

CURRICULUM VITAE: Andrienne Claire Friedli

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Educational Background

Ph.D. Organic Chemistry, 1992, University of Texas at Austin, Austin, Texas

M.S. Organic Chemistry, 1986, Yale University, New Haven, Connecticut

B. A. Chemistry, 1984, Rice University, Houston, Texas

Positions

2005-present Office of Research: Special Projects, Director of Center for Advancement of Research and Scholarship; Assistant to Vice Provost for Research

2008-present Director of Undergraduate Research Center

2005-present Professor, Department of Chemistry, Middle Tennessee State University

1998-2005 Associate Professor, Department of Chemistry, MTSU

1993-1998 Assistant Professor, Department of Chemistry, MTSU

1993-2003 Adjoint Professor, Department of Chemistry, Vanderbilt University

1992-1993 Postdoctoral Fellow, Beckman Institute, California Institute of Tech. Pasadena, California

5/94-8/94 American Society for Engineering Education Visiting Summer

5/95-8/95 Faculty, Naval Research Laboratory, Washington, D.C.

Intellectual Property Management Experience

Intellectual Property Manager, MTSU (2006- present)

Director of Innovation and Commercialization (2016)

- Guided faculty members to disclose or develop IP or helped them find TT services.
- Generated and stored records on disclosures, patents, licensing, contracts.
- Chose members of the Intellectual Property Advisory Committee (IPAC); organized and Chaired meetings of the IPAC; led efforts to write policy and procedure for IP at MTSU with IPAC.
- Coordinated with TBR Counsel for IP about patents and contracts.
- Designed and assembled forms, information for IP and commercialization website.
- Organized outreach events: seminars by Technology Transfer professionals, Global Entrepreneurship Week seminars and panels.
- Attended AUTM meetings 2006, 2011, 2015 and workshops Small Offices (2015), Licensing Basics (2011)

- Maintained relationships within state commercialization network: TN Valley Corridor Summits, Entrepreneur Centers (SMTEC), LaunchTN, CIS.

Selected Project Management Experience

XCEL-3D X-Ray Computational and Experimental Laboratory and 3D Visualization Center

- Establishing center through partnership with interdisciplinary group of X-ray and 3-D visualization experts
- Administrative role: run meetings, set fees and budget, policy, training and usage schedules. Internal Advisory Board and outreach to other institutions and businesses.
- Led proposal development that resulted in NSF funding XRD (MRI #1626549) \$300K
- PI on Dreyfus Special Projects grant (Dreyfus SG 14-019) to develop and test 3D visualization exercises as a learning tool in Organic Chem.

Boron Cluster-Based Liquid Crystalline Materials (2015-)

- Collaborated with PI with expertise in boron clusters and liquid crystalline materials who is primarily working in Lodz, Poland. Obtained \$340K (NSF-DMR) to synthesize and characterize materials at MTSU with undergraduate students and visiting scholars.
- Established MOU with Polish Academy of Science at Lodz and prepared paperwork for visiting scholars working on the project at MTSU.
- Managed budget, led group meetings and mentored 3-5 students and visiting scholars.

Biosensor (2002-2011)

- Collaborated with co-PIs from Biology and Physics to obtain \$300K (SERRI- DHS) to develop and test an optical biosensor in a flow cell configuration.
- Managed budget, led meetings. Wrote monthly and two final reports.
- Directed group of 2-3 graduate and undergraduate students working on the project.
- Served as a co-PI on grants for basic research on array biosensing: "Development and Application of a Novel Biosensor," NSF-CRUI (2002-2007, \$782,000, co-PI) and "Biotechnology Resource Group: A Framework for Innovative Partnerships," NSF-OIA-PFI (2003-2006, \$581,059, senior personnel).

STEPping Up Undergraduate Research at MTSU (2004-2010)

- Co-PI in "STEPping Up Undergraduate Research at MTSU (NSF-STEP, \$1.6M, co-PI) that used undergraduate research to retain and recruit STEM students.
- Responsible for interfacing with local industries, recruiting and placing students in internships paid 1/2 by grant and 1/2 by industry. Industry lunch during Scholars Week 2009.

MTSU Interdisciplinary Microanalysis and Imaging and Center (2004-2008)

- Established center through partnership with retired Biology professor to raise \$100K for renovation and wrote multi-PI proposal (unsuccessful) to obtain a SEM (NSF-MRI, 2004).
- Coordinated with architects and scientists to design space.
- Obtained \$520K for SEM/TEM from Office of Research and MTSU Foundation Special Project (PI).
- Convinced administration to hire a MIMIC Technical Manager, chaired search committee.
- Chaired Internal Advisory Board 2005-2007 to establish policy and user guidelines.

United South and Eastern Tribes Epidemiology Center (2008-2010)

- PI on \$100K contract to write a diabetes report and analyze healthcare costs.
- Coordinated communication of 2 faculty and 3 staff from MTSU with 3 staff at USET-EC.

NMR Suite in Chemistry Department. (2003-2006)

- Led a team to obtain funding for 300 MHz and 500 MHz NMRs: “Hands-On NMR Experiences in the Undergraduate Chemistry Curriculum,” (NSF-CCLI, PI, \$319,000 and “RUI: Research and Research Training in Synthetic Chemistry,” (NSF-RUI-MRI, co-PI, \$380,079).
- Responsible for budgeting and renovation coordination, lab manual update.

Polyelectrolytes for Biomedical and Battery Applications (1995-2002)

- NASA grant \$160K, pursued research in solid state battery materials development with help of 2 postdoctoral, one doctoral, 1 masters and 2 undergraduate students.
- 3 publications, 4 technical reports and 10 presentations
- PRF grant, research in polyelectrolyte encapsulation with collaborators at Vanderbilt University, 3 undergraduate students, 1 publication, 3 presentations

Organosilane Synthesis and Film Photochemistry (1994-2001)

- Pursued research in organosilane synthesis, film photochemistry
- Grants from Cottrell Science, PRF, and contract from NRL, fellowships from ASEE for 2 summers and visits to ORNL.

Interdisciplinary Project Development and Mentoring (2006-present)

- Arranged and led brainstorming sessions with up to 10 groups per year + regular meetings with interdisciplinary groups to develop proposals and white papers (e.g. unmanned aircraft systems and agriculture, healthy homes).
- Federal Initiatives 2008-2011. Coordinated with MTSU VPR Allen, VP Bales, and faculty groups to develop ideas - wrote 2-page summaries for the "MT Book" to clarify projects for legislators seeking to support MTSU and federal paperwork to help secure \$3.12M (2009), \$6.25 M request in 2010 (\$3M obtained), and \$12.2M request in 2011.
- Organized visits and/or accompanied groups of faculty members to industries, national labs (ORNL 2x) and NSF (2x) .
- Write MOUs and contracts with partner institutions: e.g. ORNL, ORAU, etc.

Other Leadership Roles

- Director Undergraduate Research Center - (Annual budget of >\$127K) Chair URECA grant committee meetings three times per year - revise policy, award grants for travel funding. Completely revised grant structure and created new URECA Summer Teams program, implemented Summer Research Celebration (2013), research courses.
- Chair, Scholars Week Committee (12 members) and Technical Chair (2006-present) - presided over meetings and arrangements for campus-wide celebration of scholarship annually in March. Global Entrepreneurship Week committee 2013, 2015, 2016
- Search Committees (last 8 years): Vice Provost for Academic Affairs (2011), Chair Chemistry (2012), Lab Coordinator (2011), Materials Chemist (Chair, 2010), Director of UAS Program (2010), MIMIC Technical Manager (Chair, 2006), Vice Provost for Research (2006).

- American Chemical Society Regional Meeting, Technical co-Chair (Nashville, 2008).
- MTSU representative for Oak Ridge Associated Universities. Made successful argument for MTSU to be Sponsoring Institution in 2012, attended ORAU meetings (with VPR) since 2008 to maintain relationships and form new partnerships.

Teaching Experience

Organic Chemistry CHEM 3010, 3020 (tested 3D visualization in class, lab)
 CHEM 3010 and 3020 laboratory management for 5 y (co-wrote 2 lab manuals),
 Introductory Organic CHEM 2030
 Synthetic Laboratory Techniques 4430 (team taught, wrote lab manual)
 Graduate Organic Chemistry CHEM 6100/7100 (Organic Reactions)
 Physical Organic Chemistry CHEM 6110/7110
 Polymer Chemistry CHEM 4700
 Polymer Chemistry Laboratory CHEM 4710 (wrote lab manual)
 General Chemistry CHEM 1010,1020

Research Interests. Organic materials chemistry: synthesis of precursors, characterization and modification of self-assembled organosiloxane films for sensors; polyelectrolyte synthesis and characterization; liquid crystalline nonlinear optical dyes and boron-cluster additives

Synergistic Activities, Faculty

Directs (or directed) Research of 56 undergraduate, 11 graduate students, and 3 postdocs in the area of organic materials chemistry. Published >20 times, presented >25 times at the national, regional levels, and student coauthors have presented over 100 times.

Maintained External Funding. Awarded 6 external grants (PRF, Research Corporation, NASA-HEDS, NSF-MRI, NSF-CRUI, NSF-RUI-MRI, NSF-STEP), two NRL contracts, and two summer fellowships with Naval Res. Labs, two SERRI contracts, 1 USET contract, Dreyfus award. Awarded 8 internal grants, including university grants for supplies, equipment, course development, and summer salary.

Co-advised MTSU Student Affiliates of the American Chemical Society (1994-2014); ACS Nashville Local Section Secretary (1994-1996). Initiated and mentors participants in *Demomania!*, a program of chemical demonstrations presented by MTSU SAACS members each spring to local high school students. Led coordination of the Golden Goggles Invitational Lecture and Chemistry, Department Research Open House (5 years), accompanied students to meetings; helped write reports (Club was recognized as Outstanding, Commendable)

Promote Undergraduate Research on Campus as Director of Undergraduate Research Center, annual presentations to students on undergraduate research and off-campus research opportunities, Basic & Applied Sciences, Undergraduate Research Council, Applied Research Task Force (URECA), memberships and participation in Council on Undergraduate Research (MTSU Liaison) and Project Kaleidoscope Faculty for the 21st Century, MTSU-SAACS, traveled to CUR Institute on Institutionalizing Undergraduate Research, member of writing teams for NSF-STEP and CHEM –STEM URC, REU proposal-writing.

Participates in Laboratory Development. Co-author of Organic Laboratory manuals, coauthor of single-semester organic lab manual; Organic Laboratory Coordinator (1993-1998, 2004-2005); author of Polymer Laboratory manual, co-author of Advanced Synthesis manual. Member of Honors and Graduate faculties.

PUBLICATIONS

Adam F. Farmer, Andrienne C. Friedli, Stephen M. Wright, William M. Robertson. Biosensing Using Surface Electromagnetic Waves in Photonic Band Gap Multilayers. *Sensors and Actuators B*. **2012**, *173*, 79-84.

Andrienne C. Friedli, Stephen M. Wright, William M. Robertson. Biosensor Research: SERRI Phase I and II Final Reports, Oak Ridge National Laboratory. August **2010**, December **2011**. <http://www.serri.org/publications/Pages/Reports.aspx>

Thomas Cheatham, Andrienne Friedli, William Robertson, Ginger Holmes Rowell, Planning, Securing, and Jumpstarting an NSF-STEP Grant. *CUR Quarterly*, July, 2005.

Andrienne C. Friedli and Inge R. Schlager, Demonstrating Encapsulation and Release: A New Take on Alginate Complexation and the Nylon Rope Trick. *J. Chem. Educ.* **2005**, *82*, 1017-20.

Andrienne C. Friedli; Rachel D. Roberts; Charles S. Dulcey, Andro R. Hsu; Stephen W. McElvany; Jeffrey M. Calvert, Photochemistry and Patterning of Monolayer Films from 11-Phenylundecyl trichlorosilane. *Langmuir* **2004**, *18*, 4295-4298.

Mirosław Trznadel and Andrienne C. Friedli, "Polymer Electrolytes From 5-6-Bisalkoxy-7-oxabicyclo[2.2.1]hept-2-ene Monomers. *Polymer Sci., Eng*, **2001**, *84*, 459-460.

Mirosław Trznadel, Jason T. Manka, Piotr Kaszynski, and Andrienne C. Friedli, Thermal Stability and Conductivity Properties of Monomeric and Polymeric Oxanorbornenes. NASA Conference Publication (NASA Microgravity Materials Science Conference 2000), **2001**, *1*, 234-238.

Jason T. Manka, Andrew G. Douglass, Piotr Kaszynski, and Andrienne C. Friedli, Retro Diels-Alder Reactions of 5,6-Disubstituted-7-Oxabicyclo[2.2.1]hept-2-enes: Experimental and Density Functional Theory Studies. *J. Org. Chem.* **2000**, *65*, 5202-5206.

Mu Zheng, Jason T. Manka, and Andrienne C. Friedli, Polyelectrolytes for Battery Applications: Synthetic Approaches and Precursor Properties. NASA Conference Publication (NASA Microgravity Materials Science Conference 1998), **1999**, 225-228.

Andrienne C. Friedli, Edward Yang, and Seth R. Marder, A Convenient Synthetic Entry into Aldehydes with Extended Conjugation. *Tetrahedron* **1997**, *53*, 2717-2730.

Andrew G. Douglass, Mu Zheng, Andrienne C. Friedli, and Piotr Kaszynski, Toward Bicyclo[2.2.2]Heptene Polyelectrolytes. *Polymer Preprints*, **1996**, 643.

Seth R. Marder, Bruce G. Tiemann, Andrienne C. Friedli, Edward Yang, and Lap-Tak Cheng, Large First Hyperpolarizabilities in Push-Pull Polyenes with Strong Acceptors. *MCLC S&T: Sect. B: Nonlinear Opt.* **1995**, 9(1-4), 213-221.

Seth R. Marder, Lap-Tak Cheng, Bruce G. Tiemann, Andrienne C. Friedli, Mireille Blanchard-Desce, Joseph W. Perry and Jurgen Skindhøj, Large First Hyperpolarizabilities in Push-Pull Polyenes by Tuning of the Bond Length Alternation and Aromaticity. *Science*, **1994**, 263, 511-514.

Piotr Kaszynski, Andrienne C. Friedli, Josef Michl, Toward a Molecular-Size 'Tinkertoy' Construction Set. Preparation of Terminally Functionalized [n]Staffanes from [1.1.1]Propellane. *J. Am. Chem. Soc.* **1992**, 114, 601-620.

Yaw S. Obeng, Mark D. Laing, Andrienne C. Friedli, Huey-Chin Yang, Dognyi Wang, Erik W. Thulstrup, Allan J. Bard, Josef Michl, Self-Assembled Monolayers of Parent and Derivatized [n]Staffane-3,3⁽ⁿ⁻¹⁾-Dithiols on Polycrystalline Gold Electrodes. *J. Am. Chem. Soc.* **1992**, 114, 9943-9952.

Andrienne C. Friedli, Vincent M. Lynch, Piotr Kaszynski, and Josef Michl, Crystal Structures of Six Terminally Substituted [n]Staffanes, n=1-4. *Acta Cryst.* **1990**, B46, 377-389.

Piotr Kaszynski, Andrienne C. Friedli, Neil D. McMurdie, and Josef Michl, "Synthesis of Liquid Crystals Based on Bicyclo[1.1.1]pentane," *Mol. Cryst. Liq. Cryst.* **1990**, 191, 193-197.

Andrienne C. Friedli, Piotr Kaszynski, and Josef Michl, Towards a Molecular-Size Construction Set: 3,3⁽ⁿ⁻¹⁾-Bisacetylthio[n]staffanes. *Tetrahedron Lett.* **1989**, 30, 455-458.

Josef Michl, Piotr Kaszynski, Andrienne C. Friedli, Gudipati S. Murthy, Neil D. McMurdie, Hye-Kuek Chang, Huey-Chin Yang, Randall E. Robinson, and Taisun Kim, Harnessing Strain: From [1.1.1]Propellane to Tinkertoys. in *Strain and Its Implications in Organic Chemistry*; de Meijere, A; Blechert, S., Eds, NATO ASI Series, Vol. 273; Kulwer Academic Publishers: Dordrecht, The Netherlands 1989, p. 463-482.

Andrienne C. Friedli, Piotr Kaszynski, and Josef Michl, Mesogenic Properties of Telomers of [1.1.1]Propellane. *Mol. Cryst. Liq. Cryst. Lett.* **1988**, 6, 27-33.

Theses and Dissertations

Mu Zheng, D.A. 1997, "I. Synthesis of Polyelectrolytes for Biomedical Applications via Ring Opening Metathesis Polymerization of 7-Oxanorbornene Derivatives. II. Development of a Polymer Laboratory Course for Undergraduate Students."

Douglas B. Tatham, M.S. 1998, "Synthesis and Film Formation of 1-Phenyl-4-trichlorosilylbicyclo[2.2.2]octane and 1-(4-Octylphenyl)-4-trichlorosilylbicyclo[2.2.2]octane"

Zujiang Wang, M.S. 1999, "Approaches to Photopatternable Organosiloxane Multilayers"

Celeste M Matthews, M.S. 2001, "Effects of Experimental Conditions on Coverage of Fumed Silica by Organosilanes."

Adam F. Farmer, Honors B. S., 2004, "Development of a Biosensor"

John W. Cline, M. S. 2005, "Impedance Spectroscopy of Amine-Terminated Organosiloxane Films"

Jacob D. Acton, Honors B. S., 2006, "Investigation of the Hydrosilylation Reaction for Synthesizing Organosilanes."

Samuel T. Mitchell, Honors B. S., 2011 " Investigation into the Quantity and Quality of Protein-Antibody Binding Events in Porous Silica

Peter J. Cothron, M. S. 2012, "The Detection and Depletion of Chemical Weapons Models Using Mesoporous TiO₂ Thin Films

Patrick F. Greco, D. A. 2012, " Part I. Synthesis and Characterization of Donor- π -acceptor Compounds with Pentadienyl-bridged Indoline and Tetrahydroquinoline Donors and Aldehyde and Thiobarbituric Acid Acceptors.

Ja'be Kiri , M. S. 2013 "Dendronic Surfaces for Detection of Explosive Vapors"

Matthew Robinson, M. S. 2014 "Part I: Effects of Pyramidalization at Nitrogen in a Series of Donor-Pi-Acceptor Dyes." Part II: Effects of Vinyltrimethoxysilane on Bone Growth Templates."

Peter Haddix, M. S. 2014 "Toward Fluorescence Enhancement of Dyes in Mesoporous SiO₂ and Organic Films"

FUNDED GRANTS

Research

“Liquid Crystalline Zwitterionic Derivatives of *closo*-Borates for Display Applications,” NSF-DMR, (PI, Kaszynski, co-PI Friedli), \$340,000, 05/01/16-4/30/19.

“Using Stereoscopic 3D Visualization to Improve Learning in Organic Chemistry,” Camille and Henry Dreyfus Foundation #14-019, PI Friedli, co-PIs Volkov, Sanger, Awarded 11/15/14, \$19,100 (1y)

“Biosensor Research, Phase I,” SERRI-DHS contract (PI Friedli, co-PIs Robertson & Wright) awarded 9/30/09- 12/31/09, \$149,923 (1 y) and Phase II \$149,981. 01/01/10 - 12/31/11.

“STEPping Up Undergraduate Research at MTSU,” NSF-STEP #0431652, PI Cheatham; co-PIs Friedli, Robertson, Rowell), awarded 09/01/04-08/31/10, \$1,700,000.

“Biotechnology Resource Group: A Framework for Innovative Partnerships,” NSF-OIA-PFI (PI T. Cheatham, coPIs S. M. Wright, R. Seipelt, Senior Personnel: A.C. Friedli, W.M. Robertson, J. Zamora), awarded January 2003, \$581,059 (3 y).

“Development and Application of a Novel Biosensor,” NSF-CRUI # (PI S. M. Wright, A. C. Friedli, W. M. Robertson), awarded August 1, 2002, \$782,000 (4 y).

“Design and Synthesis of Organosiloxane Films for the Controlled Entrapment of Physisorbed species,” Naval Research Laboratory Contract, (PI A. Friedli), October 1, 1998. \$19,988 (1 y).

“Development of Anionic Polyelectrolytes for Solid State Battery Applications,” NASA HEDS Program, (PI Friedli), February 1, 1998. \$165,000 (4 y).

“Carborane Self-Assembled Films,” MTSU FRCAC Summer Research Grant, (PI A. Friedli), 1998, \$4000.

Contract with Naval Research Laboratory for Collaborative Projects, (PI A. Friedli), 1996, \$10,000 (1 y).

“Alkylsiloxanes at Interfaces: An Investigation of Structure in Thin Films,” MTSU FRCAC Summer Research Grant, (PI A. Friedli), 1996, \$3990.

“A Proposal to Attend the 5th Bio/Environmentally Degradable Polymer Society Conference,” MTSU Faculty Development Grant, (PI A. Friedli), 1996, \$870.

“Molecule-Film Structure Correlations in Arylalkylsilanes,” Cottrell Science Award, Research Corporation, (PI A. Friedli), May 15, 1995. \$34,000, (2 y).

“Polyelectrolytes for Biomedical Applications,” American Chemical Society Petroleum Research Fund, Type B, (PI A. Friedli), September 1995, \$20,000 (2 y)

“Liquid Crystalline Materials for Nonlinear Optics,” MTSU FRCAC Academic Year Research Grant, (PI A. Friedli), September 14, 1995, \$3345.

“Attending a Workshop on State-of-the-Art Instruments in Polymer Characterization to Aid in the Design of CHEM 428/528,” Instructional or Education Development Grant. MTSU Faculty Development Grant, (PI A. Friedli), 1993, \$1500.

“Ball and Stick Models vs. Computer Modeling Software/Tutorials: An Investigation of the Comparative Impact on Student Understanding of Organic Stereochemistry,” MTSU FRCAC Academic Year Research Grant, (PIs A. Friedli and B.J. Hood), September 15, 1994, \$7000.

“Reactive Intermediates Preserved in Glass,” MTSU FRCAC Academic Year Research Grant, (PI A. Friedli), September 1993, \$6250.

Instrumentation for Research

“MRI: Acquisition of a Single Crystal XRD for Research, Training, and Teaching” NSF-MRI (PI Ding, co-PIs Volkov, Kaszynski, Koritsanszky, Handy, SP Friedli) \$336,499, 07/01/16-06/30/19. Submitted 1/13/16, Funded Aug 1, 2016 (3 y). (Friedli led group proposal)

“Hands-On NMR Experiences in the Undergraduate Chemistry Curriculum,” NSF-CCLI #0311641, PI Friedli, Co-PIs Dunlap, Howard, Iriarte-Gross), 07/01/03, \$145,459 (2 y).

“RUI: 500 MHz NMR for Research and Research Training in Chemical Synthesis,” NSF-RUI-MRI #0321211, PI Dunlap, Co-PIs Friedli, Howard, Iriarte-Gross, 8/01/03-7/31/05, \$380,079.

“Ellipsometry: A Multidisciplinary Approach to Thin Film Characterization,” MTSU FRCAC Academic Year Research Grant, PIs Friedli, Robertson), awarded Nov 2002, \$10,000, (1 y).

“Acquisition of Polymer Characterization Equipment for Research and Research Training” NSF-MRI #9977729, PI Patterson, co-PI Friedli, Robertson, Weller), \$137,000. Awarded 9/15/99.

“Mapping a Molecular Landscape Using Atomic Force Microscopy: A Combined Academic Year and Summer Proposal,” MTSU Faculty Research and Creative Activity Grant, (PI A. C. Friedli), awarded November 2002, \$10,000, (1 y).

“Establishing the MTSU Interdisciplinary Microscopy and Imaging Center (MIMIC)” MTSU Foundation Special Projects (A. C. Friedli, PI) \$15,000. 4/18/05

NOT FUNDED (last 5 years)

“EXP: An Affordable 3D Mini-Hyperwall for Learning Visuospatial Skills,” NSF- IIS - Cyberlearning, (PI Volkov, co-PIs Friedli, Oslund, Phelps, SP Martin), \$421,849, 06/01/16-05/31/18. Submitted 12/18/15.

“Cybertechnology for Improving Learning in Introductory Chemistry (IC-3D), ” NSF- DUE - IUSE-Engaged Student Learning: Design & Development I&II #1525161, PI Friedli, co-PIs Volkov, Tai, Langston, SP Martin, \$589,387 requested. 07/01/15-06/30/18. Submitted 1/13/15.

“EXP: An Affordable 3D Mini-Hyperwall for Learning Visuospatial Skills,” NSF- IIS - Cyberlearn & Future Learn Tech #1523183, PI Volkov, co-PIs Friedli, Tai, Langston, SP Martin, \$429,570 requested. 06/01/15-05/31/17. Submitted 12/19/14.

“Middle Tennessee Distributed Research Park,” EDA: i6Challenge, \$500,000. PI Brewer (TTU) Co-PI Canfield (TTU), Friedli, Hargrove (TSU). Submitted 11/03/14.

“REU Site: Research at the Interface Between Chemistry, Biology, and Physics with Technology Transfer and Intellectual Property Links,” NSF CHE - MPS/CHE #1461108, PI-Friedli, co-PI Chusuei, \$359,853, 02/01/15-01/31/18, Submitted 08/27/14.

“CAP: 3D Visualization for Enhancement of Learning in Introductory Chemistry (IC-3D), #1455642, PI Volkov, co-PI Sanger, \$49,919 requested. 01/01/15-12/31/17. Submitted 7/27/14. Rejected 11/15/14.

"Summer STEM Scholarship Program (S3)" NSF DUE - S-STEM #1356367, PI Seipelt, co-PI Ervin, Foroudastan, Green, Friedli, \$610,842 requested. 05/15/14-05/14/17. Submitted 8/13/14.

"Label-free Biosensor Based on Bloch Surface Waves," NIH-AREA, PI-Robertson, co-PI Wright, Friedli, \$330,000, 01/01/14-12/31/17, Submitted 06/29/13.

“REU Site: Research at the Interface Between Chemistry, Biology, and Physics with Technology Transfer and Intellectual Property Links,” NSF CHE - MPS/CHE #1338149, PI-Friedli, co-PI Chusuei, \$359,853, 01/01/14-12/31/17, Submitted 08/28/13.

“MRI: Acquisition of Raman-IR Microscope for Materials Design and Bioanalytical Research” NSF-MRI #1338149, PI Chusuei, co-PIs Ooi, Peres, Friedli, Wang, \$362,880 requested. Submitted 2/21/13.

“STTR Phase I: Sustainable Reduction of Indigo and Commercially Feasible Plant Extraction”, NSF-STTR #1332162, PI Sarah Bellos, co-PI Friedli, \$224,966, 07/01/13-06/30/14. Submitted 02/06/13.

“An Alternative Plasmonics Based on Surface Electromagnetic Waves in Photonic Band Gap Multilayers,” NSF-ECCS #1232114, PI Robertson, co-PIs Friedli, Wright, \$485,051, 08/01/12-07/31/15. Submitted 02/07/12.

“University Center Consortium to Cultivate Innovation at Three TBR Institutions,” EDA: UC, \$2,000,000. PI Friedli, co-PI Curry (TTU), Duncan (ETSU). Submitted 03/29/12.

“MRI: Acquisition of an Infrared Microscope for Research and Research Training at MTSU, NSF-MRI #1229636, PI Ooi, co-PIs Chong, Wang, Friedli, \$201,182 requested, 08/01/12-07/31/14. Submitted 1/26/12.

Faculty Awards

Clare Booth Luce Scholarship, HERS Leadership Institute

College/Departmental Faculty Achievement Award 1996
3rd Annual Faculty Appreciation Award (MTSU-SAACS) 2003
MTSU Foundation Distinguished Research Award 2003-2004
CBAS Overall Excellence Award 2006

Service to the Scientific Community

Manuscript Reviewer for: *Langmuir*, *Journal of Chemical Education*, *Journal of Organic Chemistry*, *Tetrahedron*, *Journal of Physical Organic Chemistry*, *Journal of Environmental Catalysis*

Proposal Reviewer for: National Science Foundation (panel and individual), Research Corporation, Petroleum Research Fund (ACS), NIH.

University and Departmental Service

Chemistry Career Fair committee (2016- present)
Technical Chair, Scholars Week Research Celebration, 2007 - present
Undergraduate Research, Scholarship, and Creative Activity (URECA) Committee 2003-2016
President's Commission on the Status of Women at MTSU (1998-2003, Chair, 2001-2003)
Faculty Research and Creative Activity Grants Committee (1998-2000, 2007)
Applied Research Task Force (1999-2001)
Undergraduate Research Council (B&A Sciences) 1996-2003
Faculty Search Committees (organic, computational, materials, physical, Chair of Organic search 2003)
Chemistry Department Newsletter Editor
Undergraduate Curriculum Committee (Departmental)
Chemistry Major Advisor (wrote Undergraduate Guide to Chemistry)
Co-advisor for Student Affiliates of the American Chemical Society "Chemistry Club" club designated as Commendable or Outstanding each year (1994-2014)
Council on Undergrad Research Liaison for MTSU (1996-present)
June S. Anderson Foundation Board (1996-present, VP 2004-present)

Public Service

Mentor for Demomania! Demonstration Program 1995-1998, 2000-2012
National Chemistry Week Demonstrations for elementary school kids 1998, 1995
Secretary Local Section, American Chemical Society (1994-1996)
Technical Program co-Chair of Southeast Regional Meeting of the ACS 2008.

Conferences and Workshops

- Southeastern Universities and Researchers Association Workshop on Funding for Materials Research, September 23-24, 1994, Nashville, TN.
- American Chemical Society Spectroscopy of Polymers Short Course, February 16-17, 1994, Chicago, IL.
- Thermal Analysis Short Course, April 16, 1994, Bowling Green, KY.
- Grant-Writing Workshop, April 15, 1994, Murfreesboro, TN.
- 15th International Liquid Crystal Conference, July 3-8, 1994, Budapest, Hungary.
- 13th Biennial Conference on Chemical Education, August 1-4, 1994, Lewisburg, PA.

- 209th National Meeting of the American Chemical Society, April 1-7, 1995, Anaheim, CA.
- Vanderbilt University Materials Retreat, October 28, 1995, Nashville, TN.
- Materials Research Society Fall Meeting, Nov. 27-Dec. 1, 1995, Boston, MA.
- (Invited speaker and chair of session)
- Foundation & Corporate Grant-Writing Seminar, April 25, 1996, Murfreesboro, TN.
- American Chemical Society Short Course on Molecular Modeling of Polymers, March 11-13, 1996, Akron, OH.
- 211th American Chemical Society National Meeting, March 24-28, 1996, New Orleans, LA.
- Mini-Symposium on Frontiers in Materials Chem, May 20, 1996, Vanderbilt, Nashville, TN.
- 6th Conference of the Council on Undergraduate Research, June 27-29, 1996, Durham, NC.
- Engineering Foundation: Bio/Artificial Organs Science and Technology, July 21-26, 1996, Brentwood, TN.
- 5th Meeting of the Biodegradable Polymer Science and Engineering Society, September 24-27, 1996, Nashville, TN.
- Project Kaleidoscope, 21st Century Faculty Meeting, October 11-13, 1996, Kansas City, MO.
- Materials Research Society Fall Meeting, Dec. 2-5, 1996, Boston, MA.
- 213th American Chemical Society National Meeting, April 13-18, 1997, San Francisco, CA.
- Gordon Conference on Organic Thin Films, July 13-18, 1997, Newport, RI.
- Spartan Molecular Modeling Workshop, October 1997, Centre College, Danville, KY.
- 215th American Chemical Society National Meeting, April 13-18, 1998, Dallas, TX
- Microgravity Materials Science Conference, June 6-8, 1998, Huntsville, AL.
- 50th Southeastern Regional Meeting of the American Chemical Society, November 4-7, 1998, Research Triangle Park, NC
- 51st Southeastern Regional Meeting of the American Chemical Society, October 17-20, 1999, Knoxville, TN.
- Second International Conference on MicroThermal Analysis, May 8-9, 2000, Western Kentucky University, Bowling Green, KY.
- Microgravity Materials Science Conference, June 6-8, 2000, Huntsville, AL.
- World Polymer Congress/50th Macromolecular IUPAC Symposium, July 9-14, 2000, Warsaw, Poland. (Poster session II)
- Joint Meeting of the Tennessee / Kentucky Academy of Sciences, Middle Tennessee State University, November 2000.
- National Council on Undergraduate Research 2001, March 15-17, 2001, Lexington, KY.
- 221st National Meeting of the American Chemical Society, April 15, 2001, San Diego, CA.
- Council on Undergraduate Research Workshop on Institutionalizing Undergraduate Research, October 18-20, 2002, The College of New Jersey, Trenton, NJ.
- 112th Annual Meeting of the Tennessee Academy of Science, November 15, 2002, East Tennessee State University, Johnson City, TN.
- 225th National Meeting of the American Chemical Society, March 23-27, 2003, New Orleans, LA.
- Spartan Molecular Modeling Workshop, June 2003, Middle Tennessee State University, Murfreesboro, TN.
- 55th Southeastern Regional Meeting of the American Chemical Society, November 16-19, 2003, Atlanta, GA.

- Introduction to the Nuts and Bolts of Classroom Research (Diane Bunce), January 29, 2004, Middle Tennessee State University, Murfreesboro, TN.
- 227th National Meeting of the American Chemical Society, 2004.
- Multi-Initiative Dissemination Workshop, October 15-16, 2004, University of Tennessee, Knoxville, Knoxville, TN
- TN Materials Science Consortium, October 19, 2004, Montgomery Bell State Park, Dickson Co.TN
- 56th Southeastern Regional Meeting of the American Chemical Society, November 10-13, 2004, Research Triangle Park, NC.
- 229th National Meeting of the American Chemical Society, 2005, New Orleans, LA.
- 231st National Meeting of the American Chemical Society, March 26-30, 2006, Atlanta, GA.
- NSF-STEP Grantees Meeting, April 20-22, 2006, Washington, D. C.
- Tennessee Valley Technology Corridor Summit, May 26-27, 2006, Chattanooga, TN
- Association of University Technology Managers Licensing Workshop, October, 2006, St. Louis, MO.
- NSF-STEP Grant 3rd Year Review, March 20-23, 2007, Washington, D. C.
- Gordon Research Conference on Surfaces, July 27-August 2, 2007, Providence, RI.
- TMSTEC Math and Science Education Research Conference, February 21-22, 2008, Murfreesboro, TN.
- IPO/AUTM Pre-meeting Workshop Academic/Industrial Partnerships, February 26, 2008, San Diego, CA.
- Association of University Technology Managers Annual Meeting, February 26-29, 2008, San Diego, CA.
- Oak Ridge Associated Universities Leadership Summit, March 4-5, 2008, Oak Ridge, TN.
- 65th Southeastern Regional Meeting of the American Chemical Society, November 12-15, 2008, Nashville, TN.
- Oak Ridge Associated Universities Leadership Summit, March 4-5, 2009, Oak Ridge, TN.
- 237th National Meeting of the American Chemical Society, March 22-26, 2009, Salt Lake City, UT.
- Oak Ridge Associated Universities Leadership Summit, March 3-4, 2010, Oak Ridge, TN.
- 241st National Meeting of the American Chemical Society, March 26-31, 2011, Anaheim, CA.
- ACS Leadership Course in Leading without Authority (Full Scholarship) March 28, 2011, Anaheim, CA.
- Oak Ridge Associated Universities Leadership Summit, March 2-3, 2011, Oak Ridge, TN.
- Oak Ridge Associated Universities Leadership Summit, March 13-14, 2012, Oak Ridge, TN.
- Oak Ridge Associated Universities Leadership Summit, March 6-7, 2013, Oak Ridge, TN.
- 246th National Meeting of the American Chemical Society, September 8-12, 2013, Indianapolis, IN.
- Tennessee Valley Technology Corridor Summit, June 4-5, 2014, Chattanooga, TN
- 71st Southeastern Regional Meeting of the American Chemical Society, November 16-18, 2014, Nashville, TN. (Invited Talk)
- TSEC Math and Science Education Research Conference, February 10-11, 2015, Murfreesboro, TN.

- Oak Ridge Associated Universities Summit (Big Data), March 4, 2015, Oak Ridge, TN.
- Tennessee Valley Technology Corridor Summit, May 27-28, 2015, Johnson City, TN
- TSEC Math and Science Education Research Conference, February 11-12, 2016, Murfreesboro, TN.
- CBL Scholarship, HERS Leadership Training. June 2016, Denver, CO
- TSEC Math and Science Education Research Conference, February 2-3, 2017, Murfreesboro, TN.

PRESENTATIONS

Invited Lectures (not conferences)

- Tennessee State University, seminar in Chemistry Department, "Developing Bio- and Chemical Defense Applications for a Photonic Band Gap Sensor," September 23, 2010.
- Technological University, seminar in Chemistry Department, November 2005.
- "The NSF Says "Yes" to Two NMR Spectrometers: Now What?," seminar with Dr. N. Dunlap at Middle Tennessee State University, Sept. 11, 2003.
- "Design of Organosiloxanes for Efficient Photochemistry," seminar at University of Mississippi at Oxford (Ole Miss), September 16, 2000.
- "Molecular Structure/Film Property Relationships in Arylalkyltrichlorosilanes," seminar at University of Tennessee at Knoxville, January 18, 1998.
- "Molecular Structure/Film Property Relationships in Arylalkyltrichlorosilanes," seminar at University of Memphis, September 13, 1997.
- "Organic Coatings on Glass," Austin Peay State University, Clarksville, TN, February 28, 1997.
- "Materials Chemistry: Definition and Examples," Fisk University, Nashville, TN, February 28, 1995.
- "Photochemistry of Arylalkylsiloxane Films," Fall Meeting of the Materials Research Society, Nov. 28, 1995 Boston, MA.
- "Modern Materials for Nonlinear Optics," seminar at IUPUI-Fort Wayne, IN, March 18, 1994.
- "Structural and Photochemical Properties of Self-Assembled Siloxane Films," Middle Tennessee State University, Murfreesboro, TN, September 29, 1994.
- "Modern Materials: A Chemist's Perspective," Middle Tennessee State University, Murfreesboro, TN, September 16, 1993.

National Conference Presentations

Ja'be G. Kiri and Andrienne C. Friedli "Dendronic Surfaces for the Detection of 2,4-Dinitrotoluene Explosives Vapor." 246th National Meeting of the American Chemical Society, September 8-12, 2013, Indianapolis, IN. Abstract ANYL 104.

Andrienne C. Friedli, Matthew A. Robinson, Patrick F. Greco, Honorio J. Gonzalez, Angela J. Gootee, "Effect of Pyramidalization at Nitrogen in a Series of Donor-Acceptor Dyes," 246th National Meeting of the American Chemical Society, September 8-12, 2013, Indianapolis, IN. Abstract ORGN 563 (Poster and SciMix).

Andrienne C. Friedli, William M. Robertson, Bart A. Morris, Peter J. Cothron, Kara D. Cole, Cory L. Davis, "Organosilicate Films Coupled to Photonic Band Gap Multilayer Materials for Gas Sensing." 237th National Meeting of the American Chemical Society, March 22-26, 2009, Salt Lake City, UT. Abstract INOR 740. (Poster and Sci-Mix)

Andrienne C. Friedli, Kyle Williams,* William M. Robertson, and Stephen M. Wright, "Interfacial Layers for Label-Free Biosensors," Gordon Research Conference on Surfaces and Interfaces for Biosensors, July 29-August 3, 2007, Providence, RI. Poster.

Thomas Cheatham, Ginger Rowell, William Robertson, Andrienne Friedli, Stepping Up Undergraduate Research at Middle Tennessee State University with STEP^{MT} (STEP Grantees Meeting, Washington, D.C., March 20-23, 2007 (Poster, Project 0336545).

Andrienne C. Friedli, "Research at a Comprehensive University: Working with and Around Your Environment," 231st National Meeting of the American Chemical Society, March 26-30, 2006, Atlanta, GA. Abstract CHED 1242. (Invited talk).

Andrienne C. Friedli, William M. Robertson, Stephen M. Wright, A. F. Farmer, J. D. Acton, G. G. McPherson, J. R. Oxsher, C. E. Campbell, T. R. Denton, A. C. Shulman, C. H. Tinkle, K. R. Onks, "Surface Wave Biosensor Using Multilayer SiO₂/TiO₂ Films with Thin Organosiloxane Interfacial Coatings" 229th National Meeting of the American Chemical Society, March 13-17, 2005, San Diego, CA. Vol. 229, p. U98. Abstract ANAL 55. (Poster, Sci Mix and Technical)

Cameron K. Gren, Elizabeth C. Moll, and Andrienne C. Friedli, "Correlation of Dye Color with Structure: Modular Organic Laboratory Experiments" 225th National Meeting of the American Chemical Society, March 23-28, 2003, New Orleans, LA. Vol 225, p. U341. Abstract CHED 0112. (Poster, Sci Mix and Technical)

Mirosław Trznadel and Andrienne C. Friedli, "Polymer Electrolytes from 5,6-Bisalkoxy-7-Oxabicyclo[2.2.1]hept-2-ene Monomers," 221st National Meeting of the American Chemical Society, April 1-5, 2001, San Diego, CA. Vol 221, p. U397. Abstract PMSE 256. (Poster, Sci Mix and Technical)

Andrienne C. Friedli and Amanda L. Daniel, "Distinguishing Chemisorption and Physisorption of Organosilanes on Fumed Silica Using Thermal Analysis," Second International Conference on MicroThermal Analysis, May 8-9, 2000, Western Kentucky University, Bowling Green, KY. (Poster)

Andrienne C. Friedli, Zujiang Wang, Elizabeth C. Moll, Christy E. Huffman, and Amanda K. Buckmaster, "215th National Meeting of the American Chemical Society, March 29-April 2, 1998, Dallas, TX. Abstract COLL 0167. (Poster)

Mu Zheng, Jason T. Manka, and Andrienne C. Friedli, "Polyelectrolytes for Battery Applications: Synthetic Approaches and Properties," Microgravity Materials Science Conference, Huntsville, AL, July 14-16, 1998.

Andrienne C. Friedli, Rachel D. Roberts, Christy E. Huffman, Elizabeth C. Moll, Andro R. Hsu, Stephen W. McElvany, Charles S. Dulcey, and Jeffrey M. Calvert, "Photopatternable Organosiloxane Films: Formation, Surface Properties, and Reactivity," Gordon Research Conference on Thin Films, Newport, RI, July 13-18, 1997. (Poster)

Rachel D. Roberts, Christy E. Huffmann, and Andrienne C. Friedli, "Chemical Modification of ω -Phenylalkyltrichlorosilane SAMs," 213th National Meeting of the American Chemical Society, April 13-18, 1997, San Francisco, CA. Abstract CHED 0471. (Poster)

Andrienne C. Friedli, Rachel D. Roberts, Christy E. Huffman, Andro R. Hsu, Charles S. Dulcey, Stephen W. McElvany, and Jeffrey M. Calvert "Photo- and Wet Chemical Transformations of Self-Assembled Films From Arylalkyltrichlorosilane," Materials Research Society, Boston, MA, Dec. 1-5, 1996. Abstract Ca4.6. (Talk)

Andrew G. Douglass, Mu Zheng, Andrienne C. Friedli, Dariusz Lipiak, and Piotr Kaszynski "Synthetic Approaches to Polyelectrolytes for Biomedical Applications," Engineering Foundation Conference: Bioartificial Organs: Science and Technology, Brentwood, TN, July 21-26, 1996. (Poster)

Andrienne C. Friedli, Summer L. Grooms, Rachel D. Roberts, and L. Shayne Webb, "An Introduction to Research Projects in Organic Materials Chemistry Through Demonstrations and Lab Experiments," Council on Undergraduate Research, June 27-29, 1996. (Poster)

Andrew Douglass, Mu Zheng, Andrienne C. Friedli, and Piotr Kaszynski, "A Versatile Monomer for Polyelectrolytes via ROMP," 211th National Meeting of the American Chemical Society, March 24-28, New Orleans, LA, 1996. Abstract POLY 0118. (Poster)

Andrienne C. Friedli, Rachel D. Roberts, Charles S. Dulcey, Andro R. Hsu, and Jeffrey M. Calvert, "Photochemistry of Arylalkylsiloxane Films," Fall Meeting of the Materials Research Society, Nov. 27-Dec. 1, 1995, Boston, MA. Abstract O157. (Invited talk)

Andrienne C. Friedli, Rachel D. Roberts, Charles S. Dulcey, Andro R. Hsu, and Jeffrey M. Calvert, "Ultrathin Films from ω -Phenylalkyltrichlorosilanes," 209th National Meeting of the American Chemical Society, Anaheim, CA, April 1-4, 1995, Abstract COLL 010.

Andrienne C. Friedli and Martin V. Stewart, "Use of the Chemical Literature as an Organic Laboratory Exercise," 13th Biennial Conference on Chemical Education, Lewisburg, Pennsylvania, August 1, 1994. Abstract 58B-4.

Regional Presentations

Thomas Cheatham, Anatoliy Volkov, Andrienne C. Friedli, Eric Oslund, "3D Visualization in Teaching," Tennessee STEM Education Conference, February 11-12, 2016, Murfreesboro, TN.

Andrienne C. Friedli, Anatoliy Volkov, Leah Martin, Thomas Cheatham, "Investigating 3D Visualization and Learning in Chemistry," Tennessee STEM Education Conference, February 5-6, 2015, Murfreesboro, TN.

Andrienne C. Friedli, “The Effect of Geometry at Nitrogen on Properties in a Series of Donor-pi-Acceptor Dyes,” in Conjugated Organic Materials for Energy Storage, Energy Conversion and Charge Transport II, Southeast Regional Meeting of the American Chemical Society, October 18, 2014, Nashville, TN. Talk.

Andrienne C. Friedli, “Nanoimprinted Organosilicates for Sensing Applications,” 60th Southeastern Regional Meeting of the American Chemical Society, November 12-15, 2009, Nashville, TN. Abstract 332 (Poster and Sci-Mix)

Andrienne C. Friedli, Norma K. Dunlap, and James C. Howard, “Developing an NMR-Rich Organic Laboratory,” 56th Southeastern Regional Meeting of the American Chemical Society, November 10-13, 2004, Research Triangle Park, NC. Abstract 468. (Talk)

Andrienne C. Friedli, Amanda L. Daniel, Zujiang Wang, Walter J. Dressick, and Susan L. Brandow, “Physisorption of Small Molecules in Phenylalkyldimethylsilyl Chloride SAMs,” 51st Southeastern Regional Meeting of the American Chemical Society, October 17-20, 1999, Knoxville, TN. Abstract 87. (Talk)

Andrienne C. Friedli, Amanda L. Buckmaster, Zujiang Wang, and Inge R. Schlager, “Chemical Reactions at Organosiloxane Film Interfaces,” 50th Southeastern Regional Meeting of the American Chemical Society, November 4-7, 1998, Research Triangle Park, NC. Abstract 560. (Talk)

Andrienne C. Friedli, Mu Zheng, and Jason T. Manka, “Synthesis and Thermal Properties of a Family of Polyelectrolytes,” 50th Southeastern Regional Meeting of the American Chemical Society, November 4-7, 1998, Research Triangle Park, NC. Abstract 640. (Talk)

Andrienne C. Friedli, Rachel D. Roberts, Christy E. Huffman, Elizabeth C. Moll, and Jeffrey M. Calvert, “ ω -Phenylalkyltrichlorosilane SAMs and Their Chemical Modification,” Chemistry Building Dedication Vanderbilt, April 25, 1997. (Poster)

Andrew G. Douglass, Mu Zheng, Andrienne C. Friedli, Dariusz Lipiak, and Piotr Kaszynski, “Approaches to Polyelectrolytes for Battery and Membrane Applications,” Mini-Symposium on Frontiers of Materials Research, Vanderbilt University, May 20, 1996. (Poster)

Andrienne C. Friedli, Rachel D. Roberts, Douglas B. Tatham, Andro R. Hsu, Charles S. Dulcey, and Jeffrey M. Calvert, “Designer Silsequioxanes for Microlithography,” Mini-Symposium on Frontiers of Materials Research, Vanderbilt University, May 20, 1996. (Poster)

Student Presentations - Over 100 national, regional or local talks and posters

Student Presentations National Meetings (last 5 years)

Gabrielle R. Ashley, Donnan J. Keith, Christopher O. Adereti, and Andrienne C. Friedli. “Synthesis and Properties of Donor-pi-Acceptor Polyene Dyes with Azacycloalkane Donors.” 249th National Meeting of the American Chemical Society, March 22-26, 2015, Denver, CO. Abstract CHED 1294.

Donnan J. Keith, Robert W. Tilford, Dharmesh P. Patel, and Andrienne C. Friedli
“Synthesis and Properties of a Donor-Pi-Acceptor Dye with a Pentylpiperidinyl Donor.”
247th National Meeting of the American Chemical Society, March 16-20, 2014, Dallas,
TX. Abstract CHED 1250.

Peter D. Haddix, William M. Robertson, and Andrienne C. Friedli, “Dye-Tagged Mesoporous Silicate Thin Films to Test Nonlinear Fluorescence Enhancement.” 246th National Meeting of the American Chemical Society, September 8-12, 2013, Indianapolis, IN. Abstract COLL 269. (Poster)

Samuel T. Mitchell,* Mohammedali Gangardiwala, LaTeasha M. Hughes,* Stephen M. Wright, Joyce L. Miller, and Andrienne C. Friedli, “Binding of Bovine Serum Albumin to Mesoporous SiO₂ Films and Solids.” American Chemical Society Spring 2012 National Meeting and Exposition, March, 25-29, 2012, San Diego, CA. Abstract CHED 346. (Poster)

Samuel T. Mitchell,* LaTeasha M. Hughes,* Andrew A. Yousef,* Stephen M. Wright, and Andrienne C. Friedli “Fluorescence Microscopy Comparison of Tagged Protein/Antibody On Mesoporous and Nonporous Surfaces.” 239th National Meeting of the American Chemical Society, March 27-31, 2011, Anaheim, CA. Abstract CHED 242. (Poster)

Student Presentations, Regional and State (last 5 years)

John C. Lasseter, Jacek G. Pecyna, Pawel Tokarz, and Andrienne Friedli, Piotr Kaszynski, "Synthesis of Photoluminescent Bis-zwitterions of the [closo-B₁₂H₁₂]²⁻ Cluster," Tennessee Academy of Sciences, November 2015, Murfreesboro, TN.

Gabrielle Ashley and Andrienne Friedli, “Synthesis and Properties of a Donor-pi-acceptor Polyene Dye with an Isoindoline Donor,” 66th Southeastern Regional Meeting of the American Chemical Society. October 16 - 19, 2014, Nashville, Tennessee. Poster, SERMACS1614

Gabrielle Ashley, Ja'be Kiri, Andrienne Friedli, "The effect of template and amine substitution patterns on recognition in nanoporous films,” 66th Southeastern Regional Meeting of the American Chemical Society - SERMACS 2014. October 16 - 19, 2014, Nashville, Tennessee. Talk SERMACS, 1613

Samuel T. Mitchell, Mohammedali Gangardiwala, LaTeasha M. Hughes, Stephen M. Wright, and Andrienne C. Friedli, Fluorescence microscopy comparison of labeled protein/antibody on mesoporous and nonporous surfaces,” Tennessee Academy of Sciences, November 2011, Jackson TN.

Student Presentations on Campus (last 5 years)

John C. Lasseter, Muhammed O. Ali, Donnan J. Keith, and Andrienne C. Friedli
“Synthesis and Properties of an MTSU Blue Dye.” University-Wide Scholars Day, April 1, 2016, Middle Tennessee State University, Murfreesboro, TN. (Poster #208)

Gabrielle R. Ashley, Ja'be G. Kiri, and Andrienne C. Friedli. “A Comparison of Nanoimprinted Organosilicates for Selective Detection of 2,4-Dinitrotoluene,” University-

Wide Scholars Day, March 21, 2014, Middle Tennessee State University, Murfreesboro, TN. (Poster #200)

Donnan J. Keith, Robert W. Tilford, Dharmesh P. Patel, and Andrienne C. Friedli “Synthesis and Properties of a Donor-Pi-Acceptor Dye with a Pentylpiperidiny Donor.” University-Wide Scholars Day, March 21, 2014, Middle Tennessee State University, Murfreesboro, TN. (Poster #273)

Peter D. Haddix, William M. Robertson, and Andrienne C. Friedli, “Dye-Doped Polymer Thin Films to Test Nonlinear Fluorescence Enhancement.” University-Wide Scholars Day, March 21, 2014, Middle Tennessee State University, Murfreesboro, TN. (Poster #507)

Matthew A. Robinson and Andrienne C. Friedli. “Effect of Pyramidalization at Nitrogen in a Series of Donor-Acceptor Dyes,” University-Wide Scholars Day, March 21, 2014, Middle Tennessee State University, Murfreesboro, TN. (Poster #558)

Donnan J. Keith, Robert W. Tilford, and Andrienne C. Friedli “Toward Dyes with Pentylpiperidinyphenyl Donors.” MTSU Summer Research Celebration, July 26, 2013, Middle Tennessee State University, Murfreesboro, TN. (Poster #118)

Y. Ama C. Quao, Matthew A. Robinson, Honorio J. Gonzalez, and Andrienne C. Friedli “Dyeing to Do Chemistry: A Comparison of Solvatochromism in Four Donor-Pi-Acceptor Dyes.” MTSU Summer Research Celebration, July 26, 2013, Middle Tennessee State University, Murfreesboro, TN. (Poster #101)

Honorio J. Gonzalez, Patrick F. Greco, and Andrienne C. Friedli. “To Dye For: Synthesis and Characterization of 5-(4-Julolidinyl)-2,4-pentadienal and Derivatives, University-Wide Scholars Day, April 5, 2013, Middle Tennessee State University, Murfreesboro, TN. (Poster #15)

Ja'be Kiri and Andrienne C. Friedli “Surface-Bound Dendrimers As Explosives Sensor.” University-Wide Scholars Day, April 5, 2013, Middle Tennessee State University, Murfreesboro, TN. (Poster #480)

Matthew A. Robinson, Mohammedali Gandardiwala, and Andrienne C. Friedli. “The Effect of Vinyl Triethoxysilane on Mesoporous Silicate Scaffolds Designed for Bone Growth: An SEM Study, April 5, 2013, Middle Tennessee State University, Murfreesboro, TN. (Poster #423)

Peter D. Haddix, William M. Robertson, Andrienne C. Friedli. Dye-Tagged Mesoporous Silicate Thin Films to Test Nonlinear Fluorescence Enhancement, University-Wide Scholars Day, April 5, 2013, Middle Tennessee State University, Murfreesboro, TN. (Poster #425)

Angela J. Gootee and Andrienne C. Friedli “NMR Solvatochromism in Pentadienyl Dyes With Aromatic Donors and Thiobarbituric Acid Acceptors.” University-Wide Scholars Day, April 5, 2013, Middle Tennessee State University, Murfreesboro, TN. (Poster #29)

Peter Cothron and Andrienne Friedli, "Detection and Degradation of Chemical Weapons Models Using Mesoporous TiO₂ Films," University-Wide Scholars Day, April 8, 2011, Middle Tennessee State University, Murfreesboro, TN. (Poster G55)

LaTeasha Hughes, Andrew Yousef, Samuel Mitchell, Ja'be Kiri, and Andrienne Friedli, "Rich in Pores; Synthesis, Characterization, and Drug Delivery Applications of Mesoporous SiO₂ Films," University-Wide Scholars Day, April 8, 2011, Middle Tennessee State University, Murfreesboro, TN. (Poster U76)

Samuel Mitchell, LaTeasha Hughes, Andrew Yousef, Stephen Wright, and Andrienne Friedli, "Is Porous Silicate Films a Superior Medium for Detection of Protein-Antibody Binding Events?" University-Wide Scholars Day, April 8, 2011, Middle Tennessee State University, Murfreesboro, TN. (Poster U5)

Mohammedali Gangardiwala, Joyce L. Miller, and Andrienne C. Friedli, "Mesoporous Silicate: Potential Scaffolding for Bone Growth," University-Wide Scholars Day, April 8, 2011, Middle Tennessee State University, Murfreesboro, TN. (Poster G31)