Mississippi Local Section 2021 Annual Awards Banquet in 2022

Friday, February 18th

5:00-8:30 PM

FBC Warehouse

210 S Jackson St

Starkville, MS

ms.section.acs@gmail.com

https://mississippiacs.org

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Program

Friday, February 18th

5:00-6:30 pm	Poster Session
6:15 pm	Dinner
7:00 pm	Tribute to Debbie Saebo
7:10 pm	Keynote Speaker
7:45 pm	Award Announcements

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Keynote Speaker

Todd Mlsna, Ph.D.

Mississippi State University

Professor

2020 Chemist of the Year

Todd E. Mlsna is a Professor in the Mississippi State University Chemistry Department where he teaches Analytical and Environmental Chemistry. His bachelor's degree is from Albion College (Albion, Michigan) and his Ph.D. from the University of Texas (Austin, Texas). His graduate work focused on synthetic organic fluorine chemistry, as did his postdoctoral work at Clemson University. From 1994 to 1998 he worked at the Naval Research Laboratory (NRL), Washington, D.C., on the development of absorbent polymer-film- based chemical sensors. In February 2003, Dr. Mlsna founded Seacoast Science, a private chemical sensor company, and served as president for 6 years before becoming chairman of the board. He joined the chemistry faculty at Mississippi State University in 2009. His current research is focused on water remediation and soil amendment using byproducts from the biofuel generation industry.

Award Recipients

Chemist of the Year

Julie Pigza, Ph.D.

University of Southern Mississippi

Dr. Julie Pigza earned her Ph.D. from Indiana University and completed a postdoc at UC San Diego before starting her independent career at Queensborough Community College in Bayside, NY. In 2013, she moved to the University of Southern Mississippi where she is currently an Associate Professor of Chemistry.

High School Teacher of the Year

Sarah Holder

East Marion High School

Sarah Holder has BS in Biology from the University of South Alabama and an MA in Teaching from The University of Southern Mississippi. She teaches Chemistry, Human A&P, and Zoology at East Marion High School. She is also the Assistant Director of Performing Arts and the National Honor Society advisor.

Student Chapter of the Year

Mississippi College

The MC chapter won its seventh consecutive "Outstanding" ACS Student Chapter Award this year. The chapter held a total of 94 events and chapter members had 24 research presentations at scientific meetings. For community outreach, chemistry demonstrations were done mostly at open-air markets and high school tutoring sessions were held virtually. The chapter's most successful fundraising event included growing a garden and selling the produce at the local farmers market during the summer, which raised over $5000.

Undergraduate Posters

1. **A New Extraction and Quantification Method to Detect Polystyrene Plastics in Biological and Environmental Samples**

   Claire Stokes

   Mississippi College

2. **Ab Initio Analysis of Polarizability in Molecular Piezoelectric Response for Organic Dimer Systems**

   David Zetterholm

   Mississippi College

3. **Adapted qRT-PCR Protocol for Campus-Wide Asymptomatic COVID-19 Screening on Undergraduate Campus**

   Karlee McKinney

   Belhaven University

4. **Adsorption of hexafluoropropylene oxide dimer acid (HFPO-DA) (Generation X) using commercial Douglas fir Biochar**

   Emily Chandler, Chanaka Navarathna, Prashan Rodrigo, Sarah Jessica McClain, Charles U. Pittman Jr. and Todd Mlsna

   Mississippi State University

5. **Adsorption of Phosphates onto Layered Double Hydroxide Impregnated Douglas fir Biochar**

   Michael Walker

   Mississippi State University

6. **Campus-wide COVID Screening provides Non-Traditional Clinical and Laboratory Experiences for Students During Pandemic**

   Rebecca Ayres and D'Onna Manning

   Belhaven University

7. **Chemical Analysis and Biotoxicity Assessment of Plastic Bioremediation Using Tenebrio molitor Larvae**

   Lillian Sisson

   Mississippi College

8. **Conventional Strain Energies of Cyclopropylborane, Borirane, Boretane, the Diboretanes, Borolane, the Diborolanes, Borinane, and the Diborinanes**

   Kaylee Hood

   Mississippi College

9. **Conventional Strain Energies of Thiaziridine and the Thiazetidines**

   Joshua Gramm

   Mississippi College

10. **Development and Testing of Forensic Chemistry Sensors to Detect Decaying Remains and Pinpoint Crime Scene Locations**

    Whitney Schuler

    Mississippi College

11. **Enthalpies of Formation of Quinoline Derivatives by Homodesmotic Reactions**

    Caitlin McCormick

    Mississippi College

12. **Investigation of Quinolines as HIV-Integrase Inhibitors**

    Jack M. Patterson

    University of Southern Mississippi

13. **Investigation of the Acid-Catalyzed Pictet-Spengler Cyclization with Sulfonamides**

    Kaitlyn Birkhoff

    University of Southern Mississippi

14. **Lead immobilization in simulated polluted soil by Douglas for bio char-supported phosphate**

    Sabrina Solomon

    Mississippi State University

15. **Pharmaceutical Drug Ligand Binding to Serum Albumin with Quantum Chemical Methods**

    James Baker

    Belhaven University

16. **Prediction of chiroptical spectroscopic properties of chiral beta-lactone heteroaromatics by time-dependent density functional theory**

    Olivia Haney

    Belhaven University

17. **Preparation of macrocyclic polyphenylethynylarene ethers**

    Bailey Steen

    Mississippi College

18. **Regioselectivity of Acid-Catalyzed Epoxide Ring-Opening Reactions**

    Breana Chastang

    Mississippi College

19. **Relative Stabilities of Derivatives of 9-Methylanthracene and 9-Methylene-9,10-Dihydroanthracene and Derivatives of 6-Methylpentacene and 6-Methylene-6,13-Dihydropentacene**

    Emily Sullivan

    Mississippi College

20. **Remediation of Aqueous Uranium(VI) from Magnetic (Fe_3O_4) Douglas fir Biochar**

    Bryce Bolden

    Mississippi State University

21. **Removal of As(V) using zero valent ion/douglas biochar**

    Kristina Pedersen

    Mississippi State University

22. **Simultaneous Sorption of Multioxyanion (PO_4^{3-}, AsO_4^{3-}, SeO_4^{2-}, CrO_4^{2-}) using Magnetic Douglas fir Biochar**

    Kate Smallwood

    Mississippi State University

23. **Sorption of As (V) using Fe_3NO_4 Nanoparticles Dispersed on Douglas fir Biochar**

    Audrina Johnson

    Mississippi State University

24. **Sorption of Low to Moderate Concentrations of Aqueous PFOS and PFOA ("Forever Chemicals") using Douglas fir Biochar Variants**

    Sarah Hossain

    Mississippi State University

25. **Sorptive Removal of SeO_4^{2-}/SeO_3^{2-} using Douglas fir Biochar Metal Oxides/Hydroxides Nanocomposites**

    Arissa Ramirez

    Mississippi State University

26. **Spartan18 QSAR Analysis of Ebselen-Type Heterocycles for the Inhibition of SARS-CoV-2**

    Damien Cooper

    University of Southern Mississippi

27. **Synthesis of macrocyclic diaminopolyphenylethynylarenes**

    Megan Stewart

    Mississippi College

28. **The Analysis of Microplastics and Perfluoroalkyl Substance (PFAS) in Marine Animal Tissues**

    Katherine Lape

    Mississippi State University

29. **Title not submitted**

    Jessie Tisdale

    Mississippi State University

Graduate Posters

1. **Catalytic Hydroborylative Coupling of Allenes for Chemo-, Regio- and Stereoselective Synthesis of Tetrasubstituted 1,3-Dienes Compounds**

   Abdullah

   Mississippi State University

2. **Contribution of modified P-enriched biochar to acid soil's pH buffering capacity**

   Oluwafemi Awolesi

   Mississippi State University

3. **Conventional Strain Energies of Three-Membered Heterocycles**

   Ryan Ivey

   Mississippi College

4. **Electrophile Initiated Cyclization of Chiral, Non-racemic Homoallylic N-tert-Butanesulfonyl Carbamates and Bis-Boc Guanidines**

   Gavin Rusitn

   University of Southern Mississippi

5. **Iron/titanium oxide-biochar (Fe_2TiO_5/BC): versatile adsorbent/photocatalyst for aqueous PO_4^{3-}, AsO_4^{3-}, Cu_2^{+}, UO_2^{2+} and Methylene Blue (MB)**

   Olalekan Olabode

   Mississippi State University

6. **Mass Spectrometry of Beta-2 Agonists**

   Matthew Carlo

   Mississippi State University

7. **Polyaniline based on Phenoxazine and Carbazole Derivatives with improved electrochemical stability and processability.**

   Mohammed Almtiri

   Mississippi State University

8. **Quantification of Materials Light Absorption and Scattering Extinction using Integrating-Sphere-Assisted Resonance Synchronous Spectroscopy**

   Pathum D. Wathudura

   Mississippi State University

9. **Ru(II)-Catalyzed Transient Directing Group Assisted Intramolecular C–H Activation of Indole**

   D.M Nirosh Udayanga

   Mississippi State University

10. **Synthesis of Semi-Fluorinated Polyaryl Ethers via Friedel-Crafts Polymerization**

    Gustavo Munoz

    Mississippi State University

11. **Temperature-Dependent Total Photoluminescence Spectroscopy as an Extraordinarily Informative Measurement Technique for Studying the Temperature Effects on Materials Photophysical Properties**

    Max Wamsley

    Mississippi State University