

CERM-FSM2025

THURSDAY AFTERNOON

Bovee University Center
Rotunda

General Posters 1: Thursday Posters 1-41

B. Swarts, A. Mueller, J. Tomasik, J. Etienne *Organizers*

4:00 - 6:00

- 01.** Determining activation energy of a reaction: Aspartame hydrolysis. **K. Holt**
- 02.** Biocatalytic Aza-Michael addition of aromatic amines to enone using α -amylase in water. **S. DUTT**
- 03.** Multi-ion species and non-Innocent counterions emerging in anion recognition. **A. Morgan**, A.H. Flood
- 04.** Cross carbonyl-olefin metathesis (XCOM) of unactivated olefins. **J. Wu**, M. Vargas-Penalver, T.H. Lambert
- 05.** Ag(I)/K₂S₂O₈-mediated selective oxidation of ynamide-yne via structural reshuffling and consecutive N-desulfonylation. **M. Mutra**, C. T.L, T. Wang, J. Wang
- 07.** Evaluating *ortho* and *para*-ethylaniline as reactants in the synthesis of imines for a course-based undergraduate research experience. **D. Baker**
- 08.** Optimizing the synthesis of an imine as a course-based undergraduate research experience (CURE). **D. Baker**, m. Haswell
- 09.** Development of dry, thermally stable, proton exchange membranes for high temperature hydrogen fuel cell. M. Curry, **P. Knipe**, G. Mehl, S. Samaranayake
- 10.** Influence of π - π interaction on adsorption of caffeine in aqueous solution using novel porous copolymer resin. **A. Balogun**, M. Itzel, A. Mueller, B.D. Fahlman, E. Anang
- 12.** β -lactones as an emerging Antimicrobial Scaffold: *para*-Substituents Modulate Activity. **M.V. Coote**, E. Yantz
- 13.** Developing and optimizing bioluminescent neurotransmitter sensors and neurotransmitter dependent neuromodulators. **K. Taylor**, H. Galvin, E. Petersen

14. Computational Modeling of 1-Carbon (1-C) Metabolism to Analyze Mitochondrial 1-C Flux. **X. Luarasi**

15. G4 70/30 PAMAM Dendrimer-Mediated Co-Delivery of KIF23 and KIF18A siRNAs for Glioblastoma Treatment. **N. Allahyarzadeh Khiabani**, O. Dubey, A. Poudel, M. Singh, R. Petersen, D. Swanson, G. Dunbar, J. Rossignol

17. Low temperature molecular spin decoherence dynamics using Lindblad master equation method. **K.E. Coffin**, T.J. Krogmeier, A.W. Schlimgen, K. Head-Marsden

18. Development and Characterization of Metal-Chitosan Composites as Sustainable Alternative Materials. **A. Manamperi**, K. Garrison, L. Wang, A. Zand, D. Kirtek, S. Zhang

19. Removal of gemfibrozil from wastewater using new polymer resins. **T. Pema**, A. Mueller, M. Itzel, B.D. Fahlman

20. Structure-Based Identification of High-Affinity scFv Antibody Targeting YKL-40 as a Biomarker for Early Alzheimer's Disease Detection. **D. Rajan**, **G. Sharma**

21. Photodegradation contaminants of emerging concern in aquatic environments, using carbon-based materials. **P. Anamanya**

22. Identifying unique structures in metal polysulfide clusters: A workflow for degeneracy and redundancy analysis. **B. Traver**, V. Barone

23. Synthesis of 5-Methyl-3-phenylbenzo[e][1,2,4]triazine and Its o-Nitrophenyl Benzohydrazide Precursor: Positional Control of Crystal Packing in Blatter Radical Precursors. **J. Yi**, H. Dakdouk, A. Mukherji, S. Marincean, C.P. Constantinides

24. Energy landscape of Li-, Na-, and K-polysulfides: A DFT-based study. B. Traver, **Z. Hinojosa**, M. Singh, V. Barone

25. Structure-property relationship of alkyne-bridged D-A-D Thienothiadiazole-based dyes with tunable donor substituents. **Q. Ain**, D.L. Watkins

26. ElectronJump: A free online game for learning electronic structure and quantum principles. **C.J. Hover**

27. SYNTHESIS OF POLYMER NANOPARTICLES BY INVERSE EMULSION POLYMERIZATION WITH g-C₃N₄. **E. Cofie**, A. Mueller, B.D. Fahlman, M. Itzel, G. Johnson

28. Wastewater Treatment and Polymer Degradation: Role of Catalyst in Advanced Oxidation Processes. **S. Aduwa**

29. Exploring Polymer Dynamics for Hydrogen Fuel Cells Using Molecular Simulations. **S. Ganta**, **T. Alim**, L. Rakesh, A. Mueller, A. Mellinger

30. Synthesis and characterization of zwitterionic polymers for conductivity studies using RAFT polymerization. **A. Puthiyarakkal**, D.L. Watkins
32. Characterization of a new cholesterol-dependent pore-forming toxin from a plant species. **L. Sheppard**, O. Hohman, L. Gasco, R. Patial, P. Bandyopadhyay, T.K. Dam
33. Discovery of a new plant protein that interacts with the glycan epitopes of fungal and viral antigens. **O. Hohman**, R. Patial, L. Sheppard, P. Bandyopadhyay, T.K. Dam
34. Design and Evaluation of 3D-Printed HPMC-Based Lattice Structures for Controlled Ibuprofen Release. **K. Desai**, **M. Lee**, **R. Wang**
35. Rheological Insights into Ultrasound Gels. **B. Wilcox**, T. Nguyen
36. Rheology Reveals the Power of Silver-Infused Aloe Gel in Modern Skincare. **T. Nguyen**
38. Catalytic Glucose Oxidation for Bacterial Growth Inhibition. **F. Farhana**
39. Single-molecule CISS-controlled electrochemical catalysis. **A. Adeyemi**, B. Pokhrel, H. Shen
40. Do Bees Trade Pollen Secrets? Analysis of Bee Pollen by Light Microscopy. **S. Fan**, K. Simons
41. Experimental Measurements on Magnetic Fe Atoms Embedded in Carbon Nitride. **C. Chavez**, J. Pandey, V. Petkov, V. Barone, B. Fahlman