

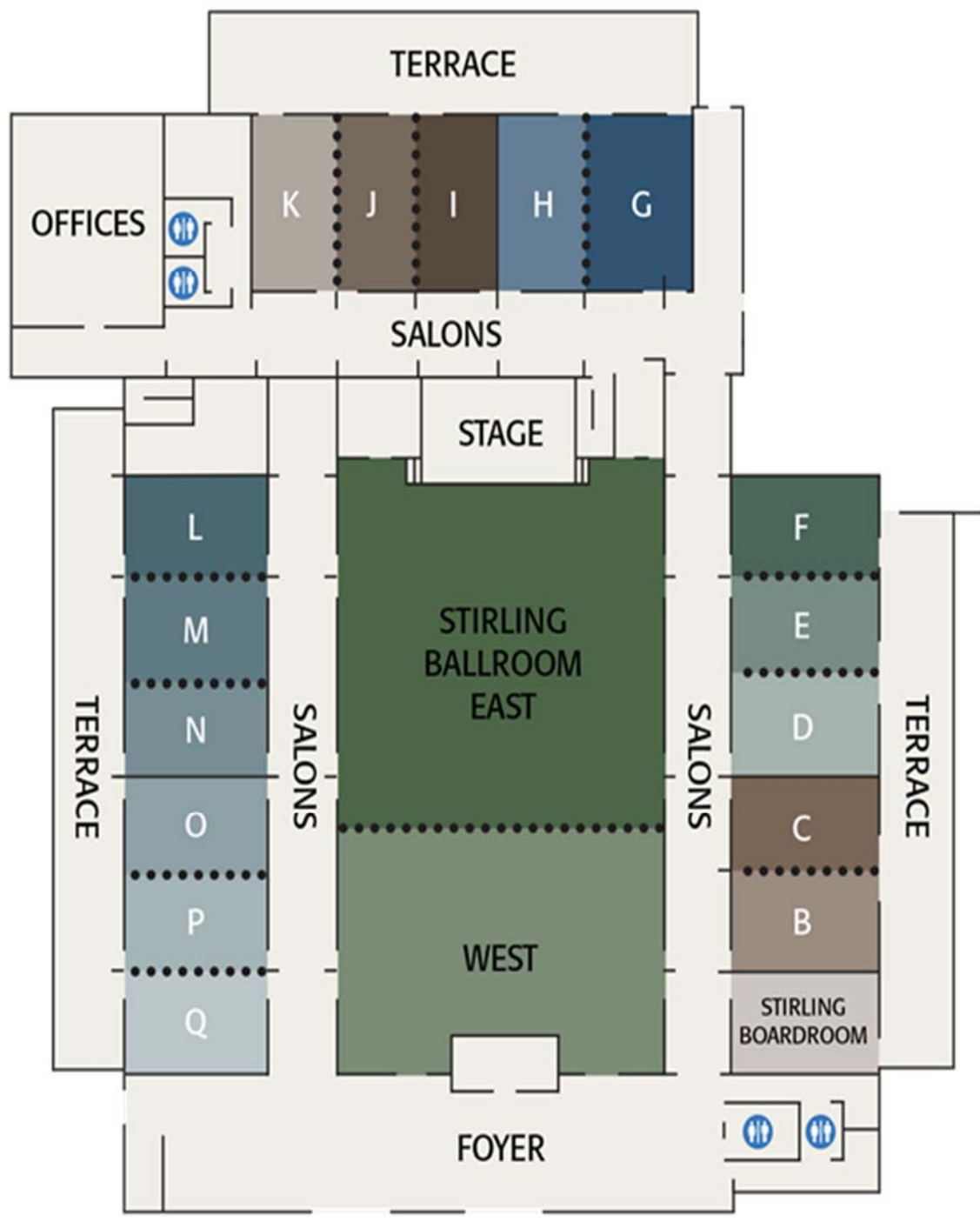


FAME 2022

96th Florida Annual Meeting and Exposition

PROGRAM OF ACTIVITIES





STIRLING HALL



FLACS
FLORIDA ANNUAL MEETING & EXPOSITION

OFFICIAL PROGRAM

FLACS (Florida Section of the ACS) Committee

Message from the FLACS Chair and Program Chair

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FLACS
Publication of the Florida Section of the American Chemical Society

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FROM THE FLACS and Program CHAIR



On behalf of the Florida Section of the American Chemical Society (FLACS), welcome to the 94th Florida Annual Meeting and Exposition (FAME). As the 2022 FLACS Chair, I would like to sincerely thank you for your participation and support of this year's meeting. We are finally back to having our annual FAME after a 2-year hiatus due to COVID-19.

I would like to acknowledge all those who were instrumental in getting us back together including our organizers and FLACS executive board members.

At this year's meeting, we are pleased to present our Florida award winners from 2020, 2021, and 2022 who are all able to be here and present. They are extraordinary Chemists in their field and excited to have them speak,

Students, postdoctoral scholars, faculty, and researchers from over 50 academic and industrial institutions across Florida and the southeastern United States have chosen to share their work at this meeting. There are also collaborative work from across the nation represented in this work. We have over 140 talks and over 100 posters. Every year I am inspired by the work of my colleagues, students, post-docs and industry partners sharing new projects and ideas to tackle old problems. Like each year past, I am certain that this year will be no different. While this annual meeting traditionally invites participation from both professional and student members, FAME is particularly unique in the opportunity it provides for students (both graduate and undergraduate) to present their research in a relaxed and friendly environment; this year, students submitted majority of the abstracts.

In addition to attending the technical symposia, poster presentations, and exhibition, I encourage you to take advantage of the social events we have planned as a way to network, share ideas, and have fun. Social events include the Welcome Reception, which runs concurrently with Poster Sessions on Thursday and Saturday evening, and the Graduate Student and Faculty Mixers at Market Salamander Bar and Packard's Patio, respectively.

Finally, I would like to thank the FLACS executive committee for their efforts in organizing FAME this year. I would also like to thank our sponsors and exhibitors for their support. Please enjoy the conference as you learn about all of the exciting research happening in and around Florida!

Deborah Bromfield Lee
FLACS Chair

FROM THE FLACS Chair Elect-Designate and Poster CHAIR



We are thrilled at the number of participants for the fall FAME 2022! We have not met for a full FAME conference since 2019 and with the different meeting time (August instead of May) we were not sure what the participation would be. As Deborah and I have worked to put this together I get a real sense of excitement to meet again and share our work. I look forward to meeting you all and I hope you have a wonderful meeting. We are working to bring the meeting back to May for 2023. Thank you for your support of FLACS and FAME.

Kari Basso
FLACS Chair-Elect Designate

We are pleased to acknowledge the following individuals, companies, and institutions that helped to sponsor Symposia AND Exhibit at FAME 2022:





The UF College of Liberal Arts and Sciences and the UF College of Pharmacy.



University of Florida NIH T32 Program: Chemistry and Biology
Interface

NSF FAMU Crest Award # 1735968

PAST FLORIDA AWARD WINNERS

1952	Paul Gross	Duke University	1987	Delos F. DeTar	Florida State University
1953	A. E. Wood	University of Mississippi	1988	Edward K. Mellon	Florida State University
1954	C. B. Pollard	University of Florida	1989	William R. Dolbier	University of Florida
1955	H. E. Skipper	Southern Research Institute	1990	R. Bruce King	University of Georgia
1956	George K. Davis	University of Florida	1991	George R. Newkome	University of South Florida
1957	C. R. Hauser	Duke University	1992	Charles E. Carraher	Florida Atlantic University
1958	Karl Dittmer	Florida State University	1993	Norman L. Allinger	University of Georgia
1959	J. E. Hawkins	University of Florida	1994	Albert Padwa	Emory University
1960	H. H. Sisler	University of Florida	1995	Alan R. Katritzky	University of Florida
1961	Michael Kasha	Florida State University	1996	Luis Echegoyen	University of Miami
1962	Jack Hine	Georgia Institute of Technology	1997	N. Yngve Öhrn	University of Florida
1963	George Butler	University of Florida	1998	Jack Saltiel	Florida State University
1964	C. T. Bahner	Carson-Newman College	1999	Mostafa El-Sayed	Georgia Institute of

					Technology
1965	Werner Herz	Florida State University	2000	Rodney J. Bartlett	University of Florida
1966	Paul Tarrant	University of Florida	2001	Thomas J. Vickers	Florida State University
1967	O. K. Rice	University of North Carolina	2002	Alan G. Marshall	Florida State University
1968	Earl Frieden	Florida State University	2003	Kenneth B. Wagener	University of Florida
1969	John Baxter	University of Florida	2004	John G. Dorsey	Florida State University
1970	S. P. McGlynn	Louisiana State University	2005	Charles R. Martin	University of Florida
1971	Ray Lawrence	USDA Naval Stores Laboratory	2006	Roger M. Leblanc	University of Miami
1972	James. V. Quagliano	Florida State University	2007	Naresh Dalal	Florida State University
1973	Gregory Choppin	Florida State University	2008	George Christou	University of Florida
1974	Sidney Fox	University of Miami	2009	Kirk S. Schanze	University of Florida
1975	Dean F. Martin	University of South Florida	2010	Timothy Cross	Florida State University
1976	William Jones	University of Florida	2011	Frank Millero	University of Miami
1977	Cecil Criss	University of Miami	2012	Weihong Tan	University of Florida
1978	Harry Walborsky	Florida State University	2013	Joseph Schlenoff	Florida State University

1979	Mary Good	Louisiana State University	2014	Weitao Yang	Duke University
1980	Raymond Sheline	Florida State University	2015	Lisa McElwee-White	University of Florida
1981	Wallace Brey	University of Florida	2016	Richard D. Adams	University of South Carolina
1982	James D. Winefordner	University of Florida	2017	David N. Beratan	Duke University
1983	Theodore A. Ashford	University of South Florida	2018	Kevin M. Smith	Louisiana State University
1984	Leo Mandelkern	Florida State University	2019	John R. Reynolds	Georgia Institute of Technology
1985	Brian Stevens	University of South Florida	2020	Brian C. Benicewicz	University of South Carolina
1986	Harry P. Shultz	University of Miami	2021	Jeffrey Johnson	University of NC Chapel Hill

2022 FLORIDA AWARD

Igor V. Alabugin FLORIDA STATE UNIVERSITY Tallahassee, FL



Igor V. Alabugin is the Distinguished Research Professor at the Florida State University, Tallahassee, FL. He received his Ph.D. degree from the Moscow State University in 1995 under the supervision of Professors N. S. Zefirov, N. V. Zyk, and V. K. Brel. After completing postdoctoral studies at the University of Wisconsin-Madison with Professor H. E. Zimmerman, he joined the Department of Chemistry and Biochemistry of the Florida State University in 2000. He currently serves as Associate Editor for the Journal of Physical Organic Chemistry, as the US representative in the IUPAC Subcommittee on Structural and Mechanistic Chemistry, and in the advisory boards of several journals and conferences.

His research combines theoretical and experimental organic chemistry. It ranges from electronic and conformational control of cycloaromatization reactions of enediynes to transition state stabilization in “click” cycloadditions, construction of carbon-rich nanostructures via cascade transformations of alkynes, radical cyclizations and fragmentations including the first metal-free conversion of phenols into esters and amides of aromatic carboxylic acids, photochemical double-stranded DNA cleavage agents with built-in selectivity to cancer cells, fundamental understanding of alkyne cyclizations, exergonic transformation of weak reductants into stronger reductants (“electron upconversion”), and design of unusually stable organic peroxides. Underlying much of this chemistry are Alabugin’s contributions to a deeper understanding of stereoelectronic effects.

Dr. Alabugin is the first recipient of all three FSU Undergraduate Awards: Teaching, Advising, and Research Mentor. His recent awards include the Markovnikov Medal, ACS Cope Scholar Award, AAAS and Fulbright Fellowships.

Award and Presentation (Organic Symposia): August 5th 5:15pm

As we have not been able to have FAME for the past couple years, we have also invited the previous 2 award winners to be acknowledged and present. We thank them for their time.

2021 FLORIDA AWARD



Prof. Jeffrey Johnson

Department of Chemistry

University of North Carolina Chapel Hill

Award and Presentation (Organic Symposia): August 6th 11:15am

2020 FLORIDA AWARD



Prof. Brian C. Benicewicz

Department of Chemistry

University of South Carolina

Award (PMSE/POLY): August 5th 8:30am

Presentation (PMSE/POLY): August 5th 3:15pm

The FLACS executive committee would like to acknowledge the Symposium Organizers without whom this program would not come together without.

<p>Additive Manufacturing & 3D Printing Dr. Subramanian Ramakrishnan FAMU-FSU College of Engineering & Dr. Tarik Dickens FAMU-FSU College of Engineering</p> <p>Computational Chemistry Dr. Shyam Kattel FAMU-FSU College of Engineering & Dr. Ramon Miranda Quintana University of Florida</p> <p>Inorganic Chemistry Dr. Keith Searles University of Florida</p> <p>Physical and Biophysical Chemistry Dr. Matt Eddy University of Florida</p>	<p>Biochemistry and Chemical Biology Dr. Jeffrey Rudolf University of Florida</p> <p>Chemical Education Dr. Katie Whitaker University of West Florida</p> <p>Electrochemistry Dr. Robert Lazenby Florida State University</p> <p>Mass Spectrometry Francisco Alberto Fernandez-Lima Florida International University</p> <p>Organic Chemistry Dr. Stephane Roche Florida Atlantic University</p> <p>PMSE/POLY and Materials Chemistry Sofia Goodrich University of Florida</p>
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MEETING AT A GLANCE

THURSDAY AFTERNOON August 4th

SESSION/EVENT		LOCATION
12:00-5:00	<i>Registration and check-in</i>	Stirling Hall Foyer
	Workshop A	Stirling E-F
1:30-3:30	Workshop B	Stirling B-C
BREAK		
5:30 – 7:30	Welcome Reception (<i>refreshments served</i>)	Stirling Hall Foyer
5:30 – 7:30	Poster Session I	Stirling Ballroom E&W
8:00 PM	Graduate Student Mixer (<i>refreshments served</i>)	Market Salamander Grille

FRIDAY MORNING August 5th

SESSION/EVENT		LOCATION
8:00 - 8:30	<i>Late Registration and Continental Breakfast</i>	Stirling Hall Foyer
8:30-8:45	2020 FL Award Winner Award (PMSE/POLY)	Stirling O-P
8:30 - 9:45	Additive Manufacturing A	Stirling D-E
	Biochemistry and Chemical Bio A	Stirling L-M
	Computational A	Stirling I-J
	Electrochemistry A	Stirling K
	Inorganic A	Stirling F
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
COFFEE BREAK		
10:15-11:45	Additive Manufacturing A	Stirling D-E
	Biochemistry and Chemical Bio A	Stirling L-M
	Computational A	Stirling I-J
	Electrochemistry A	Stirling K
	Inorganic A	Stirling F
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H

MEETING AT A GLANCE

	PMSE/POLY A	Stirling O-P
LUNCH BREAK ON YOUR OWN		

FRIDAY AFTERNOON August 5th		
	SESSION/EVENT	LOCATION
1:00-5:00	Poster viewing	Stirling Ballroom E&W
1:30-2:45	Additive Manufacturing A	Stirling D-E
	Biochemistry and Chemical Bio A	Stirling L-M
	Computational A	Stirling I-J
	Mass Spectroscopy A	Stirling K
	Inorganic A	Stirling F
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
COFFEE BREAK		
3:15-6:30	Additive Manufacturing A	Stirling D-E
	Biochemistry and Chemical Bio A	Stirling L-M
	Computational A	Stirling I-J
	Mass Spectroscopy A	Stirling K
	Inorganic A	Stirling F
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
3:15-4:15	2020 FL Award Winner Presentation (PMSE/POLY)	Stirling O-P
5:15-6:15	2022 FL Award Winner Presentation and Award (Organic)	Stirling B-C
DINNER ON YOUR OWN		
9:00	Faculty Mixer (<i>refreshments served</i>)	Packard's Patio

SATURDAY MORNING August 6th		
	SESSION/EVENT	LOCATION
8:00 - 8:30	<i>Late Registration and Continental Breakfast</i>	Stirling Hall Foyer
8:30 - 9:45	Biochemistry and Chemical Bio B	Stirling L-M
	Chemical Education A	Stirling K

MEETING AT A GLANCE

	Computational B	Stirling I-J
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
COFFEE BREAK		
10:15- 11:45	Biochemistry and Chemical Bio B	Stirling L-M
	Chemical Education A	Stirling K
	Computational B	Stirling I-J
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
LUNCH BREAK ON YOUR OWN		

SATURDAY MORNING August 6th		
SESSION/EVENT		LOCATION
8:00 - 8:30	<i>Late Registration and Continental Breakfast</i>	Stirling Hall Foyer
8:30 - 9:45	Biochemistry and Chemical Bio B	Stirling L-M
	Chemical Education A	Stirling K
	Computational B	Stirling I-J
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
COFFEE BREAK		
10:15- 11:45	Biochemistry and Chemical Bio B	Stirling L-M
	Chemical Education A	Stirling K
	Computational B	Stirling I-J
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
	Networking and Conversation	Stirling DE
11:15- 12:10	2021 FL Award Winner Presentation and Award (Organic)	Stirling B-C
LUNCH BREAK ON YOUR OWN		

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MEETING AT A GLANCE

SATURDAY AFTERNOON August 6th

SESSION/EVENT		LOCATION
1:00-5:00	Poster viewing	Stirling Ballroom E&W
1:30-2:45	Biochemistry and Chemical Bio B	Stirling L-M
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
	Networking and Conversation	Stirling I-J
	Networking and Conversation	Stirling DE
COFEE BREAK		
3:15-6:30	Biochemistry and Chemical Bio B	Stirling L-M
	Organic A	Stirling B-C
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
	Networking and Conversation	Stirling I-J
	Networking and Conversation	Stirling DE
5:30 – 7:30	Poster Reception (<i>refreshments served</i>)	Stirling Hall Foyer
5:30 – 7:30	Poster Session II	Stirling Ballroom E&W
END OF PROGRAM		
DINNER ON YOUR OWN		

TECHNICAL PROGRAM

THURSDAY, August 4TH – AFTERNOON

THURSDAY AFTERNOON: WORKSHOPS

SESSION/EVENT		LOCATION
1:00-5:00	Workshop A: Additive Manufacturing Sponsors: Dow 	Stirling E-F

Workshop B: Chemical Biology RCR Workshop – The Individual and the Team in Collaborative Chemical Science. Sponsors: The UF College of Liberal Arts and Sciences and the UF College of Pharmacy. 	Stirling B-C
1:30-3:30	

THURSDAY AFTERNOON: **POSTER SESSION I and RECEPTION** – STIRLING BALLROOM

Time	Title
5:30-7:30	POSTER SESSION I (see list of posters and presenters at the end of this program) Abstracts Available on the fl-acis site: https://fame2022.fl-acis.org/view/accepted-posters-list/

Friday, AUGUST 5TH – MORNING SESSIONS

Abstracts available on the fl-acis site: <https://fame2022.fl-acis.org/view/accepted-presentations/>

FRIDAY MORNING: **ADDITIVE MANUFACTURING A** – STIRLING D-E

Sponsors: DOW, NSF FAMU Crest Award # 1735968



Time	Presenter	Title
8:30	Daniel L. Dermody	Polyethylene-based Materials for Additive Manufacturing
8:55	Balaji Krishna Kumar	Additive Manufacturable Polyimide Vitrimer Nanocomposite
9:20	Kurt Koppi	Rheological characterization of 3D printable silicones
10:15	Andrei Fluerasu	Investigating Advanced Manufacturing Processes of Polymeric Materials with X-ray Scattering Techniques
10:40	John J. Bowen	Direct Ink Writing of Nanofeatured Ceramic Objects
11:05	Paul I. Deffenbaugh	Manufacturing High Performance Electronics Everywhere using Direct Digital Manufacturing

FRIDAY MORNING: **BIOCHEMISTRY AND CHEMICAL BIOLOGY A – STIRLING L-M**

Sponsors: University of Florida, University of Florida College of Liberal Arts and Sciences (CLAS), and Eppendorf.



Time	Presenter	Title
8:30	James Thornham	Imaging the transport biology of single HIV-1 complexes inside the nucleus
8:55	David H. Perez	ATP activates <i>C. elegans</i> acyl-CoA oxidase by increasing affinity for FAD cofactor
9:20	Sajan Green	Probing the substrate specificity of a diketopiperazine isomerase to expand natural product diversity
10:15	Zining Li	Unprecedented <i>trans</i> -eunicellane terpene synthase in bacteria
10:55	Annika Jagels	New myropeptides C-E from the fungus <i>Myrothecium inundatum</i>

FRIDAY MORNING: **COMPUTATIONAL A – STIRLING L-M**

Time	Presenter	Title
8:35	Daniel Lambrecht	Computational studies towards rational design and synthesis of functional materials: Reactivity of silyl ketenes and gas adsorption to Buckybowls
9:00	Moneesha Ravi	EOM-coupled-cluster theory with excited state reference wavefunction
9:20	Wei Yang	Understanding the Role of Large-Scale Protein dynamics in Protein Electrostatics
10:15	Tandabany Dinadayalane	Computational Study on Binding of α -Amino Acids Containing Rings with Graphene
10:40	Reza Esmaeeli	Searching for Low Probability Opening Events in a DNA Sliding Clamp
11:00	Arjan van der Vaart	Substrate rigidity modulates the efficiency of uracil-DNA glycosylase

FRIDAY MORNING: **ELECTROCHEMISTRY A – STIRLING K**

Time	Presenter	Title
8:30	Robert A. Lazenby	Assessing and rationalizing the electrocatalytic activity of bimetallic transition metal nanocarbides towards the oxygen evolution reaction
8:55	Muzmil M.N. Ahmed	Detection of Trace Amounts of Heavy Metals in Environmental Samples

9:20	Amanda J. Ritz	Optimization of electrodeposition of gold nanoparticles for tuning performance of electrochemical aptasensors
10:15	Noel Manring	Novel Insight to a Biocompatible Surface Modification for the Enhanced Detection of Cu ²⁺ using Fast Scan Cyclic Voltammetry
10:40	Debashis Sen	Selective aptamer modification of gold surfaces in a microelectrode sensor array for simultaneous detection of multiple analytes
11:05	Thomas T. Volta	Influence of Cation Character on the Permselectivity of Synthetic Nanotube Membranes

FRIDAY MORNING: **INORGANIC A** – STIRLING F

Time	Presenter	Title
8:30	Victoria Li	Magnetic Phase Boundary Mapping in the YFe ₆ Ge ₆ –YCo ₆ Ge ₆ System
8:50	Juan Felipe Torres Gonzalez	Lewis bases induced structural rearrangement in diiron complexes
9:10	Khoa Xuan Dang	The use of pyrazole and its derivatives in Mn-oxo cluster chemistry
9:30	Nermina Brljak	Using Multidomain Peptides to Probe Regiospecific Binding to Graphene and h-BN
10:15	Ian Campbell	Searching For Helimagnetic Ordering in Transition Metal Chalcogenides
10:35	Yu-Hsuan Shen	Synthesis and Characterization of Network Metallopolymers via iClick (Inorganic Click)
10:55	Randy W. Larsen	Modulation of Ruthenium (II) Tris-(2,2'-bipyridine) Photophysics through Cavity Size in Zn (II) and Zr (IV) Metal Organic Frameworks

FRIDAY MORNING: **ORGANIC A** – STIRLING B-C

Time	Presenter	Title
8:30	Alexander Adibekian	Chemoproteomic profiling with hypervalent iodine probes: From target identification to drug discovery
9:00	Withdrawn to Posters	Withdrawn to Posters
9:25	Alexis D. Richaud	Leveraging CH- π Interactions to Craft β -hairpin Mimics of Antibody Loops
10:20	Ajeet Kumar	Enhancing the self-assembling properties of <i>N</i> -centered [n.n]Paracyclophanes
10:45	Norito Takenaka	Lewis Base Catalysis of Organotrichlorosilanes
11:15	Xiaodong Michael Shi	Recent Advancement in Gold Redox Chemistry: New Transformations and Asymmetric Catalysis

FRIDAY MORNING: PHYSICAL AND BIOPHYSICAL A – STIRLING G-H

Time	Presenter	Title
8:45	Jianjun Pan	The N-terminal helices of amphiphysin and endophilin have different capabilities of membrane remodeling
9:15	Gail E. Fanucci	Spin Labeling Approaches for Cellular Glycans
10:15	Ashwanth C. Francis	Functionally characterizing HIV-1 infection by quantitative fluorescence imaging approaches
10:50	Ellen H. Kang	Counteractive effects of electrostatics and macromolecular crowding on actin bundle mechanics, organization, and secondary structure

FRIDAY MORNING: PMSE/POLY A – STIRLING O-P

Award Symposium in Honor of Dr. Brian C. Benicewicz 2020 Florida Award
Recipient

Time	Presenter	Title
8:30	2020 FL Award Brian C. Benicewicz	
8:45	Ken Wagener	Metathesis Polycondensation Chemistry: The ADMET Reaction
9:15	Yi Liao	Polymeric materials containing reversible photoacids
10:15	Austin M Evans	Atomically precise polymer sheets: controlled synthesis and electronic behavior
10:50	Justin G. Kennemur	Flexible and Periodic Phenylsulfonated Materials through ROMP: Synthesis, Transport, and Unique Assemblies

Friday, MAY 5TH – AFTERNOON SESSIONS

Abstracts available on the fl-acS site: <https://fame2022.fl-acS.org/view/accepted-presentations/>

FRIDAY AFTERNOON: ADDITIVE MANUFACTURING B – STIRLING

D-E

Sponsors: DOW, NSF FAMU Crest Award # 1735968



Time	Presenter	Title
1:30	Bobby Haney	Effects of Processing Conditions on the Macroscopic Properties of Cellulose Filled Hydrogel Scaffolds Using UV Rheology
1:55	Vignesh Subramaniam	Functional 3D Bioprinted Minimal Models of Tissues
2:20	Tyler Gregory	Towards Rapid Tissue Printing: Rheological Evaluation of Cell-Laden Alginate-Gelatin Hydrogels
3:15	Anesia Auguste	Human-robot interactions for the automation and application of speckle patterns for Digital Image Correlation
3:40	Md Alamgir Hossain	A high-performing strain gauge manufactured by 3D printing using a silver ink
4:05	Daniel L. Dermody	Advanced Polymer Materials for Additive Manufacturing
4:30	Sean Psulkowski	Adhesion Dynamics Under Time-Varying Deposition
4:55	John Thornton	Nanoscale surface characterization by Atomic Force Microscopy (AFM) techniques: Infrared Spectroscopy, Mechanical and Electrical methods

FRIDAY AFTERNOON: BIOCHEMISTRY AND CHEMICAL BIOLOGY B – STIRLING L-M

Sponsors: University of Florida, University of Florida College of Liberal Arts and Sciences (CLAS), and Eppendorf.



Time	Presenter	Title
1:30	Anuska Das	Structural and Biochemical Characterization of a Novel Methylation Sensitive Cas9
2:10	Piyush K. Jain	Discovery and engineering of CRISPR/Cas systems toward next-generation diagnostics

3:15	Huan Bao	Expanding the structure and function of nanodiscs
3:55	Cătălin Voiniciuc	The Matrix Redesigned: Building Plant Cell Wall Polysaccharides using Synthetic Biology

FRIDAY AFTERNOON: COMPUTATIONAL B – STIRLING I-J

Time	Presenter	Title
1:35	Orlando Acevedo	Machine Learning for Chemical Reactions in Solution
2:00	Arup Mondal	Structure determination of protein-peptide complexes from NMR chemical shift data using MELD
2:40	Ramon Miranda Quintana	Charge transfer processes in solution
3:15	Eugene DePrince	Ab initio cavity quantum electrodynamics
3:40	Pratiksha Balasaheb Gaikwad	Single Excitations in 1-Reference Geminal Coupled Cluster Wavefunctions: Taming Strong Correlation with Flexible Quasi-Particles
4:00	Shyam Kattel	Machine Learning Study of bulk and surface properties of alloys

FRIDAY AFTERNOON: INORGANIC B – STIRLING F

Time	Presenter	Title
1:30	Kenneth Hong Kit Lee	Development of a Magnetostructural Correlation for Polynuclear Mn ^{III} /oxo Clusters
1:50	Miguel Gakiya-Teruya	Design of Volatile Fe(II) Spin-Crossover Complexes
2:10	Ethan Fisher	Molecular nanoparticles of mixed-metal oxides: synthesis and characterization of high-nuclearity Ce/Ti-oxo clusters
2:30	Catherine J. Fabiano	Understanding the microwave synthesis and photophysics of WO _{3-x}
3:15	Rinku Yadav	REMP catalysts with unusual ancillary ligand
3:35	Milo Adams	Tuning properties of kagome ferromagnet Fe ₃ Sn ₂ by electron and hole doping
3:55	ChristiAnna Brantley	A Whole New World of Cobalt/Oxo Cluster Chemistry
4:15	Sanjay Kumar Devendhar Singh	One-Pot Synthesis and Characterization of Covalent Surface Modified 2D Ti ₃ C ₂ MXenes
4:35	Will R. Buratto	Activation of Small Molecules by a Dicobalt-di(μ -hydrido) Complex
4:55	Michael Shatruk	Influence of Covalency on Magnetic Exchange in Manganese Monochalcogenides

FRIDAY AFTERNOON: Mass Spectroscopy A – STIRLING K

Time	Presenter	Title
1:30	Kari B. Basso	Reinvention and validation of the sulfo-phospho-vanillin assay for sample normalization in quantitative lipidomic LC-MS/MS
2:00	Samuel A. Miller	Integration of Tandem UV-Photon and Mobility/Mass-Selected Electron Capture Dissociations for Top-Down Mass Spectrometry
2:25	Alexandra Keidel	Orbitrap mass spectrometry for the determination of stable isotopes in amino acids
3:15	Meiby Fernández-Rojas	Development of Top-Down Hydrogen Deuterium back Exchange Mass Spectrometry using Tandem Trapped Ion Mobility and Electron Capture Dissociations
3:40	Cassandra N. Fuller	Development of a bottom-up histone characterization method based on LC-TIMS-ToF-MS/MS.
4:05	Woo-Young Kang	Gas-phase intramolecular cross-linking of ubiquitin via ion/ion reactions as a tool to evaluate 3-D protein structures
4:30	Miguel Santos-Fernandez	Integration of Trapped Ion Mobility Spectrometry with Quadrupole Ion Traps
4:55	Nathan Grimes	Ultrasonic Vapor Modifier Nebulization for Enhanced Control of FAIMS-Mass Spectrometry

FRIDAY AFTERNOON: ORGANIC B – STIRLING B-C

Award Symposium in Honor of Dr. Igor V. Alabugin 2022 Florida Award Recipient

Time	Presenter	Title
1:30	Weijun Gui	Assembling of PROTACs by reversible biorthogonal reactions
1:55	Chaowei Hu	Radical alkyne peri-annulations terminated by C-O fragmentation: making oxidized polyaromatics without oxidation
2:20	Teng Yuan, Xiaodong Shi	Study on New Reactivity of Vinyl Gold and Its Sequential Transformations
3:20	Marc R. Knecht	Bio-inspired approaches for materials assembly to generate complex heterostructures
3:50	Kevin Little	Improved Synthesis of Clip-tag Substrates for Cellular Imaging
4:15	Brian Gold	Making it Click: Synthetic Tools for Multi-Stage Diversification

4:45	Arjan van der Vaart	Computer simulations of AApeptides
5:15	Igor V. Alabugin	Energy of chemical bonds as a driving force for organic reactions: molecular springs, stereoelectronic frustration, and electron upconversion
6:05	Dr. Igor Alabugin – 2022 Florida Award Winner	

FRIDAY AFTERNOON: PHYSICAL AND BIOPHYSICAL A – STIRLING G-H

Time	Presenter	Title
1:30	Daniel G. Isom, PhD	Informatics and engineering to build and study GPCR sensors and coincident signal detectors
2:05	Naveen Thakur	Endogenous Phospholipids Control Mechanisms of GPCR-G Protein Recognition
2:25	Deepika Regmi	Investigating the amyloidogenesis of fragment prion 106-128, membrane interaction, and the Inhibitory Effect of the polyphenols in prion diseases
3:15	Maria-Jose Ferrer	Hyperpolarized Metabolites Produced by Ultrasonic Spray Injection into Parahydrogen, Adiabatic Transport Through a Level Anticrossing, and Selective Coherence Transfer
3:40	Robert Silvers	Structure and Function of La-Related Proteins

FRIDAY AFTERNOON: PMSE/POLY A – STIRLING O-P

Time	Presenter	Title
1:30	Chuanbing Tang	Rational Design of Metallopolymer Anion-Exchange Membranes
3:15	Brian C. Benicewicz	Teaching an Old Dog New Tricks: New Developments in Polybenzimidazole (PBI) Membranes (2020 Florida Award Winner Presentation)

SATURDAY, MAY 6TH – MORNING SESSIONS

Abstracts available on the fl-acS site: <https://fame2022.fl-acS.org/view/accepted-presentations/>

SATURDAY MORNING: BIOCHEMISTRY AND CHEMICAL BIOLOGY C – STIRLING L-M

Sponsors: University of Florida, University of Florida College of Liberal Arts and Sciences (CLAS), and Eppendorf.



Time	Presenter	Title
8:30	John G. Ricca	The extracellular role of cyanopeptides studied with nanoscale secondary ion mass spectrometry
8:55	Samantha G. Martinusen	A high-throughput activity screen for reprogramming proteases (HARP).
9:20	Vicente Rubio	Rational design of fluorescent and solvatochromic cholesterol mimetics for imaging of intracellular cholesterol
10:15	Andrii Monastyrskyi	Chemical proteomics with fully functionalized fragment-like probes identifies the glutathione-dependent isomerase GSTZ1 as a lung cancer target
10:55	Jacqueline L. von Salm	Reimagining Psychoactive Natural Products: Drug discovery and development of subhallucinogenic tryptamines

SATURDAY MORNING: CHEMICAL EDUCATION A – STIRLING I-J

Time	Presenter	Title
8:30	Mrs. Matilynn Lam	Determining How Undergraduate Students Interpret and Communicate an Understanding of Visual Data Representation
8:55	Cameron Bechard	Student responses to a modified PISQ-5D survey: How undergraduate students in chemistry courses relate to being a future professional in their field
9:20	Ms. Barbara Chiu	Emergency Remote Teaching: Best Practices and Student Experiences
10:15	Ms. Barbara Chiu	Using the MATCH Model to Analyze Student Transcripts

10:40	Dr. Scott Wallen	A Sustainable, Systems Redesign of Undergraduate Laboratories Using a Circular Economy Paradigm
11:05	Miss Catalina Lopez-Castilla	Investigating gender bias in college general chemistry textbooks

SATURDAY MORNING: COMPUTATIONAL C – STIRLING I-J

Time	Presenter	Title
8:35	Prem Chapagain	Computational approach rises to the occasion: Tackling viral and bacterial diseases
9:00	Rugwed Lokhande	Hierarchical partition of Hilbert space based on excitation and seniority weightage
9:20	Shengli Zou	Effect of near field coupling among multiple emitters near a metal nanoparticle on their radiative decay rate enhancement
10:15	Mogus Mochena	Quantum Plasmonics of Few Electrons in Strongly Confined Doped Semiconducting Oxide: A DFT+U Study of ZnGaO
10:40	Michael Lynn	Bulk properties of Transition Metal Nitrides: A Density Functional Theory Study
11:00	Beauty Chabuka	Electron and Hole Catalysis via Reductant and Oxidant Upconversion: The Case of 1,2-disila-3,5-cyclohexadiene

SATURDAY MORNING: Organic C – STIRLING I-J
Award Symposium in Honor of Jeffrey S. Johnson 2021 Florida Award Recipient

Time	Presenter	Title
8:30	Jeanine Yacoub	Psychedelic-Inspired Drug Discovery to Treat Mental Health Disorders
8:55	Sean Chin Chan	Discovery and Design of a Novel ULK1/2 Inhibitor that Synergizes with the MEK1/2 Inhibitor to Promote Growth Inhibition in RAS-Driven Non-Small Cell Lung Cancer.
9:20	Nick Paciaroni	Expanding chemical space in DNA-encoded libraries: novel approaches for small molecule synthesis
10:15	Justin M. Lopchuk	New methods for the stereospecific installation of S(VI) groups in medicinal chemistry.
10:45	Alex Grenning	Contrathermal Cope Cope Rearrangements Through Theory, Design, and Experiment.

11:15	Jeffrey S. Johnson	Stereoconvergent synthesis with configurationally unstable compounds
12:05	Dr. Jeffrey Johnson – 2021 Florida Award Winner	

SATURDAY MORNING: PHYSICAL AND BIOPHYSICAL C – STIRLING G-H

Time	Presenter	Title
8:45	Yan-Yan Hu	NMR/MRI Studies of Ion Transport and Microstructure Formation in Solids
9:15	Brynna Jones	Observing Plastics in an Aqueous DOM Model System via ATR-FTIR
10:15	Cheyenne Sircher	Mechanical disruption of lipid vesicles for mass spectrometric analysis
10:50	Denisia M. Popolan-Vaida	Mechanistic insights into ozone assisted low-temperature oxidation reaction of trans-2-butene in a jet stirred reactor

SATURDAY MORNING: PMSE/POLY C – STIRLING O-P

Time	Presenter	Title
8:30	Ralm G. Ricarte	Generalized Rouse theory for modeling the linear viscoelastic behavior of unentangled vitrimer melts
9:00	Lily E. Diodati	Induction Processing and Improvement of Composite Vitrimer Flow through Integration of Fe ₃ O ₄ in Vitrimer Networks
9:25	Swagata Monda	Janus Crosslinks in Supramolecular Networks
10:15	Lakshitha A. Perera	Elucidating the Interactions between Ubiquitin and Conjugated DMAM-TEMPO Block-copolymers via Atomistic Molecular Dynamics Simulations
10:40	Brandon A. Fultz	Oppositely Charged Self-Assembled Block Copolymers: The Pursuit of Nano-Scale Charge Mosaics
11:05	Susan Walley	Synthesis and Analysis of Novel [2.2]Paracyclophane-based Star Polymers <i>via</i> Grafting-to Methodology

Continue the conversation and Networking

Stirling D-E

SATURDAY, MAY 6TH – AFTERNOON SESSIONS

Abstracts available on the fl-acS site: <https://fame2022.fl-acS.org/view/accepted-presentations/>

FRIDAY AFTERNOON: **BIOCHEMISTRY AND CHEMICAL BIOLOGY** **D – STIRLING L-M**

Sponsors: University of Florida, University of Florida College of Liberal Arts and Sciences (CLAS), and Eppendorf.



Time	Presenter	Title
1:30	Lawrence A. Stern	Endoplasmic reticulum sequestration empowers phosphorylation profiling on the yeast surface
2:10	Daniel M. Czyz	Drug Repurposing Screen for Anti-infectives Identifies Host and Pathogen-Targeting Compounds
3:15	Michelle A. Ehrenberger	Terpene Product Profiles of Spatadiene Synthase Homologues from Soil Bacteria
3:40	Madhushi N. Ratnayake	Nucleoside hydrolase QueK, salvage queuine in gut pathogen <i>Clostridioides difficile</i>
4:05	Andrew Steele	Harnessing a Large Microbial Strain Collection for the Discovery of Novel Chemistry and Biology

SATURDAY AFTERNOON: **ORGANIC D – STIRLING B-C**

Time	Presenter	Title
1:30	Jean-Hubert Olivier	Expanding the Toolbox to Modulate the Electronic Functions of Non-Covalent Assemblies
1:55	Brandon Nusser	Photophysical and Photochemical Properties of Fluorescent Triazoles
2:20	Chenhuan Wang	Achieving Olefin Metathesis at Elevated Temperature with Triazole Modified Grubbs Catalysts: Balanced reactivity and stability
3:15	Cheng-Yen Pan	Design and Synthesis of Rosette-Forming Donor-Acceptor π -Conjugated Molecules for Organic Solar Cells
3:45	V. Ramamurthy	Excited State Dynamics of Spatially Confined Organic Molecules

**SATURDAY AFTERNOON: PHYSICAL AND BIOPHYSICAL D –
STIRLING G-H**

Time	Presenter	Title
1:30	Bo Chen	Insight into the curvature control mechanism of the Rous sarcoma virus capsid protein assembly
2:05	Genesis Fernandez	Development of fluorescent naphthalimide-based membrane tension probes
2:25	Majedul Islam	Electrostatic interaction and polyelectrolyte complex-mediated aggregation modulation of novel fragment tau ₂₉₈₋₃₁₇
3:15	Michelle P. Lapak	A closed-loop continuous-flow system for parahydrogen enhanced hyperpolarization of metabolites via heterogeneous catalysis
3:40	Matthew Eddy	Investigating the Molecular Basis for Improving Protein Stability through PEGylation

SATURDAY AFTERNOON: PMSE/POLY D – STIRLING O-P

Time	Presenter	Title
1:30	Mason, Samaiyah	Synthesis and Characterization of Disulfonated Phenolphthalein and Phenolphthalin Poly (arylene ether sulfone) Copolymers with Sulfonic Acid Pendant Groups
1:55	Jordan L. Torgunrud	Entropy-driven depolymerization of natural and synthetic silicon-containing polymers
2:20	James Young	Photo-assisted Depolymerization: An Exploration into the Effect of Light on Various Terminal Iniferters for Reversion to Monomer
3:15	Kevin A. Stewart	High-Performance Bio-Based Polyimine Vitrimers and Linear Polymers from Pentafluoropyridine
3:40	Kadisha Culpepper	Synthesis and Characterization of Poly(Xylitol Sebacate)-Nanocrystalline Cellulose Blends for Nanoparticle Formation
4:05	Thomas E. Angelini	Leveraging Liquid-Liquid Phase Separation in Embedded 3D Printing of Soft Matter

Continue the conversation and Networking

Stirling I-J & Stirling D-E

SATURDAY AFTERNOON: POSTER SESSION II – STIRLING BALLROOM

Time	Title
5:30-7:30	(see list of posters and presenters at the end of this program) Abstracts Available on the fl-acis site: https://fame2022.fl-acis.org/view/accepted-posters-list/

POSTERS

Instructions for poster presenters:

- Posters should be no larger than 36”x48”. Poster boards, stands, and clips will be provided to mount your poster.
- Poster set up for SESSION I is Thursday from 2:00-5:00 pm. Each stand will have a number corresponding to your assigned number in the program. Posters from Session I must be removed on Friday between 2:00 and 4:00 pm.
- Poster set-up for SESSION II is Friday from 1:00-4:00 pm. Each stand will have a number corresponding to your assigned number in the program. Posters from Session II must be removed on Saturday after 7:00 pm.

POSTER SESSION 1			
THURSDAY 5:30 – 7:30 STIRLING BALLROOM			
No.	NAME	Topic	Title
1	Liu	Computational Chemistry	Design and benchmark a new computational pipeline to discover non-natural collagen binding motifs
2	Martinez Noa	Computational Chemistry	Calculation of thermodynamics and kinetics parameters of protein-peptide complexes using Peptide Gaussian accelerated Molecular Dynamics (Pep-GaMD) approach
3	Dotson	Computational Chemistry	Computational study of sumanene modifications for improved dihydrogen storage
4	Ben-Abdallah	Physical Chemistry	Development of Encapsulated Thermochromic Materials for Degradation Resistant Energy Efficient Coatings
5	Singh	Physical Chemistry	Incorporating parameter sampling in MELD to improve protein structure determination using semi-reliable data.

6	Li	Physical Chemistry	Hydrogen Bonding Compensation on the Convex Solvent Exposed Helical Face of IA ₃ , an Intrinsically Disordered Protein
7	Zhou	Physical Chemistry	Comparative Study of Cell Surface α 2,3- and α 2,6-Sialoglycans by Electron Paramagnetic Resonance (EPR) Spectroscopy
8	Ricca	Physical Chemistry	Isotope-edited Amide I in non-ribosomal oligopeptides and potential as a vibrational probe
9	Wolfe	Physical Chemistry	Spectroscopic Studies of Heme Proteins Mineralized in a Zeolitic Imidazole Framework
10	Naylon	Organic	Development of PD1 checkpoint covalent inhibitors targeting surface lysine residues
11	Salvatore	Organic	A Rapid and Efficient Method for the Reduction of Quinoxalines
12	Sakib	Organic	Potential New Synthetic Ketogenic Molecules: Ester Derivatives
13	Moncada	Organic	Synthesis and Self-Assembly of [3.3]Paracyclophane Urea and Carbamate Derivatives
14	Stearns	Organic	Self-Assembling Properties of Hybrid-Deck [2.2]Paracyclophane Derivatives
15	Dos Santos	Organic	De novo synthesis of non-symmetrical pyrenes through a photochemical cascade: diversion from the double Mallory path to a new photocyclization at the bay region
16	Giorgi	Inorganic	Bimetallic Late Transition Metal Complexes Supported by Bisdipyrromethane Ligand Scaffolds
17	Carnegie	Inorganic	Synthesis and characterization of In ₂ O ₃ /TiO ₂ photocatalyst by hydrothermal synthesis
18	Moffett	Inorganic	Synthesis, characterization, and hydrogen generation of Cu@Pt/TiO ₂ nanofiber photocatalyst
19	Johnson	Inorganic	Silica Supported Niobium Sites Tailored for Hydrocarbon Conversions
20	Koottanil Haridasan	Inorganic	Synthesis and Characterization of Bimetallic Bis-dipyrromethane Metal Complexes
21	Buratto	Inorganic	CO ₂ Reduction by a Diiron-di(μ -sulfido) Cyclophane Complex
22	Jen	Inorganic	Development of Molecule-Based 2D Magnets

23	Reed	Inorganic	Synthesis and Characterization of Tunable and Homogeneous Two-Dimensional Transition Metal Carbides and Borides for Device Applications
24	Łomowska-Keehner	Biochemistry / Chem Bio.	Investigation of <i>Streptomyces</i> natural product biosynthesis through heterologous expression
25	Khan	Biochemistry / Chem Bio.	Assignment of the Highly disorder Reflectin (Ref2C)4: A protein from the skin of Squid
26	Li	Biochemistry / Chem Bio.	Studies towards the elucidation of the biosynthetic mechanism of nemamide
27	Dulloo	Biochemistry / Chem Bio.	Cyclic Thiosulfonates as Improved Novel Anti-Cancer Agents: Structure-Activity Relationships & Formulation
28	Mulry	Biochemistry / Chem Bio.	Creating a Rational Approach to Site Specific Protein PEGylation
29	Kalia	Biochemistry / Chem Bio.	Dialuminum(III) complexes supported by a macrocyclic ligand
30	Gopal Pour	Biochemistry / Chem Bio.	Activation of the human A _{2A} adenosine receptor as viewed by single molecule fluorescence
31	Alter	Biochemistry / Chem Bio.	Assembly of nanoparticle-peptide vehicles for stem cell gene transfection.
32	Rivera (Leslie Marie)	Biochemistry / Chem Bio.	RNA Structural and Dynamic Studies of the Red Tide Dinoflagellate <i>Karenia Brevis</i> RNA Spliced Leader Sequence
33	Durham	Biochemistry / Chem Bio.	Modeling the Anatomy of Marine Turtle Hatchlings using Dragonfly
34	Rohlfing	PMSE/POLY	Synthesis and application of new reactive end-group polybenzimidazole oligomers for HT-thermosets
35	Korpusik	PMSE/POLY	Photocatalytic direct decarboxylation of carboxylic acids to derivatize or degrade polymers
36	Su	PMSE/POLY	From Citrus to Bioplastic
37	Perera	PMSE/POLY	Computationally Guided Experimental Efforts in Utilizing ATRP Initiator Cluster Formation to Elucidate ClbR Structure
38	Gomez	PMSE/POLY	Synthesis and Analysis of Novel [2.2]Paracyclophane-based Star Polymers via Grafting-from and Grafting-to Methodologies

39	Daugherty	Additive Manufacturing	Biofabrication and Rheological Characterization of Archaeal Hydrogels
40	Harrison	Additive Manufacturing	Examination of 3D Bioprinted Cell-Laden Alginate-based Hydrogels to Recapitulate Tumor Microenvironments
41	Grady	Additive Manufacturing	Fabrication of Crosslinkable Poly(arylene ether sulfone) Thin Film Composite Membranes by 3D Printing
42	Williams	Additive Manufacturing	Exploration of PI/Vitrimer Nanocomposites
43	Rede	Additive Manufacturing	Lightweight Composites: Effect of Shear on Alignment, Thermal Conductivity, and Macroscopic Properties of Functional Ink
44	Gregory	Additive Manufacturing	Rheological Characterization of Cell-Laden Alginate-Gelatin Hydrogels for Rapid 3D Tissue Printing
45	Hossain	Additive Manufacturing	A high-performing strain gauge manufactured by 3D printing using a silver ink
46	Germanton	Additive Manufacturing	Rheology and Ceramic Yield of Preceramic Polymer Grafted Nanoparticle Composites
47	Pellot	Additive Manufacturing	Understanding the Interface between Hybrid Materials and Architectures
48	Rivera	Additive Manufacturing	Magneto Assisted Printing Experiment

POSTER SESSION 2			
SATURDAY 5:00 – 7:00 STIRLING BALLROOM			
No.	NAME	Topic	Title
1	Bryan	Computational Chemistry	Computational studies of hydrogen binding to corannulene
2	Chabuka	Computational Chemistry	Electron and Hole Catalysis via Reductant and Oxidant Upconversion: The Case of 1,2-disila-3,5-cyclohexadiene
3	Velez	Computational Chemistry	Dimerization arm mutations drastically alter activity and oligomerization in Protein Arginine Methyltransferase 1
4	Demosthene	Physical Chemistry	Molecular basis for actin polymerization kinetics modulated by solution crowding

5	Douglas	Physical Chemistry	The Effects of pH on Gelsolin-Mediated Filament Assembly Kinetics and Severing Activities
6	Ray	Physical Chemistry	Role of Cholesterol as an Allosteric Modulator for Human A _{2A} Adenosine Receptor Conformational Dynamics
7	Chang	Physical Chemistry	How protein G, L and their mutants fold
8	Mondal	Physical Chemistry	Structure determination of protein-peptide complexes from NMR chemical shift data using MELD
9	Ivannikov	Physical Chemistry	Remediation of per- and polyfluoroalkyl substances in landfill leachate using solar photocatalysis
10	Salvatore	Organic	Cs ₂ CO ₃ -Promoted Efficient Synthesis of Diselenocarbamates and Diselenocarbonates
11	Salvatore	Organic	Cesium Effect: Novel Mechanistic Concepts and Synthetic Applications
12	Beck	Organic	Efficient synthesis of cyclopropylacetylene, a crucial synthetic intermediate for Efavirenz using chlorinating reagents (PCl ₅ and Ph ₃ PCl ₂)
13	Logue	Organic	Synthesis of Peptidomimetics as Potential Anticancer Agents and Biomedical Applications
14	Pandurangan	Organic	Development of novel Imidazo[1,2-b] pyridazine analogues as potent CDK12/CDK13 inhibitors
15	Liu	Organic	Covalent post-modification of isoG assembly for Cs ⁺ ionophore
16	Wei	Organic	Facile Synthesis of Diverse Hetero Polyaromatic Hydrocarbons (PAHs) via Styryl Diels-Alder Reaction of Conjugated Dienes
17	Tang	Organic	Design and Synthesis of Stable Four-Coordinated Benzotriazole-Borane with Tunable Fluorescence Emission
18	Das	Organic	The photoisomerization behavior of INCN-functionalized donor-acceptor molecules
19	Hyun	Organic	A New Synthetic Route to a Large Scale Terphenyl Pincer Ligand [OCO]H ₃ Synthesis

20	Nelsen	Organic	Electronically Driven Stereogenesis: Face Selection in the Reduction of Adamantanones
21	Bera	Inorganic	Subsite differentiated Fe ₄ S ₄ Clusters supported by a tri(phosphine) podand
22	Lorenzo Ocampo	Inorganic	Dialuminum(III) complexes supported by a macrocyclic ligand
23	Adams	Inorganic	Stabilization of vanadium ditelluride through iron intercalation
24	Bisht	Inorganic	Tetrameric Ln ₂ Fe ₂ Complexes (Ln = La, Tb) as Models of Coupled Molecular Spin Qubits
25	Adegboyega	Inorganic	Investigation of magnetic phase transitions in La _{1-x} Ce _x Co ₂ P ₂ (x ≤ 0.5)
26	Truong	Inorganic	Interrupted anion-network enhanced Li-ion conduction in Li _{3+y} PO ₄ I _y
27	Esper	Inorganic	Probing the Mechanism of Tungsten-Catalyzed Cyclic Polymer Synthesis
28	Panton	Biochemistry / Chem Bio.	Engineering Inhibitory Proteins using a Tethered Yeast Surface Display System
29	Hu	Biochemistry / Chem Bio.	Biochemical analysis of substrate and effector nucleotide functional groups involved in allosteric regulation of Type II ribonucleotide reductase
30	Slaton	Biochemistry / Chem Bio.	High-throughput protease reprogramming powered by a suite of integrative vectors
32	Legaspi	Biochemistry / Chem Bio.	Synthesis and Characterization of a Metalloenzyme Mimic
33	Chamberlain	Biochemistry / Chem Bio.	Rapid kinetic analysis of Escherichia coli RNase P active site interactions using minimal substrate containing an intrinsic fluorescent probe
34	Wei	Biochemistry / Chem Bio.	Mutation of the eunicellane synthase Bnd4 alters its product profile and expands its prenylation ability
35	Ning	Biochemistry / Chem Bio.	Functional characterization of polyprenyl synthases and bioinformatic analysis to predict terpene scaffold size
36	Konar	PMSE/POLY	Cyclic Poly(4-ethynylphenylboronate ester): Efficient Catalytic Synthesis of Functionalized Cyclic Polymers and Gels

37	Jang	PMSE/POLY	Design and Synthesis of Polypentenamer-Based Bottlebrush Architectures
38	Ruzicka	PMSE/POLY	Utilizing DOSY NMR for determination of polymer molecular weights
39	Lott	PMSE/POLY	Inverse miniemulsion photoiniferter polymerization
40	Grumbles	PMSE/POLY	Single-ion conducting polymer electrolyte with unique 5 carbon spacing architecture for high performance lithium ion batteries
41	Hughes	PMSE/POLY	High internal-phase emulsion foams for streamlined purification of macromolecular click products
42	Hennick	Analytical Chemistry	Determination of caffeine in coffee by varying roast
43	Harper	Analytical Chemistry	Lunar Basil: An Analysis of Basil by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) and Solid-Phase Microextraction (SPME) to Gas Chromatography Mass Spectrometry (GC-MS)
44	Shi	Analytical Chemistry	Development of nanoplasmonic probes for highly sensitive biomarker detection
45	Wen	Analytical Chemistry	Topographic modulation of enzymatic reaction affords ultrasensitive compartment-free digital phenotyping of tumor-derived exosomes
46	Lam	Chemistry Education	Key Stakeholders' Interpretations of Scientific Information Literacy: A Survey of Orange and Seminole County K-16 Educators
47	Miccolis	Chemistry Education	Pedagogical Approach to the Simultaneous Analysis of Acetaminophen and Caffeine in Analgesics
48	Laboy Santana	Chemistry Education	Is anybody reading this? A systematic review of LGBTQ+ STEM literature
49	Muhammed	Electrochemistry	Using multifunctional nanoscale pH-sensitive probes to measure topography and proton concentration at biological and non-biological entities

50	Wolfer	Environmental	Oxidative Effects of Secondary Organic Aerosols by Mass Spectrometry and Electron Paramagnetic Resonance Methods
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**Thank you
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