmei Wang
Organizer: Shengli Zou
Presider: Geoffrey Strouse
Presider: Jing Hao

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1127	Precise control over the spatial arrangement of copper selenide on au nanobipyramids by site-selective growth for dual plasmonic nano-architectures	Jing, Hao	25	8:15 AM 8:40 AM
2	1128	Nano-plasmonics in layered van der Waals heterostructures	Ni, Guangxin	25	8:40 AM 9:05 AM
3	1129	Patterning wet-chemical synthesized nanoparticles for plasmonic metamaterials	Chiang, Naihao	25	9:05 AM 9:30 AM
4	1130	Synthesis and application of one-dimensional colloidal plasmonic nanocomposites	Chen, Gang	25	9:30 AM 9:55 AM
5		coffee break		20	9:55 AM 10:15 AM
6	1131	Influence of wall thickness on thermal stability of silver-gold alloyed nanocages	Shao, Shikuan	25	10:15 AM 10:40 AM
7	1132	n-type Cd_2SnO_4 Nanocrystals: an antisite driven plasmonic semiconductor nanocrystal	Strouse, Geoffrey	25	10:40 AM 11:05 AM
8	1133	Impact of size on plasmonic behavior in Cd_2SnO_4 nanospinels	Bennett, Sarah	20	11:05 AM 11:25 AM
9	1134	Defect modulation in Cd2SnO4 nanomaterials: Exploring thermal and chemical routes to plasmonic control	Amane, Misa	20	11:25 AM 11:45 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Structures and Properties of Photoactive Materials
SESSION TYPE: Oral
SESSION LOCATION: Harbor C
SESSION START TIME: Tue 10/28/2025 8:30 AM
SESSION END TIME: Tue 10/28/2025 11:35 AM
SESSION HOST: Organizer: Dongmao Zhang
Organizer: Tom Hopper
Organizer: Shengli Zou
Presider: Penghao Li
Presider: Cedric Schaack

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1135	Semiconductor artificial atoms: Programming with atomic precision	Zeng, Chenjie	25	8:30 AM 8:55 AM
2	1136	Geometrically flexible 3D nanocarbon	Li, Penghao	25	8:55 AM 9:20 AM
3	1137	Copper tetrathiovanadate (Cu_3VS_4) based absorbers: A solution-processed route to next-gen solar devices	Biswal, Linisha	15	9:20 AM 9:35 AM
4	1138	Readily accessible, versatile, and adaptive biaxially chiral chromophores	Schaack, Cedric	25	9:35 AM 10:00 AM
5		Coffee break		15	10:00 AM 10:15 AM
6	1139	Enhancing the capability of ISARS spectroscopy for quantifying UV-Vis absorption and scattering extinction in solutions	McEachin, Joshua	15	10:15 AM 10:30 AM
7	1140	In-situ optical monitoring of molecular self-assembly using a multitrack linearly polarized spectrometer: TSPP as a model system	Yan, Rongjing	15	10:30 AM 10:45 AM
8	1141	Intermolecular interactions in hybrid halide compounds and their influence on the optical properties	Klepov, Vladislav	25	10:45 AM 11:10 AM
9	1142	Advances and challenges in characterization of photoactive materials: From absorption and scattering to emission	Zhang, Dongmao	25	11:10 AM 11:35 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advancing Extraction and Separation Techniques for Food and Environmental Analysis
SESSION TYPE: Oral
SESSION LOCATION: Cypress C
SESSION START TIME: Tue 10/28/2025 9:00 AM
SESSION END TIME: Tue 10/28/2025 11:40 AM
SESSION HOST: Organizer: Ngee Chong
Presider: Yong Foo Wong

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	9:00 AM 9:05 AM
2	1143	Levels of per- and polyfluoroalkyl substances (PFAS) in the Elk River watershed, Tennessee	Hamilton, Markis'	20	9:05 AM 9:25 AM
3	1144	Co-solvothermal liquefaction of food waste for sustainable biocrude oil production	Bhowmick, Rakesh	20	9:25 AM 9:45 AM
4	1145	Green chemistry in action: Solvent screening and kinetic modeling for sustainable soybean oil extraction	Dharmarajan, Shanmugapriya	20	9:45 AM 10:05 AM
5		Break		15	10:05 AM 10:20 AM
6	1146	Dispersive liquid-liquid microextraction coupled with high-resolution separation techniques for analyzing fatty acids and phenolic compounds in complex food matrices	Wong, Yong Foo	20	10:20 AM 10:40 AM
7	1147	Automated sample preparation and analysis of cannabis samples	Neihardt, Scott	20	10:40 AM 11:00 AM
8	1148	Highly efficient extraction protocol for metabolic profile analysis of avocado mesocarp samples using LC-MS	Huo, Qun	20	11:00 AM 11:20 AM
9	1149	Enhancement of the microwave-assisted flavonoid and phenolic extraction method from *Datura metel* (L.) leaves using Taguchi L9 orthogonal design	Samanta, Rojalini	20	11:20 AM 11:40 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research General Program
SESSION TYPE: Oral
SESSION LOCATION: Magnolia B
SESSION START TIME: Tue 10/28/2025 9:00 AM
SESSION END TIME: Tue 10/28/2025 12:05 PM
SESSION HOST: Organizer: Tamra Legron-Rodriguez
Organizer: Christopher Randles
Presider: Tamra Legron-Rodriguez
Presider: Christopher Randles

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Intro		5	9:00 AM 9:05 AM
2	1150	Elevating faculty development: The power of live student focus groups	Romero-Reyes, Misael	20	9:05 AM 9:25 AM
3	1151	International perspectives on student partnership: transferable principles for STEM belonging from UK higher education	Ritchie, Tom	20	9:25 AM 9:45 AM
4	1152	Adoption of a variety of modalities for effectively teaching inorganic chemistry lab	Sigdel Regmi, Bhawani	20	9:45 AM 10:05 AM
5	1153	Assessing student understanding of experimental errors using a simple and sustainable water measurement experiment	Dennis, Dana-Marie	20	10:05 AM 10:25 AM
6	1154	Green chemistry in practise: Zero hazardous waste laboratory exercise for undergraduate laboratories developed in cooperation with undergraduates	Brosky, Rebecca	20	10:25 AM 10:45 AM
7	1155	Reductive amination through a greener lens: A DCM-free undergraduate lab experiment	Dannatt, Jonathan	20	10:45 AM 11:05 AM
8	1156	Redesigning the biochemistry lab into a full-semester experience: Engagement, alignment, lessons learned, and next steps	Shannon, Matthew	20	11:05 AM 11:25 AM
9	1157	Inorganic lab sequence development: Mimicking the creation, characterization, and structural determination of new metal complexes in a research environment	Ohrenberg, Carl	20	11:25 AM 11:45 AM
10	1158	A laboratory module for differentiating absorption, scattering, and fluorescence in UV-Vis spectroscopy	Jurgenson, Christopher	20	11:45 AM 12:05 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Workshop: Career Pathways in Pharmacy
SESSION TYPE:	Workshop
SESSION LOCATION:	Royal 1
SESSION START TIME:	Tue 10/28/2025 9:00 AM
SESSION END TIME:	Tue 10/28/2025 12:00 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Exposition
SESSION TYPE:	Networking Event
SESSION LOCATION:	Majestic Ballroom
SESSION START TIME:	Tue 10/28/2025 10:00 AM
SESSION END TIME:	Tue 10/28/2025 5:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Functional Polymers: Synthetic Methodologies and Applications
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Tue 10/28/2025 10:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Nicolay Tsarevsky
Organizer: Mihaela Stefan

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1159	Preparation and cement bonding performance of hydrogel-resin	Contreras, Elizabeth	0	10:00 AM 12:00 PM
2	1160	Cyclic olefin copolymer based anion exchange membranes for fuel cells and water electrolysis	McKnight, Adam	0	10:00 AM 12:00 PM
3	1161	Low-catalyst-concentration atom transfer radical copolymerization of lipoates with methacrylates	Garcia, Leonel | Kim, Haley	0	10:00 AM 12:00 PM
4	1162	3D UV printing of polymeric ionic liquids with gold nanoparticle	Ferrufino Amador, Susana	0	10:00 AM 12:00 PM
5	1163	Adsorption and kinetic analysis of zeolite graft polymers	Coleman, James | Perla Benitez, Rolando	0	10:00 AM 12:00 PM
6	1164	Kinetic and adsorption performance analysis of zeolite nanoresins (ZNRs)	Perla, Rolando	0	10:00 AM 12:00 PM
7	1165	Detection of heavy metals through the use of Tetra hydroxyphenyl porphyrin-doped silica sol-gels	Collins, Morgan	0	10:00 AM 12:00 PM
8	1166	Porous organometallic polymers via iClick	Campbell, Nicholas	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Biochemistry
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Tue 10/28/2025 10:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1168	Novel generation of trimethoxychalcone-based pyrazolo[3,4-d]pyrimidines: Design, synthesis and biological evaluation as potent EGFR and VEGFR-2 dual inhibitors	Mahnashi, Mater	0	10:00 AM 12:00 PM
2	1169	An outer-sphere threonine residue is critical for NO-dependent tryptophan nitration by the cytochrome P450, TxtE	Baez, Krystal	0	10:00 AM 12:00 PM
3	1170	Acetaminophen and reactive oxygen species: Exploring the antioxidant properties of alkylated nicotinoyl compounds	English, Brandon	0	10:00 AM 12:00 PM
4	1171	Conjugation of NAD-like Species with glyceraldehyde 3-phosphate dehydrogenase	English, Brandon	0	10:00 AM 12:00 PM
5	1172	Design and synthesis of Diarylpiperidinone conjugates as potential therapies for skin cancer	Ferguson, FaithAnn	0	10:00 AM 12:00 PM
6	1173	Development of a benzothiazole-sulfone cleavable linker for peptides	Ruighaver, Zachary	0	10:00 AM 12:00 PM
7	1174	Dynamic and thermodynamic characterization of Ca^{2+} recognition by EF hands in NCS proteins	Reyes, Michael	0	10:00 AM 12:00 PM
8	1175	Role of nuclear localization in the transformative properties of the Merkel cell polyomavirus small tumor antigen	Hufstetler, Raven	0	10:00 AM 12:00 PM
9	1176	Peroxisome proliferated-activated receptor (PPAR) delta agonist as promising treatment for non-alcoholic fatty liver disease	Luarasi, Xhesika	0	10:00 AM 12:00 PM
10	1177	Probing the stability of water coordination to the ferric heme of NnlA—a nitramine-degrading enzyme—by cyanide and nitric oxide binding studies	Oliveira, Gabriel	0	10:00 AM 12:00 PM
11	1178	Characterization and bioactivity of akermanite ceramics derived from Moroccan dolomite and perlite	EL MAAKOUL, YASSINE | Harrati, ACHRAF | ARKAME, YOUSSEF | SADIK, CHAOUKI	0	10:00 AM 12:00 PM
12	1179	Chemical properties and cellular access: Psychedelics as novel neuroplastic agents via intracellular 5HT2A receptor activation	Bogan, Maria	0	10:00 AM 12:00 PM
13	1180	Senescence, an index to monitor cancer therapy response	Anvar, Seyedehalaleh	0	10:00 AM 12:00 PM
14	1181	Selective oxidation of tryptophan residues using sodium periodate	Moore, Amanda	0	10:00 AM 12:00 PM
15	1182	Characterization of immobilized LDH enzyme	Oxendine, Christian	0	10:00 AM 12:00 PM
16	1183	Mechanisms of transport and Biochemical conversion of 4-pyridone-3-carboxamide-riboside: Insights into a noncanonical nucleoside's Metabolism	Cortez, Jonathan	0	10:00 AM 12:00 PM
17	1184	A conformational, ligand-controlled switch alters SCP2 interactions with PEX-related localization machinery	Signorelli, Rachel	0	10:00 AM 12:00 PM
18	1185	Modeling of the potential anti-migraine activity of bioactive molecules using molecular orbital computations and artificial neural networks	Shaver, Micah	0	10:00 AM 12:00 PM

19	1186	Structure-based virtual screening of nigella sativa compounds as potential anti-lung cancer agents targeting PI3Kα	Baeissa, Hanadi	0	10:00 AM 12:00 PM
20	1187	Expression analysis of integrin and laminin genes across healthy and tumour tissues using GTEx and TCGA datasets	Urvashi, .	0	10:00 AM 12:00 PM
21	1188	Optimization of protein purification and sortase-A mediated conjugation of nanobodies and invertase	De SIlva, Sayumi	0	10:00 AM 12:00 PM
22	1189	Boosting the efficacy of salicylic acid using ethosomal delivery systems to target acne	Artime, Lucy	0	10:00 AM 12:00 PM
23	1190	Utilizing a non-native enzyme as a redox mediator in *Shewanella oneidensis* MR-1 biocatalysis	Holwerda, Alexis	0	10:00 AM 12:00 PM
24	1191	Exploring oxidized NAD+ analogues: Impact on metabolism, cell redox, and inflammation	Deason, Jonathan	0	10:00 AM 12:00 PM
25	1192	Synthesis and metabolic analysis of quorum sensing signals in Chlamydomonas reinhardtii	Bach, Adam	0	10:00 AM 12:00 PM
26	1193	Itaconate anhydrate inhibits the RNA-dependent RNA-polymerase (RdRp) enzymatic activity of SARS-CoV-2	Taval, Divit	0	10:00 AM 12:00 PM
27	1194	Hybrid α/sulfonyl-γ-AA peptides inhibitors towards melanoma-differentiated associated gene 9/synthenin as potential anti-cancer therapeutics	Fontaine, Jarais	0	10:00 AM 12:00 PM
28	1195	Exploring β-bromo ketone–containing small molecules as electrophilic probes for the MDM2 RING domain	Lian, Xiaoying	0	10:00 AM 12:00 PM
29	1196	Design and synthesis of MDM2-based PROTACs for the targeted degradation of CDK4	Yu, Huaxuan	0	10:00 AM 12:00 PM
30	1197	Mimosine inhibits neuropeptide amidation in vitro	Holets, Tyler	0	10:00 AM 12:00 PM
31	1198	Design and development of sulfonyl-γ-Aapeptide-based Bac8c analogs for enhanced stability and antimicrobial activity	MATHURI, RITU VRIJENDER	0	10:00 AM 12:00 PM
32	1199	Greenhouse-based production of fungal-derived medicines in plants	Jayasundara, Sameera	0	10:00 AM 12:00 PM
33	1200	Develoment of bioconjugations to afford multivalent bioconjugates using non-canonical amino acids	Young, Douglas	0	10:00 AM 12:00 PM
34	1201	Novel isatin conjugates for pain and inflammation management: A pharmacological and computational study	Khadanga, Anshuman	0	10:00 AM 12:00 PM
35	1202	Effect of peptide –polyphenol interactions on allergenic potential of peanut protein hydrolysate	Yu, Jianmei	0	10:00 AM 12:00 PM
36	1203	Nutrient composition and physicochemical properties of shortbread cookies fortified with hydrolyzed peanut flour	Yu, Jianmei	0	10:00 AM 12:00 PM
37	1205	High throughput dynamics of adenosine deaminase acting on RNA (ADAR) Editing in diverse cellular environments	Ruemmele, Laura	0	10:00 AM 12:00 PM
38	1206	Analysis of the properties of the Alzheimer's peptide (Amyloid-Beta-42) and other bio-engineered mutations	Jaiswal, Saanya	0	10:00 AM 12:00 PM
39	1207	Ursolic acid-derived hybrids: A rational approach to cancer therapeutics	Natalini, Annabella	0	10:00 AM 12:00 PM
40	1208	Characterization studies on rationally designed homeodomain against natural variants	Sistos Barron, Oscar	0	10:00 AM 12:00 PM
41	1209	Advancing breast cancer therapy through Diarylpiperidinone-derived hybrid molecules: Design, synthesis, and biological evaluation	Dinkins, Holden	0	10:00 AM 12:00 PM
42	1210	Biodetoxification of Ochratoxin A contaminated grape pomace by fermentation using lactic acid bacteria	Yu, Jianmei	0	10:00 AM 12:00 PM

43	1211	Utilizing directed evolution to create adaptor specific binding domains within the CD28 cytoplasmic tail	Sharp, Josephine	0	10:00 AM 12:00 PM
44	1212	Spectroscopic studies of oxygen's role in modulating protonophore impact on small molecule transport across bacterial membranes	Campbell, Emily | Calhoun, Tessa	0	10:00 AM 12:00 PM
45	1213	Investigating the role of Sip4p in alternative carbon metabolism in *Candida glabrata*	Galloway, Ryan	0	10:00 AM 12:00 PM
46	1214	Merkel cell polyomavirus small T protein localizes to the nucleus via Transportin 1 binding	Catha, Jake	0	10:00 AM 12:00 PM
47	1215	Mechanism of action of OXi8007 in 786-O human renal cancer cells and mouse xenograft model	Rathnayake, Wathsala	0	10:00 AM 12:00 PM
48	1216	Elucidating the biosynthesis of *N*-nitroglycine from oxidation of Hydrazinoacetic acid	Martinez Rodriguez, Brenda	0	10:00 AM 12:00 PM
49	1217	Identifying target proteins in *Drosophila melanogaster* via binding-based proteomic profiling (BBPP) for palmitoyl amide characterization studies	Gray, Lauren	0	10:00 AM 12:00 PM
50	1219	Design and synthesis of shortwave infrared (SWIR) probes for bioimaging	Ankomah, Emmanuel	0	10:00 AM 12:00 PM
51	1220	Development of novel antimicrobial drugs targeting orphan protein tyrosine phosphatase in Streptococcus pyogenes	Ouedraogo, Pangbewindin	0	10:00 AM 12:00 PM
52	1221	Viscosity-sensitive Cy3 fluorophores for cell membrane labeling	KODISANA, MOHNA	0	10:00 AM 12:00 PM
53	1222	Computational modeling of bispecific T-cell engagers (BiTE) targeting EGFRvIII in glioblastoma multiforme	Sharma, Vyom	0	10:00 AM 12:00 PM
54	1223	Unraveling nonradiative decay in DsRed via molecular dynamics, QM/MM, and machine learning	Subasinghe, Janya	0	10:00 AM 12:00 PM
55	1224	Oxygen attachment dissociation for the structural characterization of lipids involved in pancreatic cancer	Carlton, Doug	0	10:00 AM 12:00 PM
56	1225	Investigation of putative poly(aspartic acid) hydrolase homologs from PahZ2KT-1	Nguyen, Catherine	0	10:00 AM 12:00 PM
57	1226	Thiazolothiazole membrane dyes for photodynamic inhibition of intracellular bacteria and biofilms	Danai, Leyla	0	10:00 AM 12:00 PM
58	1227	Functional comparison of full-length palladin to isolated actin binding domain	Albraiki, Sharifah	0	10:00 AM 12:00 PM
59	1228	Computer-aided design of neurological pain medicine candidates	Enriquez, Jose | Raya, Ivette	0	10:00 AM 12:00 PM
60	1229	Adenosine deaminase: Simplified enzyme kinetics and inhibition	Ransom, Kyndall	0	10:00 AM 12:00 PM
61	1230	Conserved arginine mutant residue disrupts NnlA activity	Klautky, Hannah	0	10:00 AM 12:00 PM
62	1231	Stabilization of alcohol dehydrogenase by tardigrade-specific cytosolic abundant heat-soluble protein A (77580)	Sinha, Ishaan	0	10:00 AM 12:00 PM
63	1232	Exploring alternative dyes for enhanced sensitivity and specificity in the Bradford protein assay	Mckenzie, Brook	0	10:00 AM 12:00 PM
64	1233	New benzofuran–pyrazole-based compounds as promising antimicrobial agents: Design, synthesis, DNA gyrase B inhibition, and in silico studies	Abdelwahed, Sameh	0	10:00 AM 12:00 PM
65	1235	Cyclopropanol: A caged dual-functional warhead for selective electrochemical bioconjugation	Hu, Shan	0	10:00 AM 12:00 PM
66	1236	Stabilization of alcohol dehydrogenase by the tardigrade-specific cytosolic-abundant heat soluble protein S	Vasan, Sameeya	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: REACh: Rare Earths and Actinide Chemistry Symposium
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Tue 10/28/2025 10:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: Katherine Johnson
Organizer: Anne Gorden

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1237	Variation of tripodal CMPO-based ligand structure and liquid-liquid extraction protocol parameters for enhanced f-element separations	Matter, Thea	0	10:00 AM 12:00 PM
2	1238	Hydrophobic deep eutectic solvent-based extraction and modeling of light and heavy REEs from water	Fronchetti Guidugli, Laura	0	10:00 AM 12:00 PM
3	1239	Selective binding and crystallization of Lanmodulin variants with rare-earth metals: A protein-based approach for separation	SURIAL, SAMRIDHI	0	10:00 AM 12:00 PM
4	1240	Structural and spectroscopic characterization of porphyrinoid ligands as Ln(III) complexes	Guragain, Biswash	0	10:00 AM 12:00 PM
5	1241	Redox-active metalloligands for cerium based photocatalysts	Arya, Lagan	0	10:00 AM 12:00 PM
6	1242	Synthesis, characterization, and probing reactivity of surface organometallic chemistry (SOMC) supported group 3 materials	Stant, Alexander	0	10:00 AM 12:00 PM
7	1243	Tuning the UV-Vis absorption of erbium and ytterbium bimetallic complexes	Carvalho, Jhonatas	0	10:00 AM 12:00 PM
8	1244	Dissolution studies of SIMFUEL using novel solvent systems: Towards efficient recovery of rare earths and actinides	Bhattacharya, Shaileyee	0	10:00 AM 12:00 PM
9	1245	Utilizing UiO metal organic frameworks for lanthanide separations	Brame, Juliette	0	10:00 AM 12:00 PM
10	1246	Rhamnolipids as a multifuctional platform for REE detection, extraction and separation	Stolley, Ryan	0	10:00 AM 12:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Revolutionizing Science Communication: Innovations, Insights, and Impact
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Tue 10/28/2025 10:00 AM
SESSION END TIME: Tue 10/28/2025 12:00 PM
SESSION HOST: Organizer: H.N. Cheng
Organizer: Ronald Hunter
Organizer: Gregory Wiedman

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1247	Science communication in transition: Selected recent trends	Cheng, H.N.	0	10:00 AM 12:00 PM
2	1248	A science communication Conference that empowers young women	Thammathong, Joshua | Akinleye, Toyin	0	10:00 AM 12:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Celebrating Chemistry Education Luncheon
SESSION TYPE:	Networking Event
SESSION LOCATION:	Royal 2
SESSION START TIME:	Tue 10/28/2025 12:00 PM
SESSION END TIME:	Tue 10/28/2025 2:00 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Workshop: Probabilistic Environmental Risk Assessment of Emerging Contaminants
SESSION TYPE:	Workshop
SESSION LOCATION:	Harbor C
SESSION START TIME:	Tue 10/28/2025 12:00 PM
SESSION END TIME:	Tue 10/28/2025 2:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Bioinorganic Chemistry in the Southeast and Southwest Regions of ACS
SESSION TYPE: Oral
SESSION LOCATION: Nautilus B
SESSION START TIME: Tue 10/28/2025 1:00 PM
SESSION END TIME: Tue 10/28/2025 4:35 PM
SESSION HOST: Organizer: Jonathan Caranto
Presider: Shabnam Hematian
Presider: Gayan Wijeratne

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	1:00 PM 1:05 PM
2	1249	Nickel and cobalt CNC pincer catalysts for photocatalytic carbon dioxide reduction	Papish, Elizabeth	20	1:05 PM 1:25 PM
3	1250	A versatile environment-sensitive turn-on scaffold for detection of metalloenzymes	Price, Sky	20	1:25 PM 1:45 PM
4	1251	Tailored framework designs for improved catalytic efficiency of proteins	Ravanfar, Raheleh	20	1:45 PM 2:05 PM
5	1252	Mechanistic investigation of heme catalyzed carbene cyclopropanations via enzymatic activation of pyridyltriazoles	Zhang, Yong	20	2:05 PM 2:25 PM
6	1253	Leveraging biomimetic membrane architectures to study heme binding and protein dimerization in full-length progesterone receptor membrane component 1	Meier, Katlyn	20	2:25 PM 2:45 PM
7		Coffee Break		20	2:45 PM 3:05 PM
8	1254	Expanding the copper enzymology toolbox: From peptide cyclization to selective halogenation	Hematian, Shabnam	20	3:05 PM 3:25 PM
9	1255	Bioinorganic computational enzymology with the residue interaction network residue selector (RINRUS) software package	Deyonker, Nathan	20	3:25 PM 3:45 PM
10	1256	Structural factors contributing to redox activity of zinc fingers: A molecular dynamics perspective	Bayse, Craig	20	3:45 PM 4:05 PM
11	1257	The effect of metal on hydrolysis of Phosphoester Bonds: experimental and computational study	Makhlynets, Olga	20	4:05 PM 4:25 PM
12		Closing Remarks		10	4:25 PM 4:35 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Forensic Science
SESSION TYPE: Oral
SESSION LOCATION: Magnolia A
SESSION START TIME: Tue 10/28/2025 1:00 PM
SESSION END TIME: Tue 10/28/2025 4:35 PM
SESSION HOST: Organizer: Matthieu Baudelet
Organizer: Candice Bridge
Organizer: Erin Hanson
Organizer: Tamra Legron-Rodriguez
Presider: Matthieu Baudelet
Presider: Candice Bridge
Presider: Erin Hanson
Presider: Tamra Legron-Rodriguez

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Session 1 Introduction: Student Session		5	1:00 PM 1:05 PM
2	1258	Determination of bullet caliber using ICP-OES for forensic applications	Cary, Carter	20	1:05 PM 1:25 PM
3	1259	Testing of a validation method for standardization of non-detonable training aids	Echevarria, Roxana	20	1:25 PM 1:45 PM
4	1260	New evidence in traffic homicide investigation: Rubber particles from tire marks – from their collection, to their isolation and analysis	McAleer, James	20	1:45 PM 2:05 PM
5	1261	Towards assessing the integrity of canine training aids	Castro, Katherine	20	2:05 PM 2:25 PM
6	1262	Enhancing IMS-based, non-contact fentanyl detection using a novel vapor pre-concentrator	Jayawardana, Galpayage Dona Thouli	20	2:25 PM 2:45 PM
7		Closing Remarks		5	2:45 PM 2:50 PM
8		Break		15	2:50 PM 3:05 PM
9		Session 2 Introduction		5	3:05 PM 3:10 PM
10	1263	Effects of experimental conditions on the interpretation of forensic fire debris data	Burkhart, Amanda	20	3:10 PM 3:30 PM
11	1264	Uncovering experimental clues through the role of chemistry in combing the analysis of latent fingerprints and arson investigations	Taylor, Kerri	20	3:30 PM 3:50 PM
12	1265	Nucleobase sensing associated with the porphyrinic metal-organic framework PCN-222	DeMatteo, Julia	20	3:50 PM 4:10 PM
13	1266	Recovery of probative STR profiles from micromanipulated sperm cells in challenging sexual assault samples	Peters Grim, Morgan	20	4:10 PM 4:30 PM
14		Closing Remarks		5	4:30 PM 4:35 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Inorganic Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Pelican Room
SESSION START TIME: Tue 10/28/2025 1:00 PM
SESSION END TIME: Tue 10/28/2025 4:40 PM
SESSION HOST: Organizer: Christopher Chouinard
Presider: Katlyn Meier

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1267	Electronic structures of and electrocatalytic CO_2 reduction using substituted transition metal corrole complexes	Grace, Haleigh	20	1:00 PM 1:20 PM
2	1268	Synthesis of NHC-Zr organometallic complexes with emissive properties via a free Dicarbene method	Juarez Escamilla, Samuel David	20	1:20 PM 1:40 PM
3	1269	Molecular nanoparticles of birnessite-type MnO_2 via reductive aggregation	Hale, Ashlyn	20	1:40 PM 2:00 PM
4	1270	Progress toward synthesizing cyclic (alkyl)(amino)carbene ligands to stabilize low-valent metal-oxo complexes	Ledbetter, Chase	20	2:00 PM 2:20 PM
5	1271	Biphosphinemonoxide ligands for polar olefin copolymerization: A quantitative approach to late-transition metal catalyst design	Pinto, Danna	20	2:20 PM 2:40 PM
6	1272	Non-trigonal phosphorus ligands towards Fe^{II} and Zn^{II} complexes: Theoretical and experimental cooperative chemistry	Hollingsworth, William	20	2:40 PM 3:00 PM
7		Break		0	3:00 PM 3:00 PM
8	1273	Enhanced room temperature phosphorescence of Pd(II) tetra(N-methylpyridyl) porphyrin (PdTMPyP) encapsulated within the metal organic framework HKUST-1(Zn); PdTMPyP@HKUST-1(Zn)	Larsen, Randy	20	3:00 PM 3:20 PM
9	1274	Effect of oriented external electric fields in catalysis using immobilized metalloporphyrins	Haq, Humaira	20	3:20 PM 3:40 PM
10	1275	Structural studies of metal complexes derived from Bis-Hydrazinylpyridine	Das, Alok	20	3:40 PM 4:00 PM
11	1276	Improving the quality of plaster of paris from selected local gypsum samples through modification with additives	Shehu, Abdulkarim	20	4:00 PM 4:20 PM
12	1277	From Cyclopropenyl cation to the structural chemistry of Boron	Jemmis, E	20	4:20 PM 4:40 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Innovations in Inorganic Materials from Nanocrystals to Bulk Crystal Growth
SESSION TYPE: Oral
SESSION LOCATION: Flamingo Room
SESSION START TIME: Tue 10/28/2025 1:00 PM
SESSION END TIME: Tue 10/28/2025 5:00 PM
SESSION HOST: Organizer: Vladislav Klepov
Organizer: Tina Salguero
Presider: Vladislav Klepov
Presider: Tina Salguero

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introduction		5	1:00 PM 1:05 PM
2	1278	Highly anisotropic magnetism in $LnCrGe_3$ ferromagnets (Ln = La, Ce, Pr)	Adegboyega, Samuel	15	1:05 PM 1:20 PM
3	1279	Copper-antimony-sulfide nanoparticles: Synthesis and characterization for thermoelectric and photovoltaic applications	Anderson, Mary	20	1:20 PM 1:40 PM
4	1280	Harnessing sulfide chemistry for environmental cleanup: From toxic metals to legacy nuclear waste	Islam, Saiful	20	1:40 PM 2:00 PM
5	1281	Melt crystal growth of inorganic halide scintillators for x-ray radiography	Zhuravleva, Mariya	20	2:00 PM 2:20 PM
6		Intermission		10	2:20 PM 2:30 PM
7	1282	Discovery of heteroleptic 2D perovskite $Cs_2CdI_2Cl_2$ with 3D electron transport character: synthesis, structure, and optical characterization	McCall, Kyle	20	2:30 PM 2:50 PM
8	1283	Porous hybrid metal halide semiconductors for energy and environment-related applications	Spanopoulos, Ioannis	20	2:50 PM 3:10 PM
9	1284	Understanding the emergence of intrinsic chirality in copper and palladium chloride materials	Straus, Daniel	20	3:10 PM 3:30 PM
10	1285	Order, disorder, and atomic structure evolution of Li-ion Battery electrode materials	Butala, Megan	20	3:30 PM 3:50 PM
11		Intermission		10	3:50 PM 4:00 PM
12	1286	Pressure driven structural changes in rare-earth systems	Altman, Alison	20	4:00 PM 4:20 PM
13	1287	Formation, phase behavior and properties of fluoroperovskites with helium on their A-sites	Wilkinson, Angus	20	4:20 PM 4:40 PM
14	1288	Characterizing and controlling structural phase transitions in battery materials	Bocarsly, Joshua	20	4:40 PM 5:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Lessons and Inspiration from the History of Chemistry
SESSION TYPE: Oral
SESSION LOCATION: Cypress B
SESSION START TIME: Tue 10/28/2025 1:00 PM
SESSION END TIME: Tue 10/28/2025 5:00 PM
SESSION HOST: Organizer: Nicolay Tsarevsky
Presider: Nicolay Tsarevsky

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory remarks		5	1:00 PM 1:05 PM
2	1289	From beakers to battlefields: An interdisciplinary opportunity in chemical education	Feducia, Jeremiah	30	1:05 PM 1:35 PM
3	1290	Mid-century discovery of acetaminophen: A drug metabolite becomes a new analgesic/antipyretic drug	Haddy, Alice	30	1:35 PM 2:05 PM
4	1291	Technology and chemistry of spirits: A brief history	Tsarevsky, Nicolay	30	2:05 PM 2:35 PM
5	1292	A philatelic history of nanotechnology	Rabinovich, Daniel	30	2:35 PM 3:05 PM
6		Intermission		25	3:05 PM 3:30 PM
7	1293	Philosophy of Antoine Lavoisier: Author of the world's first textbook of physical chemistry	Cherbonneaux, Auston	30	3:30 PM 4:00 PM
8	1294	Lisa Meitner's legacy and lessons for contemporary science	Alexander, William	30	4:00 PM 4:30 PM
9	1295	Recent history (1971-2024) of chemistry and science at U. T. El Paso demonstrates the application of successful "WOKE" ideas and funding as catalysts to increase diversity in national Ph. D. science graduates and entry of UTEP into the Carnegie R1 category (the only open access University within that group)	Pannell, Keith	30	4:30 PM 5:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Workshop: Analytical Frontiers in Microplastics Monitoring (Sponsored by Shimadzu)
SESSION TYPE:	Workshop
SESSION LOCATION:	Royal 1
SESSION START TIME:	Tue 10/28/2025 1:00 PM
SESSION END TIME:	Tue 10/28/2025 4:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Advances in Electrochemistry and Bioelectrochemistry
SESSION TYPE: Oral
SESSION LOCATION: Harbor B
SESSION START TIME: Tue 10/28/2025 1:15 PM
SESSION END TIME: Tue 10/28/2025 5:00 PM
SESSION HOST: Organizer: Olja Simoska
Organizer: Sanela Martic
Presider: Seyyedamirhossein Hosseini

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Welcome and Introduction		5	1:15 PM 1:20 PM
2	1296	Hydroquinone-directed electrodeposition of microneedles of gold nanoparticles	Halim, Fahad	20	1:20 PM 1:40 PM
3	1297	Electrochemical deposition of metal nanoparticles on carbon ultramicroelectrode arrays	Simoska, Olja	20	1:40 PM 2:00 PM
4	1298	Size-dependent electrochemical behavior of polyelectrolyte templated platinum nanoparticles	Khalili, Farzane	20	2:00 PM 2:20 PM
5		Intermission		20	2:20 PM 2:40 PM
6	1299	Mechanistic insight into tyrosine oxidation at carbon-fiber microelectrodes revealed by fast-scan cyclic voltammetry	Todorov, Jovica	20	2:40 PM 3:00 PM
7	1300	Enhancing cadmium detection using cadmium-specific ionophores and ITIES-based sensors	Zubak, Olga	20	3:00 PM 3:20 PM
8	1301	Multi-analyte sensing with surface-modified four-bore CFMs: A step toward future in vivo neurodegenerative disease research	Udawaththa, Navoda	20	3:20 PM 3:40 PM
9		Intermission		20	3:40 PM 4:00 PM
10	1302	Electrochemical Co-detection of methylene blue and dopamine on carbon fiber microelectrodes	Melluso, Benjamin	20	4:00 PM 4:20 PM
11	1303	Engineering the temporal response to enhance the performance of DNA monolayer-based electrochemical sensors and enable multiplexing in time	Mazumder, Mainul	20	4:20 PM 4:40 PM
12	1304	Ultra-fast synthesis of a glassy superionic oxyhalide solid electrolyte with a unique compositional space – $Li_2Zr_xTa_{1-x}OCl_{5-x}$	Dikella Gamaralalage, Thilina Nadeemali Dikella	20	4:40 PM 5:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research General Program
SESSION TYPE: Oral
SESSION LOCATION: Magnolia B
SESSION START TIME: Tue 10/28/2025 1:30 PM
SESSION END TIME: Tue 10/28/2025 4:35 PM
SESSION HOST: Organizer: Tamra Legron-Rodriguez
Organizer: Christopher Randles
Presider: Tamra Legron-Rodriguez
Presider: Christopher Randles

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Session 1 Introduction		5	1:30 PM 1:35 PM
2	1305	Investigating the efficacy of self-selected weekly study groups for at-risk students in General Chemistry 1 (CHM2045): A continuation study	Harris, Steven | Sumner, Martina	20	1:35 PM 1:55 PM
3	1306	Integrating experiential learning and critical thinking in general chemistry through the EXACT program	Romero-Reyes, Misael | Sublett Breeden, Veronica	20	1:55 PM 2:15 PM
4	1307	An augmented reality application for teaching conformational analysis in undergraduate organic chemistry	Ramasamy, Saravanan	20	2:15 PM 2:35 PM
5	1308	Shared spaces of learning: co-constructing instruction with undergraduate Learning Assistants	Hosbein, Kathryn	20	2:35 PM 2:55 PM
6		Break		15	2:55 PM 3:10 PM
7	1309	Factors impacting K-12 science educators' confidence implementing information literacy instruction	Lam, Matilynn	20	3:10 PM 3:30 PM
8	1310	Exploring the long-term impact of informative utility value intervention	Nayyar, Pallavi	20	3:30 PM 3:50 PM
9	1311	Investigating the impact of item position on student performance for different types of questions in general chemistry exams	Teran, Oscar	20	3:50 PM 4:10 PM
10	1312	A comparative analysis of the new elementary science textbooks in Korea and Japan: Focusing on the domain of Chemistry and Science and Society	Young Tae, Kong	20	4:10 PM 4:30 PM
11		Closing Remarks		5	4:30 PM 4:35 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Colloids, Surfactants, Interfaces and Nanomaterials
SESSION TYPE: Oral
SESSION LOCATION: Harbor A
SESSION START TIME: Tue 10/28/2025 1:30 PM
SESSION END TIME: Tue 10/28/2025 3:35 PM
SESSION HOST: Organizer: Ajay Mallia
Presider: Ajay Mallia

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	1:30 PM 1:35 PM
2	1313	*In situ* study of Ruthenium deposition and the role of molecular structure	McNealy-James, Terrick	20	1:35 PM 1:55 PM
3	1314	Pushing the limits of ultrasmall PbSe magic-sized clusters	Puri, Pranshu	20	1:55 PM 2:15 PM
4	1315	Molecular weight-dependent, chitosan-assisted recovery of bovine milk-derived extracellular vesicles	Burton, Kameron	20	2:15 PM 2:35 PM
5	1316	Nanorobot interactions and collective behaviors	Ahmed, Suzanne	20	2:35 PM 2:55 PM
6	1317	Characterization of interfacial electrostatic properties of nanoscale lipid vesicles by EPR of lipid-based molecular pH probes	Smirnova, Tatyana	20	2:55 PM 3:15 PM
7	1318	Development of akermanite-rich bioceramics from local dolomite and perlite: structural characterization and bioactivity evaluation	EL MAAKOUL, YASSINE | Harrati, ACHRAF | ARKAME, YOUSSEF | SADIK, CHAOUKI	20	3:15 PM 3:35 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Glycomaterials for a Sustainable Future
SESSION TYPE: Oral
SESSION LOCATION: Nautilus A
SESSION START TIME: Tue 10/28/2025 1:30 PM
SESSION END TIME: Tue 10/28/2025 4:30 PM
SESSION HOST: Presider: Alan Esker
Presider: Maren Roman

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	1:30 PM 1:35 PM
2	1319	GlycoMIP: An NSF-funded resource for researchers studying natural and engineered glycomaterials	Roman, Maren	30	1:35 PM 2:05 PM
3	1320	Fenton degradation of amylose films	Rousan, Rahaf	30	2:05 PM 2:35 PM
4	1321	Arabinoxylan: Derivative synthesis, film formation and degradation	Mensah, Enock	30	2:35 PM 3:05 PM
5		Intermission		15	3:05 PM 3:20 PM
6	1322	Application of QCM-D to lignocellulose challenges	Esker, Alan	30	3:20 PM 3:50 PM
7	1323	Guided generation and flavor scoring of novel sweet molecules	Petri, Jonah	20	3:50 PM 4:10 PM
8	1324	Synthesis of glycopolypeptides for influenza inhibition	White, Melvona	20	4:10 PM 4:30 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Nanoformulated Agrochemicals for Crop Management
SESSION TYPE: Oral
SESSION LOCATION: Magnolia C
SESSION START TIME: Tue 10/28/2025 1:30 PM
SESSION END TIME: Tue 10/28/2025 4:30 PM
SESSION HOST: Organizer: Swadeshmukul Santra
Organizer: Jorge Pereira
Presider: Swadeshmukul Santra
Presider: Jorge Pereira

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory remarks		5	1:30 PM 1:35 PM
2	1325	Mesoporous silica nanocarriers for controlled micronutrient delivery and in-plant tracking with synchrotron X-ray techniques	Gao, Xiaoyu	30	1:35 PM 2:05 PM
3	1326	Using hydrophobic shells to control the release of agrochemicals from polysaccharides	Fairbrother, Howard	30	2:05 PM 2:35 PM
4	1327	Plant proteins for designing drug delivery nanoparticles: Controlling surface charge and composition	Quadir, Mohiuddin	30	2:35 PM 3:05 PM
5		Coffee Break		15	3:05 PM 3:20 PM
6	1328	Molecular simulations for deciphering interaction and aggregation mechanisms on surfaces and nanoparticles key to agrochemical systems	Banerjee, Atiya	30	3:20 PM 3:50 PM
7	1329	Organic nanocarriers encapsulating streptomycin for managing citrus greening disease	Ristroph, Kurt	30	3:50 PM 4:20 PM
8		Concluding Remarks		10	4:20 PM 4:30 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Plasmonic Nanoparticles and Applications--Applications
SESSION TYPE: Oral
SESSION LOCATION: Cypress A
SESSION START TIME: Tue 10/28/2025 1:30 PM
SESSION END TIME: Tue 10/28/2025 4:40 PM
SESSION HOST: Organizer: Shengli Zou
Presider: Yongmei Wang
Presider: Xiaohua Huang

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1330	Rapid, label-free detection and quantification of respiratory viruses using surface-enhanced Raman spectroscopy and machine learning	Zhao, Yiping	25	1:30 PM 1:55 PM
2	1331	Plasmonic nanoparticles for cancer theranostics and environmental remediation	Hooshmand, Nasrin	25	1:55 PM 2:20 PM
3	1332	Single exosome profiling with gold nanoparticles for early breast cancer detection and stage differentiation	Huang, Xiaohua	25	2:20 PM 2:45 PM
4	1333	Hybrid nanoplasmonic probes for ultrasensitive analysis of extracellular vesicles towards cancer diagnosis	Zeng, Yong	25	2:45 PM 3:10 PM
5		coffee breaker		20	3:10 PM 3:30 PM
6	1334	Sub-100 nm Au nanoshells for low-fluence deep-tissue photoacoustic imaging	McPeak, Kevin	25	3:30 PM 3:55 PM
7	1335	Dual-function gold–zinc ferrite nanocomposite sensors for selective colorimetric detection of phosphates in environmental water	Ibrahim, Abed Alqader	25	3:55 PM 4:20 PM
8	1336	Catalytic silver–platinum hollow nanoparticles for enhanced sensitivity in colorimetric lateral flow assays	Zhou, Jinfeng	20	4:20 PM 4:40 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: SERMACS/SWRM: Hosting, Planning, Best Practices and More
SESSION TYPE: Oral
SESSION LOCATION: Cypress C
SESSION START TIME: Tue 10/28/2025 1:30 PM
SESSION END TIME: Tue 10/28/2025 3:45 PM
SESSION HOST: Organizer: Brent Feske
Presider: Brent Feske

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1337	Introduction to SERMACS, Inc. and its structure	Feske, Brent	20	1:30 PM 1:50 PM
2	1338	Introduction to the SWRM Steering Committee	Hubbard, Sara	15	1:50 PM 2:05 PM
3	1339	How to plan a successful regional meeting despite a global pandemic – SWRM 2021	Hull, Kami	25	2:05 PM 2:30 PM
4	1340	Tips and tricks learned by hosting SERMACS2018	Whiteside, Tad	25	2:30 PM 2:55 PM
5	1341	SWRM 2023, lessons learned and a few, hopefully useful tips	Blum, Frank	25	2:55 PM 3:20 PM
6	1342	Tips and tricks for a program chair hosting a regional meeting	Feske, Brent	25	3:20 PM 3:45 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Ultrafast and Nonlinear Spectroscopy
SESSION TYPE: Oral
SESSION LOCATION: Nautilus C
SESSION START TIME: Tue 10/28/2025 1:30 PM
SESSION END TIME: Tue 10/28/2025 3:20 PM
SESSION HOST: Organizer: Paul Ohno
Organizer: Bryan Kudisch
Organizer: Sean Roberts
Presider: Paul Ohno
Presider: Bryan Kudisch
Presider: Sean Roberts

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	1:30 PM 1:35 PM
2	1343	Ultrafast pathways to triplet states: A tale of two photophysical processes	Rather, Shahnawaz	20	1:35 PM 1:55 PM
3	1344	Solvated electrons in radical anion photocatalysis	Das, Somnath	20	1:55 PM 2:15 PM
4	1345	Manipulating the ligand-field dynamics of Cr(III) *Tris*(1,10-phenanthroline) via ligand functionalization	Barth, Alexandra	20	2:15 PM 2:35 PM
5	1346	Photodynamic behavior of uracil modified by the ring substitution	chudali, Moti raj	20	2:35 PM 2:55 PM
6	1347	Time-resolved photoelectron study of gas phase 5-azacytosine: Effect of aza-substitution on excited state dynamics in cytosine	Duwal, Bijay	20	2:55 PM 3:15 PM
7		Closing Remarks		5	3:15 PM 3:20 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: General Topics in Organic Chemistry
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Tue 10/28/2025 2:00 PM
SESSION END TIME: Tue 10/28/2025 4:00 PM
SESSION HOST: Organizer: Christopher Chouinard

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1348	Synthesis and characterization of GUMBOS and NanoGUMBOS for targeted applications	uchenna, mbadozie	0	2:00 PM 4:00 PM
2	1349	Biocatalytic Aza-Michael addition of aromatic amines to enone using α-amylase in water	DUTT, SUNIL	0	2:00 PM 4:00 PM
3	1350	Discovery and development of benzothiophene ketones as STING agonists	Henderson, Timothy	0	2:00 PM 4:00 PM
4	1351	Asymmetric synthesis with the use of a microwave reactor and chiral Bronsted acid	Carsley, Jessica	0	2:00 PM 4:00 PM
5	1352	Scalable methanolysis reactor design for chemical recycling of condensation polymer	Ball, Lauryn | Bogan, Maria	0	2:00 PM 4:00 PM
6	1353	Therapeutic modalities at Merck	Hanisak, Jennifer	0	2:00 PM 4:00 PM
7	1354	Bioassisted synthesis of Ag/AgCl nanoparticles using medicinal plant extracts and their antibacterial activity	Gómez Rivera, Abraham	0	2:00 PM 4:00 PM
8	1355	Development of chemoselective reactions for amino acid sidechains for applications in protein sequencing	Heyl, Calvin	0	2:00 PM 4:00 PM
9	1356	Computational design of bispecific DuoBody antibodies targeting CD40 and 41-BB receptors for T cell-mediated immunotherapy in non-small cell lung cancer (NSCLC)	Singh, Darsh Pratap	0	2:00 PM 4:00 PM
10	1357	Synthesis and evaluation of multi-substituted tetrahydroquinoline-based alphavirus inhibitors	Hampton, Tamia	0	2:00 PM 4:00 PM
11	1358	Exploring functional activity of novel hybrid delta opioid receptor ligands	Diaz, Kallee	0	2:00 PM 4:00 PM
12	1359	A modern approach to selenation of aliphatic C–H bonds	Rohilla, Komal	0	2:00 PM 4:00 PM
13	1360	Cyclohexadiene as a potential bioorthogonal tag through Diels-Alder reactions	Asadi, Mina	0	2:00 PM 4:00 PM
14	1361	Fischer esterification for chemoselective labeling of carboxylates in polypeptides	Rose, Kathryn	0	2:00 PM 4:00 PM
15	1362	Cyclizing heptamethine cyanines: A new class of fluorogenic cyanines	Kumarasiri, Buddhini	0	2:00 PM 4:00 PM
16	1363	Sequential heterocycle oxidations and nucleophilic additions	Surrusco, Luke	0	2:00 PM 4:00 PM
17	1364	Microwave-assisted methanolysis for low-energy depolymerization of condensation polymers	Bogan, Maria | Oxendine, Christian	0	2:00 PM 4:00 PM
18	1365	Identification and characterization of FKBP52-specific inhibitors for the treatment of prostate cancer	Sahragardan, Niloofar	0	2:00 PM 4:00 PM
19	1366	Isolation, chemical characterization, and investigation of anticaner effects of novel polar flavonoids from c*hromolaena leivensis*	Tetteh, Matthew	0	2:00 PM 4:00 PM
20	1367	Terpene brew: Expression of *neo*-dolabellane encoding genes from *Erythropodium caribaeorum* in brewer's yeast	Jakubec, Erik	0	2:00 PM 4:00 PM
21	1368	Design and development of Sulfono-γ-AApeptide-modified OH-CM6 analogs to combat drug-resistant bacteria	Mahmoud, Mentalla	0	2:00 PM 4:00 PM
22	1369	Nitroalkane synthesis: Combining classical and modern approaches	Gonzalez Ramirez, Keyla	0	2:00 PM 4:00 PM

23	1370	Terpenoid-mediated defense in Caribbean Gorgonian Corals: Insights into predator deterrence and metabolite diversity	Kanya, Nicole	0	2:00 PM 4:00 PM
24	1371	Synthesis of prochiral substrates and biocatalytic oxidation to form α-acyloxy ketone scaffolds	Martinez, Claire	0	2:00 PM 4:00 PM
25	1372	Prebiotic reactivity of formaldehyde and cyclic dipeptide under mechanochemical conditions	Thuan, Jamie	0	2:00 PM 4:00 PM
26	1373	Ag(I)/$K_2S_2O_8$-mediated selective oxidation of ynamide-Yne *via* structural reshuffling and consecutive *N*-desulfonylation	Mutra, Mohana Reddy	0	2:00 PM 4:00 PM
27	1374	Exploring photochemical properties of intramolecular B-O chelated Aza-BODIPY dyes	To, Ngoc Diem Kieu	0	2:00 PM 4:00 PM
28	1375	Structural optimization of thiophene reagents for tryptophan-selective polypeptide modification	Joyner, Emily	0	2:00 PM 4:00 PM
29	1376	Synthesis of substrates and standards to investigate biocatalytic heteroatom oxidation	Johnson, Andrew	0	2:00 PM 4:00 PM
30	1377	Synthesis of self-assembling oxazaborole macrocycles	Mensah, Bernard	0	2:00 PM 4:00 PM
31	1378	Synthesis and characterization of diazapentalene derivatives from pyrazole and acetone condensation products	Hussein, Islam	0	2:00 PM 4:00 PM
32	1379	Ligand development for effective metal-mediated carbonyl allylation	Matthews, Ben	0	2:00 PM 4:00 PM
33	1380	Efforts toward an alternative synthesis of avibactam	Campagnola, Gabriella	0	2:00 PM 4:00 PM
34	1381	Optimizing hydrogenation reactions with gas chromatography: Unveiling the effects of temperature, pressure, and catalysts	Rahim, Masoumeh	0	2:00 PM 4:00 PM
35	1382	Exploring pathways for Fullerene formation	Chuidian, Lucas	0	2:00 PM 4:00 PM
36	1383	Harnessing the therapeutic potential of selenium	Weaver, Devin	0	2:00 PM 4:00 PM
37	1384	Discovery of a novel compound with potential to overcome glioblastoma drug resistance	Zhang, Hualin	0	2:00 PM 4:00 PM
38	1385	Synthesis of a novel, in silico designed, inhibitor of ALAS for treatment of Porphyria	Murray, Cameron	0	2:00 PM 4:00 PM
39	1386	Preliminary phytochemical characterization and antimicrobial activity of organic extracts from Cecropia obtusifolia B. and Cecropia peltata L.	Lobato Garcia, Carlos Ernesto	0	2:00 PM 4:00 PM
40	1387	Importance of Carbon-13 (13C), Deuterium (2H), Oxygen-18 (18O) and Nitrogen-15 (15N) isotopically labeled precursors of vitamin B_3 in NAD^+ (nicotinamide adenine dinucleotide) metabolism and catabolism	Hayat, Faisal	0	2:00 PM 4:00 PM
41	1388	Photocatalyzed C(sp^3)–N bond activation of isonitriles for Mizoroki-Heck cross-coupling with vinyl arenes	Wood, Allanah	0	2:00 PM 4:00 PM
42	1389	Design, synthesis, and evaluation of Spns2 inhibitors for the treatment of chronic kidney disease	Coyle, Olivia	0	2:00 PM 4:00 PM
43	1390	Exploring uncharted diterpenoids: Functionalization of the gersemiane scaffold for potential anticancer applications	Carley, Isabel	0	2:00 PM 4:00 PM
44	1391	PCET-mediated intermolecular hydroetherification of alkoxy radicals	Delgutte, Lucien	0	2:00 PM 4:00 PM
45	1392	Platinum-catalyzed cyclopropanation of vinyl arenes employing diazirines as carbene precursors	Cohen Suarez, Miguel	0	2:00 PM 4:00 PM
46	1393	Fluorescence with a Focus- One Scaffold, Two Triggers: Tailored synthesis of Aza-BODIPYs for pH and Metal Responsiveness for NIR potential bioimaging applications	Basant, Olivia	0	2:00 PM 4:00 PM
47	1394	Cold chemistry: Unearthing antibiotics from Antarctic benthic life	Comly, Andrew	0	2:00 PM 4:00 PM
48	1395	A bioluminogenic probe for monitoring heparanase activity in vitro and in vivo	Somers`, Johnathan	0	2:00 PM 4:00 PM
49	1396	Improvements in design and synthesis of sensor Heterocyclophanes	Link, Andrew	0	2:00 PM 4:00 PM

50	1397	Cobalt-Catalyzed Enantioconvergent Decarboxylative N-Alkylation	Trevino, Ramon | Sanchez, Jacob	0	2:00 PM 4:00 PM
51	1398	Progress towards the synthesis of unsymmetric pyridyl-1,2,4-triazine complexant scaffolds via tandem metal-catalyzed borylation/cross-coupling with application to minor actinide separation	OPOKU ACHEAMPONG, CLEMENT	0	2:00 PM 4:00 PM
52	1399	Engineering cyclopropanol-derivatized sphingosines: Synthesis, metabolic incorporation and proteomic analysis	Wijesooriya, Akshani Anjula	0	2:00 PM 4:00 PM
53	1400	Sustainable synthesis of furfural-based *N*-acyl hydrazones toward novel organocatalysts and antimicrobial agents	Murphy, Kyle	0	2:00 PM 4:00 PM
54	1401	Ongoing development of novel reactivators of human acetylcholinesterase to treat nerve agent poisoning	Jones, Thane	0	2:00 PM 4:00 PM
55	1402	Controlling alkoxy radical reactivity via an in-equilibrium back electron transfer	Hua, Yunkai	0	2:00 PM 4:00 PM
56	1403	A Biomimetic approach toward bioactive triterpenoid natural products	Kellar, Kyle	0	2:00 PM 4:00 PM
57	1404	Nitric acid- and transition metal-free synthesis of nitramines: Applications in novel natural product discovery and enzyme inhibition	Rathman, Benjamin	0	2:00 PM 4:00 PM
58	1405	Design and synthesis of a conjugated cycloparaphenyleneacetylene-based Nanocavitand: Toward chiral guest encapsulation	Lawrence, Charlotte	0	2:00 PM 4:00 PM
59	1406	Under the surface: Exploring the bioactive depths of Ophiocordyceps	Herrera Figueira, Paola Susanna	0	2:00 PM 4:00 PM
60	1407	Syntheses of pentagonal and hexagonal cyclophanes: Applications in host–guest systems and selective molecular encapsulation	Ou, Jennifer	0	2:00 PM 4:00 PM
61	1408	Investigation of thermal properties in liquid state compounds derived from Parkinson's Therapeutics and anti-inflammatory anions	Cojocaru, Oana	0	2:00 PM 4:00 PM
62	1409	General strategy for polymethine substituted oxonol fluorophore and conversion to fluorogenic probe	Biakengzaua, Fnu	0	2:00 PM 4:00 PM
63	1410	A cyanine dye functionalized with amino acids at the meso position for potential use as a pH-responsive imaging agent	Azizi Khereshki, Nasibeh	0	2:00 PM 4:00 PM
64	1411	Synthesis of 1-allyl-3-methylimidazolium acetate for use in biopolymer dissolutions	Guy, Jacob-Kurtis	0	2:00 PM 4:00 PM
65	1412	Bronsted's acid-catalyzed transformation of rare nitrogen-containing heterocycles: Synthesis and computational studies	Ibeji, Collins	0	2:00 PM 4:00 PM
66	1413	Advances in near-infrared dyes for biomedical imaging: Applications in cartilage visualization	Henary, Maged	0	2:00 PM 4:00 PM
67	1414	C-H bond oxidation: A green approach to the oxidation of aminophenol derivatives: A conceptual framework	Van Dyke, Noah | Franklin, Jasmine	0	2:00 PM 4:00 PM
68	1415	*Syn*-selective Aldol Reactions of *N*, *N*-dimethylarylacetamides	Bankston, Carlie | Chanda, Prem	0	2:00 PM 4:00 PM
69	1416	*Anti*-selective Aldol Reactions of *N*, *N*-diisopropylarylacetamides	Morrison, John | Chanda, Prem	0	2:00 PM 4:00 PM
70	1417	Diisopinocampheylboron triflate (Ipc_2BOTf)-mediated enantioselective *Syn*-aldol reactions of *N*, *N*-dimethylarylacetamides	Castaneda, Jenny | Chanda, Prem	0	2:00 PM 4:00 PM
71	1418	Improved procedure for the oxidation of Borneol to Camphor	Jules, Kate	0	2:00 PM 4:00 PM
72	1419	An Investigation into the Diels-Alder reactions of 9-Anthracene Methanol	Julius, Johnathan	0	2:00 PM 4:00 PM
73	1420	Synthesis and binding evaluation of a 2-methoxy-4-nitrophenyl-based receptor for oxoanions	Fickling, Jada	0	2:00 PM 4:00 PM
74	1421	Mild and modular synthesis of tertiary amines using iodonium salt–mediated functionalization	Dannatt, Jonathan	0	2:00 PM 4:00 PM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Structures and Properties of Photoactive Materials
SESSION TYPE: Poster
SESSION LOCATION: Majestic Ballroom
SESSION START TIME: Tue 10/28/2025 2:00 PM
SESSION END TIME: Tue 10/28/2025 4:00 PM
SESSION HOST: Organizer: Dongmao Zhang
Organizer: Tom Hopper
Organizer: Shengli Zou

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1422	Investigating the excited state dynamics of DIPP-PDI and methylene blue in thin films	Smith, Athena	0	2:00 PM 4:00 PM
2	1423	Design of crosslinkers compatible with metal-free ring-opening metathesis polymerization (MF-ROMP)	Raftari, Rafat	0	2:00 PM 4:00 PM
3	1424	Photo and electrochemical properties of N-arylated dipyridyl thiazolo[5,4-d]thiazoles	Anderson, James	0	2:00 PM 4:00 PM
4	1425	Probing mechanisms of the CISS effect with chiral peptide-porphyrin systems	Cinnater, Victoria	0	2:00 PM 4:00 PM
5	1426	Synthesis and characterization of thiophene extended viologens for photochromic applications	Adams, Tyler	0	2:00 PM 4:00 PM
6	1427	Synthesis of isoquinolinyl derivatives of planar Blatter radicals through photocyclization	Friedli, Andrienne	0	2:00 PM 4:00 PM
7	1428	Investigation of the role of the photo-Smiles rearrangement in formation of 9-substituted planar Blatter radicals	Friedli, Andrienne	0	2:00 PM 4:00 PM
8	1429	Co-facial Blatter radicals: Properties of rotational isomers	Friedli, Andrienne	0	2:00 PM 4:00 PM
9	1430	Reversible proton control in basic solution conditions using a novel benzimidazole-type metastable-state photoacid	Laud, Melyse	0	2:00 PM 4:00 PM
10	1431	Highly effective method for stabilization and functional enhancement of merocyanine photoacids via a biomimetic approach	Liyanage, Pavithra	0	2:00 PM 4:00 PM

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Top Hat - Focus Group
SESSION TYPE:	Special Event
SESSION LOCATION:	Harbor C
SESSION START TIME:	Tue 10/28/2025 2:30 PM
SESSION END TIME:	Tue 10/28/2025 4:00 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	Plenary: Reflections on an Analytical Chemistry Career (mostly) in the U.S. DOE National Labs
SESSION TYPE:	Plenary
SESSION LOCATION:	Royal 2
SESSION START TIME:	Tue 10/28/2025 5:15 PM
SESSION END TIME:	Tue 10/28/2025 6:15 PM
SESSION HOST:	

Event Information	
PROGRAM:	SERMACS/SWRM 2025
SESSION TITLE:	SERMACS/SWRM Awards Banquet
SESSION TYPE:	Special Event
SESSION LOCATION:	Citrus A/B
SESSION START TIME:	Tue 10/28/2025 6:30 PM
SESSION END TIME:	Tue 10/28/2025 10:00 PM
SESSION HOST:	

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Chemistry Education Research General Program
SESSION TYPE: Oral
SESSION LOCATION: Magnolia B
SESSION START TIME: Wed 10/29/2025 8:00 AM
SESSION END TIME: Wed 10/29/2025 11:50 AM
SESSION HOST: Organizer: Tamra Legron-Rodriguez
Organizer: Christopher Randles
Presider: Tamra Legron-Rodriguez

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Session 2 Introduction		5	8:00 AM 8:05 AM
2	1432	Exploratory analysis of student motivation and anxiety in chemistry courses	Negron, Erick	20	8:05 AM 8:25 AM
3	1433	Developing a stimulus tool to examine links between test anxiety, working memory, and test performance	Roshandel, Marjan	20	8:25 AM 8:45 AM
4	1434	“I can see where you’re coming from”: The role of previous experience on ULAs’ instructional decision-making	Richards, Esther	20	8:45 AM 9:05 AM
5	1435	Identifying barriers and self-perceptions of blind and visually impaired (BVI) chemists on their ability to perform chemistry	Nelson, Jarah	20	9:05 AM 9:25 AM
6	1436	Adopting the PISQ-5d survey for use in STEM: A mixed-methods evaluation of the practices factor	Bechard, Cameron	20	9:25 AM 9:45 AM
7		Closing Remarks Session 2		5	9:45 AM 9:50 AM
8		Break		15	9:50 AM 10:05 AM
9		Session 3 Introduction		5	10:05 AM 10:10 AM
10	1437	Investigating chemistry students use of heuristics across nucleophilic and electrophilic reaction and intermolecular force contexts	Robinson, Chloe	20	10:10 AM 10:30 AM
11	1438	Enhancing intermolecular force understanding in general chemistry II through electrostatic potential map assignments	Krzypkowski, Stephanie	20	10:30 AM 10:50 AM
12	1439	Broadening UV–Vis spectroscopy education: A comprehensive framework beyond the Beer–Lambert law	Wathudura, Pathum	20	10:50 AM 11:10 AM
13	1440	Students’ sensemaking of electrostatic potential maps within substitution and elimination reactions	Nelsen, Isaiah	20	11:10 AM 11:30 AM
14		Closing Remarks Session 3		5	11:30 AM 11:35 AM
15		Break		15	11:35 AM 11:50 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Revolutionizing Science Communication: Innovations, Insights, and Impact
SESSION TYPE: Oral
SESSION LOCATION: Magnolia C
SESSION START TIME: Wed 10/29/2025 8:00 AM
SESSION END TIME: Wed 10/29/2025 11:25 AM
SESSION HOST: Presider: H.N. Cheng
Organizer: H.N. Cheng
Organizer: Ronald Hunter
Organizer: Gregory Wiedman

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1	1441	New developments in science communication: An overview	Cheng, H.N.	10	8:00 AM 8:10 AM
2	1442	Role identity in the training and practice of science communication in chemistry	Sandi-Urena, Santiago	30	8:10 AM 8:40 AM
3	1443	Click, share, discover: Harnessing social media to bridge science and society	Cooper-Morgan, Amalene	30	8:40 AM 9:10 AM
4	1444	Chemistry in verse: Poetry as a tool for the communication of chemical ideas	Tsarevsky, Nicolay	30	9:10 AM 9:40 AM
5		Intermission		15	9:40 AM 9:55 AM
6	1445	Inclusive teaching strategies to improve STEM communication: Half-life your message, student-designed newsletter, and Universal Design for learning	Babyak, Carol	30	9:55 AM 10:25 AM
7	1446	Revolutionizing science communications to empower and advocate for young girls and boys into careers in the chemical sciences	Akinleye, Toyin | Perna, Shruthi | Thammathong, Joshua | Iriarte-Gross, Judith	30	10:25 AM 10:55 AM
8	1447	Twenty five years of integrating science communication into summer undergraduate research experiences at James Madison University	Watkins, Linette	30	10:55 AM 11:25 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: AI Education and AI in Education
SESSION TYPE: Oral
SESSION LOCATION: Magnolia A
SESSION START TIME: Wed 10/29/2025 8:30 AM
SESSION END TIME: Wed 10/29/2025 11:30 AM
SESSION HOST: Organizer: Johnathan Broome
Organizer: Christopher Randles
Presider: Johnathan Broome

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introduction		5	8:30 AM 8:35 AM
2	1448	Co-created AI tools for personalized STEM learning: A cross-institutional approach to scaffolded problem-solving	Ritchie, Tom	20	8:35 AM 8:55 AM
3	1449	Using a 4-step prompt creation framework to generate isomorphic problems in the sciences using generative AI platforms	Randles, Christopher	20	8:55 AM 9:15 AM
4	1450	Exam question creation through AI prompt-to-prompt chaining: Isomorphic problem banks in Chemistry	Ibrahim, Jana	20	9:15 AM 9:35 AM
5	1451	Empowering chemistry education with AI: Lessons from the Valencia College/UCF ESTELA faculty workshop	Norbutus, Amanda	20	9:35 AM 9:55 AM
6		Break		15	9:55 AM 10:10 AM
7	1452	Identifying generative artificial intelligence chatbot use and the impact of question design on multiple-choice, general chemistry exams	Hanson, Kenneth	20	10:10 AM 10:30 AM
8	1453	Current hype of AI: Transforming organic chemistry teaching and learning at the undergraduate curriculum	Rahman, Abul	20	10:30 AM 10:50 AM
9	1454	Developing machine learning models for evaluating organic chemistry learners' explanations of electrophiles and nucleophiles	Crowder, Caroline	20	10:50 AM 11:10 AM
10	1455	Utilizing game-based learning and artificial intelligence in the curriculum	Schroeder, Kersten	20	11:10 AM 11:30 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Emerging Trends in Bio-based Polymers: A Pioneering Perspective and Advancements
SESSION TYPE: Oral
SESSION LOCATION: Cypress A
SESSION START TIME: Wed 10/29/2025 8:30 AM
SESSION END TIME: Wed 10/29/2025 10:20 AM
SESSION HOST: Organizer: Mayankkumar Chaudhary
Organizer: Chandan Bodhak
Organizer: Ram Gupta
Presider: Mayankkumar Chaudhary
Presider: Chandan Bodhak
Presider: Ram Gupta

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Introductory Remarks		5	8:30 AM 8:35 AM
2	1456	Bio-based boronic ester vitrimers: a prodigious journey towards sustainable covalent adaptable networks (CANs) with robust properties	BODHAK, CHANDAN	20	8:35 AM 8:55 AM
3	1457	Circularity in plastic packaging: Coextruded multilayer films with excellent barrier and biodegradable properties	Sahu, Pranabesh	20	8:55 AM 9:15 AM
4	1458	Bio-based Pu and NIPU adhesives: Impact of crosslinkers on strength and sustainability	Chaudhary, Mayankkumar	20	9:15 AM 9:35 AM
5	1459	Advanced functionalization of bio-based coatings: Enhancing anti-smudge, mechanical strength, hydrophobicity, and thermal stability	Patel, Rutu	20	9:35 AM 9:55 AM
6	1460	Non-isocyanate polyurethane coatings with silicon-based compound: A green approach for high-performance coatings	Kumar, Ajay	20	9:55 AM 10:15 AM
7		Closing Remarks		5	10:15 AM 10:20 AM

Session Information

PROGRAM: SERMACS/SWRM 2025
SESSION TITLE: Innovations in Inclusive Introductory Teaching: Pedagogical Strategies to Improve Introductory STEM Courses
SESSION TYPE: Oral
SESSION LOCATION: Cypress B
SESSION START TIME: Wed 10/29/2025 8:30 AM
SESSION END TIME: Wed 10/29/2025 11:15 AM
SESSION HOST: Organizer: Brian Mosby
Organizer: Kasandra Riley
Presider: Brian Mosby
Presider: Kasandra Riley

Order	Paper Number	Abstract Title	Presenter	Duration	Start/End Time
1		Opening Remarks		5	8:30 AM 8:35 AM
2	1461	Implementation of concurrent chemistry of art courses for both science and non-science majors	Goforth, Sarah	20	8:35 AM 8:55 AM
3	1462	Repetition with purpose: Revisiting a familiar scenario to strengthen conceptual connectivity in general chemistry sequence	Sigdel Regmi, Bhawani	20	8:55 AM 9:15 AM
4	1463	Bridging the gap: How a first-year seminar with multimodal high-impact practices and multi-layered mentoring supports psychosocial success in freshmen STEM majors	Silva, Supuni Dhameera	20	9:15 AM 9:35 AM
5	1464	Reducing anxiety towards assessment in introductory STEM courses	Sublett Breeden, Veronica	20	9:35 AM 9:55 AM
6		Break		15	9:55 AM 10:10 AM
7	1465	The Periodic Puzzle Project: Development of a variant sudoku puzzle book full of chemistry history and trivia	Alexander, William	20	10:10 AM 10:30 AM
8	1466	From passive viewing to active learning: Enhancing general chemistry education through student-led demonstrations	Todebush, Patricia	20	10:30 AM 10:50 AM
9	1467	Impact of team formation on student outcomes in a general chemistry II team-based learning and flipped classroom	McGreal, Meghan	20	10:50 AM 11:10 AM
10		Closing Remarks		5	11:10 AM 11:15 AM