



Mississippi Local Section 2025 Annual Awards Banquet

Thursday, November 13th

4:00-7:30 PM

Mississippi College

Anderson Hall

Clinton, MS 39058

ms.section.acs@gmail.com

<https://mississippiacs.org>

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Program

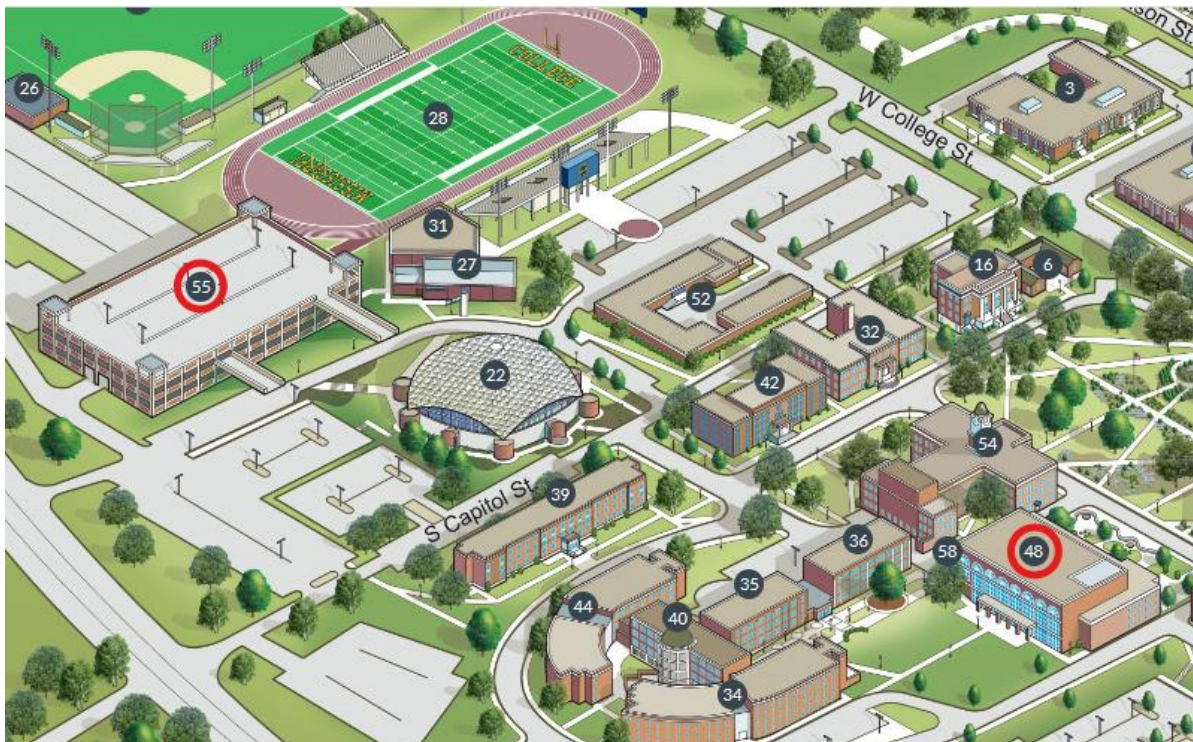
4:00 PM	Poster Session
5:30 PM	Dinner
6:15 PM	Welcome and Opening Remarks <i>Hugh Broome, 2025 Chair MS LS ACS</i> <i>University of Southern Mississippi</i> <i>Mike Highfield, Provost & Executive Vice President</i> <i>Mississippi College</i>
6:20 PM	Keynote Speaker <i>David H. Magers</i> <i>2024 MS LS ACS Chemist of the Year</i>
7:15 PM	Award Announcements

2025 Mississippi Local Section Officers

- Chair, Hugh Broome of the University of Southern Mississippi
- Past-Chair, Mine G. Ucak-Astarlioglu of US Army Engineer Research and Development Center
- Chair-Elect, Karina Kapusta of Tougaloo College
- Secretary, Shelley A. Smith of Belhaven University
- Treasurer, David Magers of Mississippi College
- Councilor, Joseph Emerson of Mississippi State University
- Alternate Councilor, Brandon Magers of Belhaven University

Travel Information and Event Location

The banquet is being held in Anderson Hall on 2nd floor of the BC Rogers Student Center on the campus of Mississippi College. Attendees to the banquet can park free of charge in the parking garage on the west side of the coliseum. At the following link, B.C. Rogers is building 48, and the parking garage is building 55. <https://www.mc.edu/visit/map#rogers>



Keynote Speaker

David H. Magers, Ph.D.

Mississippi College
Department of Chemistry &
Biochemistry

Professor of Chemistry &
Chemical Physics

2024 Chemist of the Year



Dr. David Magers is a Professor of Chemistry and Chemical Physics in the Department of Chemistry & Biochemistry at Mississippi College (MC), where he has taught since 1989. He earned his Ph.D. from the Quantum Theory Project at the University of Florida under Rod Bartlett and was a postdoctoral researcher at Harvard University, where he worked with Nobel Laureate William Lipscomb. His areas of expertise include quantum chemistry, molecular electronic structure and spectra, many-body theory, and ab initio many-body methods. He is especially interested in using model reactions to compute accurate enthalpies of formation and to determine conventional strain energies of small cyclic systems. MC named Dr. Magers the 2003 Distinguished Faculty Lecturer of the College of Arts and Sciences, and in 2005, he was awarded Distinguished Professor of the Year for the university. He has over 40 publications and delivered 50 invited lectures, but his primary focus has been directing his students to present. Currently, the 144 students who have been part of his Computational Chemistry Group have delivered over 745 poster or oral presentations. In addition to being named 2024 Chemist of the Year by the Mississippi Section of the American Chemical Society, he was also awarded the 2024 Outstanding Contribution to Science Award by the Mississippi Academy of Sciences (MAS), the highest annual award the MAS gives.

2025 Award Recipients

Chemist of the Year

Dr. Vijay Rangachari

T.W. Bennett Distinguished Professor

Director, Center for Molecular and

Cellular Biosciences

University of Southern Mississippi



High School Teacher of the Year

Jamie Sorrell

Biology Teacher

Sumrall High School

Sumrall, MS



Johnnie-Marie Whitfield
Service Award

Dr. Brandon Magers

Professor of Chemistry

Chair, Dept. of Chemistry & Physics

Faculty Fellow of Instructional
Technology

Chair, Mississippi Emerging Research Institution Council

Chair, SURC Board of Directors

Belhaven University



Student Chapter of the Year

ACS Student Chapter

Belhaven University

The logo for Belhaven University, consisting of the letters 'BU' in a large, green, serif font.

Undergraduate Posters

- U1. A Sustainable Method for Synthesizing Nitrosodiphenylamine, Reagan Nichols, *Belhaven University*
- U2. Analysis of Aquatic Ecosystems at Choctaw Trails Reveals Environmental Contaminants, Alena Trotter, *Mississippi College*
- U3. Analysis of Sun Hemp and Passion Flower Plants Using GCMS, Forrest Aby, *Mississippi College*
- U4. Calculation of Conventional Strain Energies of Small Heterocycles of Carbon and Silicon by Model Reactions, Cedell Hendricks V, *Mississippi College*
- U5. Computational Studies of the Relative Thermodynamic Energetics of Warfarin Tautomers, Ashley Davidson and Jeremiah Theisen, *Belhaven University*
- U6. Conventional strain energies of thiasilirane and the thiasiletanes, Avery C. Foret, *Mississippi College*
- U7. Conventional Strain Energies of Thiirane, Thietane, Borylthiirane, 2-Borylthietane, and 3-Borylthietane, Sarah G. Murley, *Mississippi College*
- U8. Developing an interactive cloud-based learning module for vibrational energy calculations in molecules using Jupyter notebooks for the National Institutes of Health, Erick Manriquez, *Delta State University*
- U9. Do Stable Hydrogen Bridge Bonds Form between Boron and Silicon?, Anna Kathryn Mullen, *Mississippi College*
- U10. Enthalpies of formation of chloro, cyano, and methyl derivatives of heterocyclic aromatics by homodesmotic reactions, Emily M. Huff, *Mississippi College*

- U11. Evidence of Zoonotic Nematode *Contraecum Jorgei* in Central Mississippi and Throughout the USA**, Christina Raley, *Mississippi College*
- U12. Exploring MAP2 as a Potential Biomarker for Postoperative Delirium**, Anna Toombs, Occam Kelly Graves, Christopher Simon, Oluwaseun Akeju, and Tina B. McKay, *Tougaloo College*
- U13. GCMS Analysis of Cannabidiol Vape Reveals Human Health Concerns**, Catalina McCoy, *Mississippi College*
- U14. GCMS Analysis of Milkweed Plants Reveals Toxic Cardiac Glycoside Synthesis Pathway**, Jady Davis, *Mississippi College*
- U15. Mechanistic Insights into Cobalt(II) Complexes as Potential Drugs for African Sleeping Sickness**, Anna L. Petrosyan, *Tougaloo College and St. Andrew's Episcopal School*
- U16. Mechanochemical Synthesis of Nitrosamines for Risk Reduction**, Lauren Kenas and Madison Beam, *Belhaven University*
- U17. Metal Phenolic Network Protection Against Environmental Stressors**, Darren Stevens, Grace Anderson, and Ariel Furst, *Tougaloo College*
- U18. Natural Therapeutics Targeting Alpha-Synuclein Aggregation in Parkinson's Disease**, Ca'Lajasia C. Robinson, Tony Nyabayo, Tuhina Banerjee, and Karina Kapusta, *Tougaloo College*
- U19. No Ifs, Ands, or Bucks About It: Sniffing Out Volatile Semiochemicals in Deer Glands**, Ella Goolsby, *Mississippi College*
- U20. Polymer-Based siRNA Nano-Carriers for Targeting Tumor Suppressor Gene: Computational Design**, Victoria L. Petrosyan, *Tougaloo College and St. Andrew's Episcopal School*
- U21. Real-Time Detection of Xylazine Using Organic Electrochemical Transistors**, Natasja Bechtold, *Belhaven University*

- U22. Root of the Problem: Cassava in Gluten-Free Foods**, Annaleigh Bain, *Mississippi College*
- U23. Saponins as Potential Modulators of Pancreatic Lipase: Computational Approach Supporting Experimental Findings**, Ta'Miyia S. Tobias, Karina Kapusta, Zbigniew Sroka, and Wojciech Kolodziejczyk, *Tougaloo College and Jackson State University*
- U24. Sarcospan in Adipose Biology**, Peyton C. Bevan, *Delta State University*
- U25. Structures, Energetics, and Non-Covalent Interactions of Nitrosamine Dimers**, Todd Goudeau and Sam Sackett, *Belhaven University*
- U26. Testing of Manmade Chemicals on Mississippi Delta Plants in Bolivar County, Mississippi**, Donald L. Coleman, *Delta State University*
- U27. The Effect of Sarcospan (SSPN) Knockout on Adipocyte Differentiation in 3T3-L1 Cells**, Layan R. Asmar, *Delta State University*
- U28. Validating CMA colonization plus sensitization induces tuft cell hyperplasia in a SPF mouse model**, John Clay Hong, *Delta State University*

Graduate Posters

- G1. **Berry Delicious, Chemically Suspicious: Pesticide Residues Raise Human Health Concerns**, Selah Roberts, *Mississippi College*
- G2. **Development of An Organocatalyzed Nucleophilic Addition of Masked Acyl Cyanides to Azomethine Imines**, Francis Klenam Kekessie, *University of Southern Mississippi*
- G3. **Enhanced Magnetic Hyperthermia Efficiency of Iron Oxide Nanoflowers Synthesized via a Simple Co-precipitation Method**, Bosede Kolawole, Qinku Zhang, Usha Grewal, and Yongfeng Zhao, *Jackson State University*
- G4. **Enthalpies of formation of amino and nitro derivatives of benzene and toluene by homodesmotic reactions**, Swizel Fernandes, *Mississippi College*
- G5. **Multifunctional Nanoplatfoms for Detecting Therapy-Resistant TNBC Exosomes**, Olorunsola Kolawole, *Jackson State University*
- G6. **Plasmon-Enhanced Fluorescence Nanoplatform for Determining of Antibiotic Susceptibility against Superbugs using Doxycycline-Decorated Silver Nanoparticle**, Shivangee Rai, *Jackson State University*