

VITA

Michael Harmata

Personal Data

Birth Date: September 22, 1959
Birth Place: Chicago, Illinois
Address: Department of Chemistry
University of Missouri-Columbia
Columbia, Missouri 65211
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Marital Status: Married to Ms. Judy L. Snyder

Education

Ph.D., 1985, Chemistry, University of Illinois, Urbana
Mentor: Scott E. Denmark
A.B., 1980, Chemistry, University of Illinois, Chicago

Professional Experience

2000-present Norman Rabjohn Distinguished Professor of Chemistry
University of Missouri-Columbia
1998-2000 Professor of Chemistry
University of Missouri-Columbia
1992-1998 Associate Professor of Chemistry
University of Missouri-Columbia
1986-1992 Assistant Professor of Chemistry
University of Missouri-Columbia
1985-1986 NIH Postdoctoral Fellow
Stanford University (Mentor: Paul A. Wender)
1984-1985 Graduate Research Assistant in Chemistry
University of Illinois-Urbana
1981-1984 Eastman Kodak Fellow in Chemistry
University of Illinois-Urbana
1980-1981 Graduate Teaching Fellow in Chemistry
University of Illinois-Urbana
1980 Summer research under the direction of Professor Jacques Kagan; University
of Illinois-Chicago
1979 Summer research under the direction of Professor Jacques Kagan; University
of Illinois-Chicago

1978 National Science Foundation Undergraduate Research Participant
(University of Illinois-Chicago)

Professional and Honorary Societies

American Chemical Society, International Society of Heterocyclic Chemistry, Phi Beta Kappa, Phi Kappa Phi, Sigma Xi, Gesellschaft Deutscher Chemiker, US-JSPS Fellows Alumni Association

Honors and Awards

2015-2016 Leadership Development Program, University of Missouri System
2015 Fuldner Faculty Fellow, University of Missouri-Columbia
2014 Invited Guest Professor, University of Giessen
2014 Fuldner Faculty Fellow, University of Missouri-Columbia
October 21, 2011 Sigma-Aldrich Lectureship, University of Nevada-Reno
2011 Invited Guest Professor, University of Strasbourg
2011 Japan Society for the Promotion of Science Fellow
2010 Prose Award-Honorable Mention-for *Silver in Organic Chemistry*
2010 Adjunct Professor, International Institute of Nano and Molecular Medicine
2010-present Liebig Professorship, University of Giessen
2008 Research Fellowship, Alexander von Humboldt Foundation (Reinvitation)
2006 Big 12 Faculty Fellowship, University of Texas-Austin
2000 Chair, Gordon Research Conference on Organic Reactions and Processes
2000 Norman Rabjohn Distinguished Professorship, University of Missouri-Columbia
1998-99 Research Fellowship, Alexander von Humboldt Foundation
1997 Arts and Science Student Government "Blue Chalk" Advising Award
1985-1986 NIH Postdoctoral Fellowship, Stanford University
1981-1984 Eastman Kodak Fellowship in Chemistry, University of Illinois-Urbana
1980-1981 University Teaching Fellowship in Chemistry, University of Illinois-Urbana
1980 Graduation with highest distinction in chemistry and college honors
1980 American Institute of Chemists Award (Outstanding Senior in Chemistry)
1979 Benjamin B. Freud Memorial Award (Outstanding Sophomore in Chemistry)
1977-1981 Campbell Soup Company Scholarship

Grants and Contracts

National Science Foundation-RET Supplement
"Towards Catalytic, Asymmetric (4+3)-Cycloadditions"
\$8,742 Grant Period: 7/26/16-5/31/18

National Science Foundation
"Towards Catalytic, Asymmetric (4+3)-Cycloadditions"
\$435,000 Grant Period: 6/15/15-5/31/18

National Science Foundation
“Advances in [4+3]-Cycloaddition Chemistry”
\$140,000 Grant Period: 9/1/12-8/31/13

Production of F-18-FIAU (Co-PI, Cathy S. Cutler, PI)
Biomedical Valley Discoveries, Inc.
\$98,261 Grant Period: 07/05/12-3/31/14

Research Projects for Interrogations of Biological Systems: Training for the Development of Novel Radiotracers (Contributor; Silvia S. Jurisson, PI)
Department of Energy
2,112,001 Grant Period: 09/01/11-08/31/13—(no cost extension until 12/31/14)

National Science Foundation
“Real and Formal Pericyclic Reactions of Reactive Intermediates”
\$420,000 Grant Period: 9/1/09-8/31/12

ERL Incorporated
“Routes To High Energy Materials”
\$87,777 Grant Period: 12/1/06-11/30/07 (no cost extension until 5/31/09)

National Science Foundation
“[4+3]-Cycloaddition/Quasi-Favorskii Processes”
\$390,000 Grant Period: 8/1/06-7/31/09

National Institutes of Health
“Pseudopteroxazole and Related Antitubercular Agents”
1 R01 AI59000-01A1
\$780,939 Grant Period: 12/1/04-11/30/07 (no cost extension until 11/30/08)

American Chemical Society-Petroleum Research Fund-Type AC
“Benzothiazines and Bis-Benzothiazines as Chiral Ligands”
\$80,000 Grant Period: 9/04-8/06

National Science Foundation
"Novel Chemistry of Halogenated Cyclic Ketones"
\$408,000 Grant Period: 4/1/03-3/31/06 (no cost extension until 3/31/07)

American Chemical Society-Petroleum Research Fund-Type AC
“Benzothiazines as Chiral Ligands and Templates”
\$80,000 Grant Period: 9/02-8/04

Travel Funds-Faculty International Travel Fund
Ninth International Symposium on Molecular Recognition
\$1,500 July, 2002

NIH

"Benzannulation Approach to Biaryl Ethers"

\$163,325 Grant Period: 5/1/01-4/30/02 (No cost extension until 4/30/03)

American Chemical Society-Petroleum Research Fund-Type AC

"Synthesis and Chemistry of Enantiomerically Pure 2,1-Benzothiazines"

\$60,000 Grant Period: 5/00-8/02 (No cost extension until 8/03)

National Science Foundation

"Halogenated Cyclic Allylic Cations in 4+3 Cycloadditions"

\$417,000 Grant Period: 2/15/00-1/31/03

University of Missouri Research Council

Research Leave Travel Funds

\$1,200 Grant Period: 8/98-6/99

Monsanto

"A Unique Approach to Benzothiazines"

\$54,000 Grant Period: 11/1/97-10/31/98 (no cost extension until 6/99)

American Chemical Society - Petroleum Research Fund - Type AC

"Vinyl Oxocarbenium Ions for Asymmetric 4+3 Cycloadditions"

\$50,000 Grant Period: 9/1/97-8/31/99 (no cost extension until 8/31/00)

National Institutes of Health (Contributor)

"Upgrade of a 300 MHz Wide-Bore NMR Spectrometer"

\$54,000 Grant Period: 5/1/97-4/30/98

National Science Foundation

"Cycloaddition Chemistry of Cyclic Oxyallylic Cations"

\$295,100 Grant Period: 1/1/97-12/31/99 (no cost extension until 6/30/00)

University of Missouri Research Board

"New Ligands for Asymmetric Catalysis"

\$21,300 Grant Period: 8/1/96-10/31/97

National Science Foundation (Contributor)

"Upgrade of a 300 MHz Wide-Bore NMR Spectrometer"

\$184,800 Grant Period: 7/15/96-7/14/97

Travel Funds-Faculty International Travel Fund

Ninth International Symposium on Molecular Recognition

\$700 August, 1996

Summer Research Fellowship - University of Missouri-Columbia

"A New Reaction of Sulfonimidoyl Chlorides"

\$9,000 Grant Period: 6/1/96-8/31/96

American Chemical Society - Petroleum Research Fund - Type AC

"Asymmetric 4+3 Cycloadditions"

\$50,000 Grant Period: 9/1/95-8/31/97

University of Missouri Research Board

"DNA Active Agents: Analogues of Echinomycin"

\$42,000 Grant Period: 6/1/94-5/31/96 (Extended to 12/31/96)

National Science Foundation

"Further Studies of Allylic Cation Cycloadditions"

\$212,800 Grant Period: 1/1/93-12/31/95

Elsa U. Pardee Foundation

Developing DNA Binding Agents: A Unique Bis-Intercalator

\$51,680 Grant Period: 1/1/92-6/30/93

Monsanto Agricultural Company

Unrestricted Grant

\$10,000 Grant Period: 10/91

American Chemical Society - Petroleum Research Fund - Type AC

"Synthesis of the Antiviral Agent (-)-Reiswigen A"

\$40,000 Grant Period: 9/1/91-8/31/94

National Science Foundation

"Intramolecular 4+3 Cycloadditions"

\$130,400 Grant Period: 1/1/90-12/31/92

National Science Foundation (Contributor)

"Acquisition of an NMR Spectrometer"

\$230,000 Grant Period: 7/92-6/97

National Science Foundation (Contributor)

"Purchase of an X-ray Diffraction System"

\$220,000 Grant Period: 7/90-6/95

Summer Research Fellowship - University of Missouri-Columbia

"Model Studies for the Synthesis of Reiswigen A"

\$6105 Grant Period: 6/1/89-8/31/89

Weldon Spring Grant

"Synthetic Studies on Medicinally Important Heterocycles"

\$24,625 Grant Period: 6/1/88-12/31/89

American Chemical Society - Petroleum Research Fund - Type G
"Synthetic Applications of Sulfoximidoyl Halides"
\$18,000 Grant Period: 2/1/88-8/31/90

Summer Research Fellowship - University of Missouri-Columbia
"A Stereocontrolled Route to β -Lactams Related to Thienamycin"
\$4,250 Grant Period: 6/1/87- 8/31/87

Publications (*Not Refereed)

204. "(4+3)-Cycloaddition Reactions of *N*-Alkyl Oxidopyridinium Ions." Chencheng Fu, Nestor Lora, Patrick L. Kirchhoefer, Dong Reyoul Lee, Erich Altenhofer, Charles L. Barnes, Natasha L. Hungerford, Elizabeth H. Krenske, and Michael Harmata. *Angewandte Chemie, International Edition* **2017**, *56*, 0000.
203. "Comments on a CIP rule conundrum: Why I think I'm right." Michael Harmata. *Tetrahedron Letters* **2017**, *58*, 3687-3689.
202. "An Asymmetric, Catalytic (4+3) Cycloaddition Reaction of Cyclopentenyl Oxyallylic Cations." Michael Topinka, Kerstin Zawatzky, Charles L. Barnes, Christopher J. Welch, and Michael Harmata. *Organic Letters* **2017**, *19*, 4106-4109.
201. Electrophilic Trapping of α -Lithio Dienyl Sulfones. Carissa S. Hampton and Michael Harmata. *Tetrahedron Letters* **2017**, *58*, 2530-2532.
200. "In vivo Transport of Three Radioactive [¹⁸F]-Fluorinated Deoxysucrose Analogs by the Maize Sucrose Transporter ZmSUT1." Thu M. Tran, Carissa S. Hampton, Tom W. Brossard, Michael Harmata, J. David Robertson, Silvia S. Jurisson, and David M. Braun. *Plant Physiology and Biochemistry* **2017**, *115*, 1-11.
199. "Preparation of Propargylic Sulfinates and Their [2,3]-Sigmatropic Rearrangement to Allenic Sulfones." Rama Rao Tata, Carissa S. Hampton, and Michael Harmata. *Advanced Synthesis and Catalysis* **2017**, *359*, 1232-1241.
198. "Silver-Catalyzed Cyclization of Sulfonyl Allenes to Dihydrofurans." Rama Rao Tata and Michael Harmata. *Organic Letters* **2016**, *18*, 5684-5687.
- 197.* "Metal-Catalyzed (4+3) Cycloadditions Involving Allylic Cations." Darin E. Jones and Michael Harmata. *Science of Synthesis, Metal-Catalyzed Cyclization Reactions 2* **2016**, 319-382.
196. "Synthesis of Tröger's Base Derived Ligands: PHZ-Derivatized Ligand with Pendant Donor Arms." Carissa S. Hampton and Michael Harmata. *Tetrahedron* **2016**, *72*, 6064-6077.
195. "Mechanistic Aspects of the Palladium-Catalyzed Isomerization of Allenic Sulfones to 1-Arylsulfonyl 1,3-Dienes." Carissa S. Hampton and Michael Harmata. *The Journal of Organic Chemistry* **2016**, *82*, 4807-4822.
194. "Synthesis, Characterization, and In Vitro Evaluation of New ^{99m}Tc/Re(V)-Cyclized Octreotide Analogues: An Experimental and Computational Approach." Yawen Li, Lixin Ma, Vikram Gaddam, Fabio Gallazzi, Heather M. Hennkens, Michael Harmata, Michael R. Lewis, Carol A. Deakne, and Silvia S. Jurisson. *Inorganic Chemistry* **2016**, *55*, 1124-1133.
193. "Dilithiation of A 2,1-Benzothiazine." Nathan L. Calkins, Carissa S. Hampton and Michael Harmata. *HETEROCYCLES* **2016**, *93*, 411-421.

192. “Mechanistic Aspects of the Phosphine-Catalyzed Isomerization of Allenic Sulfones to 2-Arylsulfonyl-1,3-Dienes.” Carissa S. Hampton and Michael Harmata. *The Journal of Organic Chemistry*, **2015**, *81*, 12151-12158.
191. “A Protocol for the *exo*-mono and *exo,exo*-bis Functionalization of the Diazocine Ring of Tröger’s Base.” Sami Dawaigher, Kristoffer Månsson, Erhad Ascic, Josep Artacho, Roger Mårtensson, Nagarajan Loganathan, Ola F. Wendt, Michael Harmata, Victor Snieckus, and Kenneth Wärnmark. *The Journal of Organic Chemistry*, **2015**, *81*, 12006-12014.
- 190.* “The Quasi-Favorskii Rearrangement.” Michael Harmata. In *Molecular Rearrangements in Organic Synthesis*; Rojas, C. M., Ed.; John Wiley & Sons: Hoboken, 2015; Chapter 7.
189. “Suzuki-Miyaura Coupling Reactions of Conjunctive Reagents: 2-Borylated Allylic Sulfones.” Erich F. Altenhofer and Michael Harmata. *The Journal of Organic Chemistry*, **2015**, *80*, 8168–8174.
188. “The Resolution and Determination of the Absolute Configuration of a Twisted Bis-Lactam Analogue of Tröger’s Base: A Comparative Spectroscopic and Computational Study.” Ögmundur Vidar Rúnarsson, Christian Benkhäuser, Niels Johan Christensen, Josep Artacho Ruiz, Erhad Ascic, Michael Harmata, Victor Snieckus, Kari Rissanen, Peter Fristrup, Arne Lützen, and Kenneth Wärnmark. *The Journal of Organic Chemistry*, **2015**, *80*, 8142–8149.
187. “A Synthesis of Dihydrofuran-3(2H)-ones.” Rama Rao Tata and Michael Harmata. *The Journal of Organic Chemistry*, **2015**, *80*, 6839–6845.
186. “Radiosynthesis of 6'-deoxy-6'[¹⁸F]fluorosucrose via Automated Synthesis and its Utility to Study *in vivo* Sucrose Transport in maize *Zea mays* Leaves.” David Rotsch, Tom Brossard, Saadia Bihmidine, Weijiang Ying, Vikram Gaddam, Michael Harmata, J. David Robertson, Michael Swyers, Sylvia Jurisson, and David M. Braun. *PLOS ONE* **2015** *10*(5): e0128989. doi:10.1371/journal.pone.0128989.
185. “[2,3]-Sigmatropic Rearrangement of Propargylic Sulfinates by a Pale Cu¹-USY Zeolite and Copper Salts. Carissa S. Hampton and Michael Harmata. *Tetrahedron Letters* **2015**, *56*, 3243-3245.
184. “Radical Isomerization of Borylated Allylic Sulfones.” Erich Altenhofer and Michael Harmata. *Tetrahedron Letters* **2015**, *56*, 3176-3178.
183. “[2,3]-Sigmatropic Rearrangement of Propargylic Sulfinates by a Pale Ag¹-USY Zeolite and Silver Salts.” Carissa S. Hampton and Michael Harmata. *Advanced Synthesis and Catalysis* **2015**, *357*, 549-552.
182. “Computational Analysis of the Stereochemical Outcome in the Imidazolidinone-Catalyzed Enantioselective (4 + 3)-Cycloaddition Reaction.” Elizabeth Krenske, Kendall Houk and Michael Harmata. *The Journal of Organic Chemistry* **2015**, *80*, 744–750.
181. “A Synthesis of 6-Deoxy-6-Fluorosucrose Suitable for PET Applications.” Xuefeng Gao, Vikram Gaddam and Michael Harmata. *Carbohydrate Research* **2014**, *400*, 14-18.
180. “Catalytic Generation of Vinylthionium Ions. (4+3)-Cycloadditions and Friedel-Crafts Alkylations.” Michael Topinka, Rama Rao Tata and Michael Harmata. *Organic Letters* **2014**, *16*, 4476–4479.
179. “A New Synthesis of α' -Hydroxydienones.” Rama Rao Tata, Carissa S. Hampton, Erich F. Altenhofer, Michael Topinka, Weijiang Ying, Xuefeng Gao and Michael Harmata. *Chemistry A European Journal* **2014**, *20*, 13547–13550.
178. “Regiodivergent Synthesis of 1- and 2-Arylsulfonyl-1,3-Dienes.” Carissa S. Hampton and Michael Harmata. *Organic Letters* **2014**, *16*, 1256–1259.
177. “Synthesis of Functionalized Cyclic Boronates.” Erich Altenhofer and Michael Harmata.

- Organic Letters* **2014**, *16*, 1-4.
176. "Formation and Ring-Opening of 8-Oxabicyclo[3.2.1]oct-6-en-3-ones from (4+3)-Cycloaddition of Furan and Chlorocyclopentanone Derivatives." Xuefeng Gao and Michael Harmata. *Tetrahedron* **2013**, *69*, 7675–7682.
 175. "Chemical Synthesis of 1'-Deoxy-1'-Fluorosucrose." Weijiang Ying, Vikram Gaddam and Michael Harmata. *Organic Letters* **2013**, *15*, 2723–2725.
 - 174.* "Application of the [4+3]-Cycloaddition Reaction to the Synthesis of Natural Products." Darin E. Jones and Michael Harmata. In *Methods and Applications of Cycloaddition Reactions in Organic Synthesis*; Nishiwaki, N., Ed.; Wiley: New York, 2014; Chapter 19.
 173. "Further Studies of Benzothiazine Metalation." Nathan L. Calkins and Michael Harmata. *Synthesis* **2013**, 1785-1790.
 172. "Generation and Alkylation of 2-Boryl Allylic Sulfone Anions." Erich F. Altenhofer and Michael Harmata. *Chemical Communications* **2013**, *49*, 2365-2367.
 171. "Synthesis Of 6'-Deoxy-6'-Fluorosucrose." Vikram Gaddam and Michael Harmata. *Carbohydrate Research* **2013**, *369*, 38-41.
 170. "Demethylenation of Tröger's Bases with Concomitant Hydrazine Formation." Xuefeng Gao, Carissa S. Hampton and Michael Harmata. *European Journal of Organic Chemistry* **2012**, 7053-7056.
 - 169.* "C–N Bond Forming Reactions of Sulfonamides, Sulfoximines, and Other Nitrogen Nucleophiles." J. Duan, H. Chen, Xuechuan Hong and Michael Harmata. *Science of Synthesis* **2012**, *2*, 255-282.
 168. "Tröger's Base Twisted Amides: Endo Functionalization and Synthesis of an Inverted Crown Ether." Kenneth Wärnmark, Victor Snieckus, Victor; Michael Harmata, Josep Artacho, Erhad Asic, Toni Rantanen, Carl-Johan Wallentin, Sami Dawaigher and Karl-Erik Bergquist. *Organic Letters* **2012**, *14*, 4706-4709.
 167. "C-H Activation in *S*-Alkenyl Sulfoximines: An Endo 1,5-Hydrogen Migration" Xuefeng Gao, Vikram Gaddam, Erich Altenhofer, Rama Rao Tata, Zhengxin Cai, Nattawut Yongpruksa, Aswin K. Garimallaprabhakaran and Michael Harmata. *Angewandte Chemie International Edition* **2012**, *51*, 7016-7019.
 166. "Total Synthesis of the Terpenoid Buddledone A: 11-Membered Ring-Closing Metathesis." Zhengxin Cai, Nattawut Yongpruksa and Michael Harmata. *Organic Letters* **2012**, *14*, 1661–1663.
 165. "Formation of a Benzothiazine via the Reaction of *ortho*-halo Sulfoximines with Copper Salts." Aswinkumar Garimallaprabhakaran, Xuechuan Hong and Michael Harmata. *ARKIVOC* **2012**, 119-128.
 164. "Twisted Amide Analogues of Tröger's Base." Josep Artacho, Erhad Ascic, Toni Rantanen, Josefine Karlsson, Carl-Johan Wallentin, Ruiyao Wang, Ola F. Wendt, Michael Harmata, Victor Snieckus and Kenneth Wärnmark. *Chemistry A European Journal* **2012**, *18*, 1038-1042.
 163. "Benzothiazines in Organic Synthesis. Synthesis of Fluorescent 7-Amino-2,1-Benzothiazines." Nattawut Yongpruksa, Siddharth Pandey, Gary A. Baker and Michael Harmata. *Organic and Biomolecular Chemistry* **2011**, 7979-7982.
 162. "Carbon to Carbon Anion Relay Chemistry: Facile Generation of Substituted Allyllithium Species." Pinguan Zheng, Zhengxin Cai, Aswinkumar Garimallaprabhakaran, Parham Rooshenas, Peter R. Schreiner, and Michael Harmata. *European Journal of Organic Chemistry* **2011**, 5255-5260.

161. "Benzothiazines in Organic Synthesis. An Approach to Floresolide B." Yugang Chen and Michael Harmata. *Tetrahedron Letters* **2011**, 52, 4069-4071.
160. "Efficient Palladium-Catalyzed *N*-Arylation of a Sulfoximine with Aryl Chlorides." Nattawut Yongpruksa, Nathan L. Calkins and Michael Harmata. *Chemical Communications* **2011**, 47, 7665-7667.
159. "Silver-Catalyzed Rearrangement of Propargylic Sulfinates: Synthesis Of Allenic Sulfones." Michael Harmata, Zhengxin Cai and Chaofeng Huang. *Organic Syntheses* **2011**, 88, 309-316.
158. "Thiol-Activated DNA Damage by α -Bromo-2-cyclopentenone." Mostafa I. Fekry, Nathan E. Price, Hong Zang, Chaofeng Huang, Michael Harmata, Paul Brown, J. Scott Daniels, and Kent S. Gates. *Chemical Research in Toxicology* **2011**, 24, 217-228.
157. "Boric Acid-Mediated *N*-Acylation of Sulfoximines." Aswinkumar Garimallaprabhakaran and Michael Harmata. *Synlett* **2011**, 361-364.
156. Oxidation of 4-Methoxyanilines to 1,4-Benzoquinones using Ceric Ammonium Nitrate (CAN)." Yugang Chen, Weijiang Ying and Michael Harmata. *Tetrahedron Letters* **2011**, 52, 480-482.
155. "Studies Directed Towards the Synthesis of Hamigeran B: A Catalytic Oxidative Cyclization." Zhengxin Cai and Michael Harmata. *Organic Letters* **2010**, 12, 5668-5670.
154. "Toward the Total Synthesis of Elisapterosin B: An Hg(OTf)₂-Promoted Diastereoselective Intramolecular Friedel-Crafts Alkylation." Weijiang Ying, Charles L. Barnes and Michael Harmata. *Tetrahedron Letters* **2011**, 52, 177-180.
153. "The (4+3)-Cycloaddition Reaction: Heteroatom-Substituted Allylic Cations as Dienophiles." Michael Harmata. *Chemical Communications* **2010**, 46, 8904-8922.
152. "The (4+3)-Cycloaddition Reaction: Simple Allylic Cations as Dienophiles." Michael Harmata. *Chemical Communications* **2010**, 46, 8886-8903.
151. "Origin of Stereoselectivity in the (4+3) Cycloadditions of Chiral Alkoxy Siloxyallyl Cations with Furan." Eliabeth H. Krenske, Kendall N. Houk and Michael Harmata. *Organic Letters* **2010**, 12, 444-447.
- 150.* "An Approach to the Synthesis of Vinigrol." Michael Harmata and Nathan L. Calkins. *Chemtracts* **2009**, 22, 205-209.
- 149.* "The First Synthesis of (+)-Cortistatin A." Michael Harmata and Nathan L. Calkins. *Chemtracts* **2009**, 22, 182-187.
148. "A Gold-Catalyzed [4+3]-Cycloaddition of Functionalized Dioxins." Michael Harmata and Chaofeng Huang. *Tetrahedron Letters*, **2009**, 50, 5701-5703.
147. "Benzothiazines in Synthesis. Formal Total Synthesis of Pseudopteroxazole." Michael Harmata, Zhengxin Cai and Yugang Chen. *Journal of Organic Chemistry*, **2009**, 74, 5559-5561.
146. "Benzothiazines in Synthesis. Further Studies of the Intramolecular, Stereoselective Addition of Sulfonimidoyl Carbanions to α,β -Unsaturated Functional Groups." Michael Harmata, Kanok-an Rayanil, Vinson Espejo and Charles L. Barnes. *Journal of Organic Chemistry*, **2009**, 74, 3214-3216.
145. "Benzothiazines in Synthesis. Eight-Membered Ring Formation in an Intramolecular Friedel-Crafts Reaction." Michael Harmata, Weijiang Ying and Charles L. Barnes. *Tetrahedron Letters* **2009**, 50, 2326-2328.
144. "A Rigid GABA Analog from a [4+3]-Cycloaddition." Paitoon Rashatasakhon and Michael Harmata. *Tetrahedron Letters* **2009**, 50, 2109-2110.

143. "Control Elements in Dynamically Determined Selectivity on a Bifurcating Surface." Jacqueline B. Thomas, Jack R. Wass, Michael Harmata and Daniel A. Singleton. *Journal of the American Chemical Society* **2008**, *130*, 14544-14555.
142. "An Interrupted [4+3]-Cycloaddition Reaction: A Hydride Shift (Ene Reaction) Intervenes." Michael Harmata, Chaofeng Huang, Parham Rooshenas and Peter R. Schreiner. *Angew. Chem., Int. Ed.* **2008**, 8696-8699.
141. "Benzothiazines in Organic Synthesis. An Approach to the Synthesis of seco-Pseudopteroxazole." Michael Harmata and Pinguang Zheng. *Heterocycles* **2009**, *77*, 279-291.
140. "The Synthesis of *N*-TBS, *S*-Alkynyl Sulfoximines." Michael Harmata, Chaofeng Huang, Yugang Chen, Pinguang Zheng, Xuefeng Gao, Weijiang Ying. *Synlett* **2008**, 2051-2055.
139. "Silver-Catalyzed Preparation of Oxazolines from *N*-Propargylamides." Michael Harmata and Chaofeng Huang. *Synlett* **2008**, 1399-1401.
138. "Benzothiazines in Synthesis. Studies Directed Toward the Synthesis of Erogorgiaene." Michael Harmata, Xuechuan Hong and Peter R. Schreiner. *Journal of Organic Chemistry*, **2008**, *73*, 1290-1296.
137. "Silver-Catalyzed Rearrangement of Propargylic Sulfinates to Allenic Sulfones." Michael Harmata and Chafeng Huang. *Advanced Synthesis and Catalysis*, **2008**, 972-974.
- 136.* "Recent Progress in the Chemistry of 2,1-Benzothiazines." Michael Harmata and Xuechuan Hong. *Progress in Heterocyclic Chemistry* **2008**, *19*, 1-43.
135. Benzothiazines in Synthesis: a Route to Chiral Cyclobutanes." Michael Harmata, Weijiang Ying, Xuechuan Hong and Charles L. Barnes. *Synthesis*, **2008**, 594-604.
134. "A Stereospecific Synthesis of Chiral Cyclic Sulfinamides." Michael Harmata and Pinguang Zheng. *Organic Letters* **2007**, *10*, 5251-5253.
133. "Benzothiazines in Organic Synthesis. Stereoselectivity in the Intermolecular Michael Addition Reactions of Benzothiazines." Michael Harmata, Yugang Chen and Charles L. Barnes. *Organic Letters* **2007**, *10*, 4701-4704.
132. "Diastereoselectivity in an Electrocyclization Reaction of Cyclopentadienones." Michael Harmata, Pinguang Zheng, Peter R. Schreiner and Armando Navarro-Vázquez. *Tetrahedron Letters* **2007**, *48*, 5919-5922.
- 131.* "Total Synthesis of Welwitindolinone A." Pinguang Zheng and Michael Harmata. *Chemtracts* **2007**, *20*, 20-31.
130. "Benzothiazines in Organic Synthesis. The Preparation of Enantiomerically Pure 4-Substituted Quinolones." Michael Harmata and Xuechuan Hong. *Organic Letters* **2007**, *10*, 2701-2704.
129. "Intramolecular Dimerizations of Cyclopentadienones." Michael Harmata and Kanok-on Rayanil. *Synthesis* **2007**, 2370-2378.
128. "Addition of Functionalized Nucleophiles to a Bridgehead Bromoketone." Michael Harmata and Sumrit Wacharasindhu. *Synthesis* **2007**, 2365-2369.
127. "Palladium-Catalyzed Cross-Coupling Reaction of a Sulfoximine with Aryl Dichlorides under Microwave Irradiation." Michael Harmata and Xuechuan Hong. *Synlett* **2007**, 969-973.
126. "An Expedient Synthesis of Sulfinamides from Sulfonyl Chlorides." Michael Harmata, Pinguang Zheng, Chaofeng Huang, Maria G. Gomes, Weijiang Ying, Kanok-On Ranyanil, Gayatri Balan, and Nathan L. Calkins. *Journal of Organic Chemistry* **2007**, *72*, 683-685.

- 125.* “2,2-Diheteroatom-Substituted Aldehydes.” Michael Harmata. *Science of Synthesis* **2007**, 25, 441-461.
124. “A Synthesis of 2,3-Dihydro-4-pyridones.” Michael Harmata and Dong Reyoul Lee. *ARKIVOC* **2007**, 12, 91-103.
- 123.* “Chiral Nitrenes From Sulfonylimides.” Paitoon Rashatasakhon and Michael Harmata. *Chemtracts* **2006**, 19, 143-151.
122. “[4+3]-Cycloadditions of Some Allylic Dioxolanes.” Michael Harmata, James A. Brackley III and Charles L. Barnes. *Tetrahedron Letters* **2006**, 47, 8151-8155.
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3. *Advanced Organic Chemistry (AP)* by Reinhard Brückner; played a major role in the management of the English translation of this book.
2. *Advances in Cycloaddition*; Harmata, M. Ed.; JAI: Stamford, 1999; Vol. 6.
1. *Advances in Cycloaddition*; Harmata, M. Ed.; JAI: Stamford, 1999; Vol. 5.

Presentations

74. "New Catalytic, Asymmetric (4+3)-Cycloaddition Reaction." Michael Topinka, Kerstin Zawatzky, Christopher J. Welch, and Michael Harmata. Paper #72 (ORGN) presented at the 253rd ACS National Meeting & Exposition, San Francisco, CA, April 2-8, 2017.
73. "Preparation of Propargylic Sulfinates and Their [2,3]-Sigmatropic Rearrangement to Allenic Sulfones." Carissa S. Hampton, Rama Rao Tata, and Michael Harmata. Paper #407 (ORGN) presented at the 250th ACS National Meeting & Exposition, Boston, MA. August 16-20, 2015.
72. "Synthesis of 5, 6, 7, and 8-Membered Oxacycles by Silver and Gold Catalysis." Rama Rao Tata and Michael Harmata. Paper #437 (ORGN) presented at the 249th National Meeting of the American Chemical Society, Denver, March 22-26, 2015.

71. "Synthesis of Furan-3(2H)-ones." Rama Rao Tata and Michael Harmata. Paper #458 presented at the 49th Midwest Regional Meeting of the American Chemical Society, Columbia, November 12 - 15, 2014.
70. "Mechanistic Studies and Scope of the Regiodivergent Synthesis of 1- and 2-Arylsulfonyl 1,3-Dienes." Carissa S. Hampton and Michael Harmata. Paper #261 presented at the 49th Midwest Regional Meeting of the American Chemical Society, Columbia, November 12-15, 2014.
69. "Silver-Catalyzed Synthesis of Substituted Dihydrofurans." Rama Rao Tata and Michael Harmata. Paper #253 (ORGN) presented at the 246th National Meeting of the American Chemical Society, Indianapolis, September 8-12, 2013.
68. "Regiodivergent Synthesis of 1- and 2-Arylsulfonyldienes." Carissa S. Hampton and Michael Harmata. Paper #251 (ORGN) presented at the 213th National Meeting of the American Chemical Society, Indianapolis, September 8-12, 2013.
67. "Synthesis and Chemistry of Bifunctional Organoboron Species." Erich Altnofer and Michael Harmata. Paper # 288 (ORGN), presented at the 243rd National Meeting of the American Chemical Society, San Diego, March 25-29, 2012.
66. "Diels-Alder Reactions of Cyclopentadienones Generated from the Derivatives of 2-Hydroxy 3-carboalkoxycyclopentenones." Michael Harmata and Aswin K Garimallaprabhakaran. Paper # 301 (ORGN), presented at the 238th ACS National Meeting, Washington D.C., August 16-20, 2009.
65. Progress Toward the Synthesis of Hamigeran B." Michael Harmata and Zhengxin Cai. Paper #36 (ORGN) presented at the 237th ACS National Meeting, Salt Lake City, March 22-26, 2009.
64. "Silver-Catalyzed Rearrangement Reactions." Michael Harmata and Chaofeng Huang. Paper #470 (ORGN) presented at the 237th National Meeting of the American Chemical Society, Salt Lake City, March 22-26, 2009.
63. "Towards Synthesis of New Tröger's Base Derivatives." Erhad Ascic, Michael Harmata, Kenneth Wärnmark, Kristoffer Mansson and Victor Snieckus. Paper #125 presented at the 37th Northeast Regional Meeting of the American Chemical Society, Burlington, June 29-July 2, 2008.
62. "Benzothiazines In Synthesis: a Study of Intramolecular Friedel-Crafts Alkylation." Michael Harmata and Weijiang. Paper #038 (ORGN) presented at the 236th ACS National Meeting, Philadelphia, August 17-21, 2008.
61. "Michael Addition Reactions of Chiral Benzothiazines." Michael Harmata and Yugang Chen. Paper #092 (ORGN) presented at the 236th ACS National Meeting, Philadelphia, August 17-21, 2008.
60. An Approach to Pseudopteroxazole." Michael Harmata, Zhengxin Cai, and Yugang Chen. Paper #506 (ORGN) presented at the 235th ACS National Meeting, New Orleans, April 6-10, 2008.
59. "Silicon-Accelerated Alkylation of an Aryl Organolithium." Michael Harmata and Pinguan Zheng. Paper #782 (ORGN) presented at the 233rd National Meeting of the American Chemical Society, Chicago, March 25-29, 2007.
58. "Toward the synthesis of seco-pseudopteroxazole." Michael Harmata and Pinguan Zheng. Paper #573 (ORGN) presented at the 233rd National Meeting of the American Chemical Society, Chicago, March 25-29, 2007.
57. "Michael Addition Reactions of Chiral Benzothiazines." Michael Harmata and Yugang

- Chen. Paper # 602 (ORGN) presented at the 233rd ACS National Meeting, Chicago, March 25-29, 2007.
56. "Intramolecular cycloadditions of cyclopentadienones." Michael Harmata and Kanok-on Rayanil. Paper #195 (ORGN) presented at the 231st ACS National Meeting, Atlanta, March 26-30, 2006.
 55. "Deantiaromatization as a Driving Force in an Electrocyclic Reaction." Michael Harmata, Pinguan Zheng, Peter R. Schreiner and Armando Navarro-Vazquez. Paper #194 (ORGN) presented at the 231st ACS National Meeting, Atlanta, March 26-30, 2006.
 54. "Diels-Alder Reactions of a Cyclopentadienone." Michael Harmata and Maria G. Gomes. Paper #193 (ORGN) presented at the 231st ACS National Meeting, Atlanta, March 26-30, 2006.
 53. "Benzothiazines in synthesis: Synthesis of Enantiomerically Pure 3,4-Dihydroquinolin-2(1H)-ones. Michael Harmata and Xuechaun Hong. Paper #029 (ORGN) presented at the 231st ACS National Meeting, Atlanta, March 26-30, 2006.
 52. "Generation of 3-Bromocyclopentadienone and Some Chemistry of its Dimerization Product." Michael Harmata and Soo Yeun Kim. Paper #20 presented at the 39th Midwest Regional Meeting of the American Chemical Society, Manhattan, October 20-24, 2004.
 51. "Diels-Alder Reaction of a Cyclopentadienone." Michael Harmata and Maria G. Gomes. Paper #19 presented at the 39th Midwest Regional Meeting of the American Chemical Society, Manhattan, October 20-24, 2004.
 50. "Synthesis of the Carbocyclic Core fo Tricycloclavulone From a Simple 4+3 Cycloadduct." Michael Harmata and Sumrit Wacharasindhu. Paper #562 (ORGN) presented at the 228th meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 49. "Computational and Experimental Studies of the Mechanism and Scope of the Retro-Nazarov Reaction. Michael Harmata, Peter R. Schreiner, Dong Reyoul Lee and Patrick Kirchoefer. Paper #332 (ORGN) presented at the 228th meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 48. "Cleavage of Enol Ethers Using a Sequence Including a Retro-Nazarov Reaction." Michael Harmata and Dong Reyoul Lee. Paper #331 (ORGN) presented at the 228th meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 47. "Benzothiazines in Synthesis: Towards Pseudopteroxazole." Michael Harmata and Xuechuan Hong. Paper #61 (ORGN) presented at the 228th meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 46. "Benzothiazines in Synthesis: Stereoselective Synthesis of Diastereomers of Erogorgiaene." Michael Harmata and Xuechuan Hong. Paper #60 (ORGN) presented at the 228th meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 45. "Substitution of a Bridgehead Bromide by Primary Organolithium Reagents." Michael Harmata and Sumrit Wacharasindhu. Paper # 274 presented at the 39th Annual Midwest Regional Meeting of the American Chemical Society, Columbia, November 5-7, 2003.
 44. "A Synthesis of Dihydropyridones." Michael Harmata and Dong Reyoul Lee. Paper # 152 presented at the 39th Annual Midwest Regional Meeting of the American Chemical Society, Columbia, November 5-7, 2003.
 43. "Towards a Synthesis of Erogorgiaene." Michael Harmata and Xuechuan Hong. Paper # 48 presented at the 39th Annual Midwest Regional Meeting of the American Chemical Society, Columbia, November 5-7, 2003.
 42. "Substitution of a Bridgehead Bromide by Primary Organolithium Reagents." Michael

- Harmata and Sumrit. Wacharasindhu. Paper # 892 (ORGN) presented at 224th ACS National Meeting, Boston, August 18-22, 2002.
41. "The Preparation of a Bridgehead Organolithium Reagent." Michael Harmata and Patrick Kirchhoefer. Paper #348 (ORGN) presented at the 224th National Meeting of the American Chemical Society, Boston, August 18-22, 2002.
 40. "4+3 Cycloaddition Approach to the Synthesis of Spatol." Michael Harmata and Paitoon Rashatasakhon. Paper #614 presented at the 222nd National Meeting of the American Chemical Society, Chicago, August 26-30, 2001.
 39. "Progress Toward the Synthesis of Sterpurene using a 4+3 Cycloaddition Approach." Michael Harmata and Gary Bohnert. Paper #613 presented at the 222nd National Meeting of the American Chemical Society, Chicago, August 26-30, 2001.
 38. "Total Synthesis of (+)-Dactylol: Stereoselective [4+3] Cycloaddition." Paitoon Rashtasakhon and Michael Harmata. Paper #167 presented at the 35th Midwest Regional Meeting of the American Chemical Society, St. Louis, October 25-27, 2000.
 37. "One-Pot, One-Operation [3+3] Annulation Approach to Benzothiazines." Michael Harmata and Neville Pavri. Paper #593 presented at the 214th National Meeting of the American Chemical Society, New Orleans, August 22-26, 1999.
 36. "Dihalo-Substituted Cyclopentanones: Synthetic Equivalents of Cyclobutenes in Diels-Alder Reactions." Michael Harmata and Lixin Shao. Paper # 187 presented at the 214th National Meeting of the American Chemical Society, New Orleans, August 22-26, 1999.
 35. "Derivatives of Troeger's Base as Chiral Ligands." Michael Harmata and Mehmet Kahraman. Paper #239 (ORGN) presented at the 32nd Midwest Regional Meeting of the American Chemical Society, Osage Beach, October 29-November 1, 1997.
 34. "Intramolecular 4+3 Cycloadditions. A Total Synthesis of Aphanamol." Michael Harmata and Kevin W. Carter. Paper #224 (ORGN) presented at the 32nd Midwest Regional Meeting of the American Chemical Society, Osage Beach, October 29-November 1, 1997.
 33. "Studies Towards the Synthesis of a Chiral Molecular Square." Michael Harmata and Mehmet Kahraman. Paper #223 (ORGN) presented at the 32nd Midwest Regional Meeting of the American Chemical Society, Osage Beach, October 29-November 1, 1997.
 32. "Molecular Clefts Derived from Kagan's Ether. Synthesis and Solid State Inclusion Complexes of a Chiral Molecular Tweezer." Michael Harmata, Mehmet Kahraman, Sriram Tyagarajan, Charles L. Barnes and Christopher J. Welch. Paper #373 (ORGN) presented at the 213th National Meeting of the American Chemical Society, San Francisco, April 13-17, 1997.
 31. "Vinyl Oxocarbenium Ions in Intermolecular 4+3 Cycloaddition Reactions." Michael Harmata and Darin E. Jones. Paper #259 (ORGN) presented at the 213th National Meeting of the American Chemical Society, San Francisco, April 13-17, 1997.
 30. "General Regioselective Approach to the Synthesis of *ortho*-Allylanilines." Michael Harmata and Darin E. Jones. Paper #304 (ORGN) presented at the 210th National Meeting of the American Chemical Society, Chicago, August 20-24, 1995.
 29. "Vinylthionium Ions from Allylic Alcohols. Applications to Intramolecular [4+3] Cycloadditions." Michael Harmata and Darin E. Jones. Paper #36 (ORGN) presented at the 209th National Meeting of the American Chemical Society, Anaheim, April 2-6, 1995..
 28. "An Approach to Topological Analogues of Echinomycin: Synthesis of a New Class of Molecular Tweezers. Michael Harmata, Charles L. Barnes, Srinivasa Rao Karra and Saleh

- Elahmad. Paper #199 (ORGN) presented at the 29th Midwest Regional Meeting of the American Chemical Society, Kansas City, November 2-4, 1994.
27. "The Generation of Vinylthionium Ions from Allylic Alcohols: Applications to 4+3 Cycloadditions." Michael Harmata and Darin E. Jones. Paper #198 (ORGN) presented at the 29th Midwest Regional Meeting of the American Chemical Society, Kansas City, November 2-4, 1994.
 26. "An Intramolecular 4+3 Cycloaddition Approach to the Synthesis of Aphanamol." Michael Harmata and Kevin W. Carter. Paper #197 (ORGN) presented at the 29th Midwest Regional Meeting of the American Chemical Society, Kansas City, November 2-4, 1994.
 25. "Intramolecular 4+3 Cycloadditions of Ring Fused Allylic Cations." Michael Harmata, Danielle Jansen and Darin E. Jones. Paper #196 (ORGN) presented at the 29th Midwest Regional Meeting of the American Chemical Society, Kansas City, November 2-4, 1994.
 24. "The Synthesis of Polycycles from the Intramolecular 4+3 Cycloaddition of Cyclic Oxyallyls with Dienes." Michael Harmata and Saleh Elahmad. Paper #195 (ORGN) presented at the 29th Midwest Regional Meeting of the American Chemical Society, Kansas City, November 2-4, 1994.
 23. "Intramolecular 4+3 Cycloadditions. The Synthesis of Cyclooctanoids.", Michael Harmata, Saleh Elahmad and Charles L. Barnes. Paper #33 (ORGN) presented at the 207th National Meeting of the American Chemical Society, San Diego, March 13-17, 1994.
 22. "Trimethylsilylmethyl Allylic Sulfones in Intramolecular 4+3 Cycloadditions." Michael Harmata and Barry F. Herron. Paper #144 (ORGN) presented at the 206th National Meeting of the American Chemical Society, Chicago, August 22-26, 1993.
 21. "An Intramolecular 4+3 Cycloaddition Approach to the Synthesis of Widdrol." Michael Harmata and Gilbert Adenu. Paper #533 (ORGN) presented at the 27th Midwest Regional Meeting of the American Chemical Society, Lawrence, November 4-6, 1992.
 20. "Intramolecular 4+3 Cycloadditions Via Cyclic Oxyallylic Cations." Michael Harmata and Saleh Elahmad. Paper #534 (ORGN) presented at the 27th Midwest Regional Meeting of the American Chemical Society, Lawrence, November 4-6, 1992.
 19. "A Convenient Preparation of 2-Allylanilines." Michael Harmata and Darin E. Jones. Paper #535 (ORGN) presented at the 27th Midwest Regional Meeting of the American Chemical Society, Lawrence, November 4-6, 1992.
 18. "Cyclic Oxyallylic Cations in Intramolecular 4+3 Cycloadditions." Michael Harmata and Saleh Elahmad. Paper #391 (ORGN) presented at the 204th National Meeting of the American Chemical Society, Washington DC, August 23-28, 1992.
 17. "The Reaction of N-Phenyl-(4-Methylphenyl)-Sulfoximidoyl Chloride with Alkenes." Synthetic and Mechanistic Studies." Michael Harmata, Charles L. Barnes, and R.J. Claassen II. Paper #109 (ORGN) presented at the 201st National Meeting of the American Chemical Society, Atlanta, April 14-19, 1991.
 16. "Internal and Relative Asymmetric Induction in an Intramolecular 4+3 Cycloaddition Reaction." Michael Harmata, and Chandra B. Gamlath. Paper #110 (ORGN) presented at the 201st National Meeting of the American Chemical Society, Atlanta, April 14-19, 1991.
 15. "Synthesis and Some Chemistry of Functionalized Allylic Silanes." Michael Harmata and Barry F. Herron. Paper #128 (ORGN) presented at the 25th Midwest Regional Meeting of the American Chemical Society, Manhattan, November 7-9, 1990.

14. "Precursors to Alkoxyallylic Cations: Synthesis and Chemistry of 2-Alkoxy Vinyl Triflones." Michael Harmata and R.J. Claassen II. Paper #134 (ORGN) presented at the 25th Midwest Regional Meeting of the American Chemical Society, Manhattan, November 7-9, 1990.
13. "Synthetic and Binding Studies on a Chiral Molecular Tweezer: Dibenzofuran Rings as Pincers." Michael Harmata and Sandeepraj Pulsalkar. Paper #148 (ORGN) presented at the 25th Midwest Regional Meeting of the American Chemical Society, Manhattan, November 7-9, 1990.
12. "Synthetic and Binding Studies on a Chiral Molecular Tweezer: Naphthalene Rings as Pincers." Michael Harmata and Sriram Tyagarajan. Paper #149 (ORGN) presented at the 25th Midwest Regional Meeting of the American Chemical Society, Manhattan, November 7-9, 1990.
11. "Relative Asymmetric Induction in Intramolecular 4+3 Cycloaddition Reactions." Michael Harmata and Chandra B. Gamlath. Paper #170 (ORGN) presented at the 25th Midwest Regional Meeting of the American Chemical Society, Manhattan, November 7-9, 1990.
10. "Molecular Clefts: Synthetic Methodology for the Preparation of Analogues of Kagan's Ether." Michael Harmata and Thomas Murray. Paper #202 (ORGN) presented at the 198th meeting of the American Chemical Society, Miami Beach, September 10-15, 1989.
9. "Some Chemistry of 2-Alkoxyallylic Sulfones." Michael Harmata and Chandra B. Gamlath. Paper #122 (ORGN) presented at the 23rd Midwest Regional Meeting of the American Chemical Society, Iowa City, November 16-18, 1988.
8. "General Approaches to the Synthesis of Analogues of Kagan's Ether." Michael Harmata, Thomas Murray, and Tamara Rehm. Paper #154 (ORGN) presented at the 23rd Midwest Regional Meeting of the American Chemical Society, Iowa City, November 16-18, 1988.
7. "Lewis Acid Mediated Reactions of N-Phenyl-(4-Methylphenyl)-Sulfoximidoyl Chlorides with Alkenes." Michael Harmata and Robert J. Claassen II. Paper #181 (ORGN) presented at the 23rd Midwest Regional Meeting of the American Chemical Society, Iowa City, November 16-18, 1988.
6. "Functionalization of Benzothiazines via a Sulfoximine Stabilized Vinyl Carbanion." Michael Harmata and Tamara Rehm. Paper #182 (ORGN) presented at the 23rd Midwest Regional Meeting of the American Chemical Society, Iowa City, November 16-18, 1988.
5. "Conversion of Benzothiazines to Indoles: An Indole Annulation Process." Michael Harmata and Barry Herron. Paper #183 (ORGN) presented at the 23rd Midwest Regional Meeting of the American Chemical Society, Iowa City, November 16-18, 1988.
4. "Intramolecular 4+3 Cycloadditions of 2-Alkoxyallylic Cations Derived from 2-Alkoxyallylic Sulfones." M. Harmata and C. B. Gamlath. Paper #158 (ORGN) presented at the 196th National Meeting of the American Chemical Society, Los Angeles, September 25-30, 1988.
3. "Lewis Acid Mediated Cycloadditions of N-Aryl-Sulfoximidoyl Chlorides with Alkynes. A Novel Route to Unique Benzothiazines." Michael Harmata. Paper #295 (ORGN) presented at the 194th National Meeting of the American Chemical Society, New Orleans, August 30 -September 4, 1987.
2. "A Carbanion Accelerated Claisen Rearrangement." S.E. Denmark and M.A. Harmata. Paper #177 (ORGN) presented at the 183rd National Meeting of the American Chemical Society, Las Vegas, March 28-April 2, 1982.

1. "Synthesis of Bicyclic Ethers by the Reaction of Phenylacetaldehydes with Fluorosulfuric Acid." (with J. Kagan, et al.) Paper #137 (ORGN) presented at the 14th Great Lakes Regional Meeting of the American Chemical Society, Macombe, IL, June 4-6, 1980.

Posters

156. "An Asymmetric, Catalytic (4+3) Cycloaddition Reaction of Cyclopentenyl Oxyallylic Cations." Michael Topinka, Kerstin Zawatzky, Charles L. Barnes, Christopher J. Welch, and Michael Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 23-28, 2017.
155. "(4+3)-Cycloaddition Reactions of Oxidopyridinium Species." Chencheng Fu, Nestor Lora, Patrick L. Kirchhoefer, Dong R. Lee, Erich Altenhofer, Charles Barnes, and Michael Harmata. Poster #135 (ORGN) presented at the 253rd ACS National Meeting & Exposition, San Francisco, CA, April 2-8, 2017.
154. "Synthesis of (Z)-2-((Tert-butyltrimethylsilyloxy)-3-(phenylthio)acrylaldehyde." Michael Topinka and Michael Harmata. Poster #134 (ORGN) presented at the 253rd ACS National Meeting & Exposition, San Francisco, CA, April 2-8, 2017.
153. "(4+3)-Cycloaddition Reactions of Oxidopyridinium Species." Chencheng Fu and Michael Harmata. Presented at the Gordon Research Conference on Stereochemistry, July 24-29, 2016.
152. "(4+3)-Cycloaddition Reaction of N-Alkyl Oxidopyridinium Ions." Chencheng Fu and Michael Harmata. Presented at the 29th Annual Organic Chemistry Day, University of Missouri-Columbia, April, 9, 2016.
151. "Radiosynthesis of Deoxyfluorosucrose Analogs and their *in vivo* Study of Sucrose Transport in Maize Leaves." Carissa S. Hampton, Thu Tran, Thomas Brossard, Michael Harmata, J. David Robertson, Silvia Jurisson and David M. Braun. Presented at Life Sciences Week 2016 Poster Session, University of Missouri-Columbia, April 18, 2016.
150. "Radiosynthesis of Deoxyfluorosucrose Analogs and Their *in Vivo* Study of Sucrose Transport in Maize Leaves." Carissa Hampton, Thomas Brossard, David Rotsch, Weijiang Ying, Vikram Gaddam, Michael Harmata, J. David Robertson, Michael Swyers, Silvia Jurisson and David M. Braun. Poster #918 presented at Pacificchem 2015, Honolulu, December 15-20, 2015.
149. "Synthesis of 2,5-Dihydrofurans from Hydroxypropargylic Sulfinates by Silver Catalysis." Rama Rao Tata and Michael Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 19-24, 2015.
148. "Synthesis of a Tröger's Base-Derived Ligand." Carissa S. Hampton and Michael Harmata. Presented at the 28th Annual Inorganic Chemistry Day, University of Missouri-Columbia, May 9, 2015.
147. "Synthesis of Oxacycles from Allenyl Alcohols by Silver and Gold Catalysis." Rama Rao Tata and Michael Harmata. Presented at the 28th Annual Organic Chemistry Day, University of Missouri-Columbia, April 11, 2015.
146. "Synthesis of 2,5-Dihydrofurans from Hydroxypropargylic Sulfinates by Silver Catalysis." Rama Rao Tata and Michael Harmata. Presented at the 28th Annual Organic Chemistry Day, University of Missouri-Columbia, April 11, 2015.

145. "Synthesis of a Tröger's Base-Derived Ligand." Carissa S. Hampton and Michael Harmata. Presented at the 28th Annual Organic Chemistry Day, University of Missouri-Columbia, April 11, 2015.
144. "Synthesis of Troeger's Base-Derived Ligands." Carissa S. Hampton and Michael Harmata. Poster #503 (ORGN) presented at the 249th National Meeting of the American Chemical Society, Denver, March 22-26, 2015.
143. "Mechanistic Studies and Scope of the Regiodivergent Synthesis of 1- and 2-Arylsulfonyl 1,3-dienes." Carissa S. Hampton and Michael Harmata. Presented at the 5th Annual ACS Division of Organic Chemistry Graduate Research Symposium, University of California-Irvine, Irvine, CA, July 24-27, 2014.
142. "Mechanistic Studies and Scope of the Regiodivergent Synthesis of 1- and 2-Arylsulfonyl 1,3-Dienes." Carissa S. Hampton and Michael Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 13-18, 2014.
141. "Synthesis of Functionalized Cyclic Boronates." Erich Altenhofer and Michael Harmata. Presented at the 27th Annual Organic Chemistry Day, University of Missouri-Columbia, April 12, 2014.
140. "Automated F-18 Labeling of Sucrose for Transporter Studies in Plants via PET." Tom Brossard, Weijiang Ying, David Rotsch, Vikram Gaddam, Michael Harmata, Silvia Jurisson, J. David Robertson and David Braun. Presented at the 30th Annual Missouri Life Sciences Week, University of Missouri-Columbia, April 14, 2014.
139. "Gold-Catalyzed Generation of Vinylthionium Ions." Michael Topinka, Rama Rao Tata and Michael Harmata. Presented at the 27th Annual Organic Chemistry Day, University of Missouri-Columbia, April 12, 2014.
138. "Chemical Synthesis of 4-Fluorogluthione." Weijiang Ying and Michael Harmata. Presented at the 27th Annual Organic Chemistry Day, University of Missouri-Columbia, April 12, 2014.
137. "Synthesis of Furan-3(2H)-ones." Rama Rao Tata and Michael Harmata. Presented at the 27th Annual Organic Chemistry Day, University of Missouri-Columbia, April 12, 2014.
136. "Mechanistic Aspects of the Regiodivergent Synthesis of 1- and 2-Arylsulfonyl 1,3-Dienes." Carissa S. Hampton and Michael Harmata. Presented at the 27th Annual Organic Chemistry Day, University of Missouri-Columbia, April 12, 2014.
135. "Chemical Synthesis Of 1'-Deoxy-1'-fluorosucrose." Weijiang Ying and Michael Harmata. Poster #515 ORGN presented at the 246th National Meeting of the American Chemical Society, Indianapolis, September 8-12, 2013.
134. "Synthesis of Functionalized Ring Systems Containing Boron Functionality." Erich Altenhofer and Michael Harmata. Poster #110 ORGN presented at the 246th National Meeting of the American Chemical Society, Indianapolis, September 8-12, 2013.
133. "Gold-Catalyzed Generation of Vinylthionium Ions." Rama Rao Tata, Michael Topinka and Michael Harmata. Poster #132 ORGN presented at the 246th National Meeting of the American Chemical Society, Indianapolis, September 8-12, 2013.
132. "New Synthesis of Conjugated α -Hydroxyketones." Rama Rao Tata, Carissa S. Hampton, Erich Altenhofer, Weijiang Ying, Michael Topinka, Xuefeng Gao and Michael Harmata. Poster #111 ORGN presented at the 246th National Meeting of the American Chemical Society, Indianapolis, September 8-12, 2013.

131. "Oxidative Addition of *S*-2-Bromophenyl-*S*-methylsulfoximine." Li Yang, Michael Harmata and Paul R. Sharp. Poster #612 INOR presented at the 213th National Meeting of the American Chemical Society, September 8-12, 2013.
130. "A Regiodivergent Synthesis of 1- and 2-Sulfonyl Dienes" Carissa S. Hampton and Michael Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 14-19, 2013.
129. "Chemical Synthesis of 1'-Deoxy-1'-Fluorosucrose." Weijiang Ying and Michael Harmata. Presented at the 26th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2013.
128. "Regiodiverse Synthesis of 1- and 2-Sulfonyldienes from Allenic Sulfones." Carissa S. Hampton and Michael Harmata. Presented at the 26th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2013.
127. "Chemistry of 2-Boryl Allylic Sulfones." Erich Altenhofer and Michael Harmata. Presented at the 26th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2013.
126. "Silver Catalyzed 5-endo-dig Cyclization of α -Hydroxy Allenic sulfones." Rama Rao Tata and Michael Harmata. Presented at the 26th Annual Organic Chemistry Day, University of Missouri-Columbia, April 26, 2013.
125. "Synthesis and Chemistry of Bifunctional Boron Species." Erich Altenhofer and Michael Harmata. Presented at the 25th Annual Organic Chemistry Day, University of Missouri-Columbia, April 21, 2012.
124. "CH Activation of *S*-Alkenyl Sulfoximines." Xuefeng Gao and Michael Harmata. Presented at the 25th Annual Organic Chemistry Day, University of Missouri-Columbia, April 21, 2012.
123. "Synthesis of 6'-Deoxy-6'-fluorosucrose." Vikram Gaddam and Michael Harmata. Presented at the 25th Annual Organic Chemistry Day, University of Missouri-Columbia, April 21, 2012.
122. "Bifunctional Boronates." Erich A. Altenhofer and Michael Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 17-22, 2011.
121. "Total Synthesis of Buddledone A." Nattawut Yongpruksa, Zhengxin Cai and Michael Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 17-22, 2011.
120. "Carbon to Carbon Anion Relay Chemistry. Generation of Allylic Anion From Allylic Silane." Pinguan Zheng, Zhengxin Cai, Aswinkumar Garimallprabhakaran, and Michael Harmata. Presented at the 24th Annual Organic Chemistry Day, University of Missouri-Columbia, April 9, 2011.
119. "Study of Based-Mediated 4+3 Cycloaddition between 3,4-Disubstituted α -Halocyclopentanone and Furan Derivatives." Michael Harmata and Xuefeng Gao. Presented at the 24th Annual Organic Chemistry Day, University of Missouri-Columbia, April 9, 2011.
118. "Syntheses of Novel Fluorescent 7-Amino-2,1-Benzothiazines." Nattawut Yongpruksa and Michael Harmata. Presented at the 24th Annual Organic Chemistry Day, University of Missouri-Columbia, April 9, 2011.
117. "Benzothiazine in Organic Synthesis-Towards New Chiral Ligands ." Michael Harmata and Aswinkumar Garimallprabhakaran. Presented at the 23rd Annual Organic Chemistry Day, University of Missouri-Columbia, April 17, 2010.

116. "Benzothiazines in Organic Synthesis. Towards New Chiral Ligands." Aswin Kumar Garimallaprabhakaran and Michael Harmata. Poster #275 (ORGN), presented at the 239th National Meeting of the American Chemical Society, San Francisco, March 21-25, 2010.
115. "Benzothiazines in Organic Synthesis. Toward the Total Synthesis of *cis*-Calamenene." Aswin Kumar Garimallaprabhakaran and Michael Harmata. Poster #274 (ORGN), presented at the 239th National Meeting of the American Chemical Society, San Francisco, March 21-25, 2010.
114. "Boric Acid Catalyzed N-Acylation of Sulfoximines." Michael Harmata and Aswin K Garimallaprabhakaran. Poster # 429 (ORGN), presented at the 238th ACS National Meeting, Washington D.C., August 16-20, 2009.
113. "Towards a Synthesis of Hamigeran B" Michael Harmata and Zhengxin Cai. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 19-24, 2009.
112. "Boric Acid Catalyzed N-Acylation of Sulfoximines." Michael Harmata and Aswinkumar Garimallaprabhakaran. Presented at the 22nd Annual Organic Chemistry Day, University of Missouri-Columbia, April 18, 2009.
111. "Benzothiazines in Synthesis: Toward the Total Synthesis of Elisapterosin B." Michael Harmata and Weijiang Ying. Presented at the 22nd Annual Organic Chemistry Day, University of Missouri-Columbia, April 18, 2009.
110. "Benzothiazines in Synthesis. Studies Directed Toward the Synthesis of Erogorgiaene." Michael Harmata, Xuechuan Hong and Peter R. Schreiner. Poster #19 presented at the 5th Asian-European Symposium of Metal-Mediated Efficient Organic Synthesis, Obernai, May 25-28, 2008.
109. "An Interrupted [4+3]-Cycloaddition Reaction: A Hydride Shift (Ene Reaction) Intervenes." Michael Harmata, Chaofeng Huang, Parham Rooshenas, and Peter R. Schreiner. Poster #18 presented at the 5th Asian-European Symposium of Metal-Mediated Efficient Organic Synthesis, Obernai, May 25-28, 2008.
108. "Silver-Catalyzed Rearrangement of Propargylic Sulfinates to Allenic Sulfones" Michael Harmata and Chaofeng Huang. Poster #17 presented at the 5th Asian-European Symposium of Metal-Mediated Efficient Organic Synthesis, Obernai, May 25-28, 2008.
107. "Silver-Catalyzed Rearrangement of Propargylic Sulfinates to Allenic Sulfones." Michael Harmata and Chaofeng Huang. Poster #664 (ORGN) presented at the 235th National Meeting of the American Chemical Society, New Orleans, April 6-10, 2008.
106. "Benzothiazines in Synthesis: A Stereochemistry Study of Friedel-Crafts Reaction." Michael Harmata and Weijiang Ying. Presented at the 21st Annual Organic Chemistry Day, University of Missouri-Columbia, April 5, 2008.
105. "Application of Chiral Benzothiazines in Natural Product Synthesis" Michael Harmata and Yugang Chen. Presented at the 21st Annual Organic Chemistry Day, University of Missouri-Columbia, April 5, 2008.
104. "Silver-Catalyzed Rearrangement of Propargylic Sulfinates to Allenic Sulfones" Michael Harmata and Chaofeng Huang. Presented at the 21st Annual Organic Chemistry Day, University of Missouri-Columbia, April 5, 2008.
103. "Benzothiazines in Synthesis: A Study of Friedel-Crafts Reaction." Michael Harmata and Weijiang Ying. Presented at the 20th Annual Organic Chemistry Day, University of Missouri-Columbia, April 28, 2007.
102. "Towards the Total Synthesis of *seco*-Pseudopteroxazole." Michael Harmata and Pinguan Zheng. Presented at the 20th Annual Organic Chemistry Day, University of Missouri-

- Columbia, April 28, 2007.
101. "New Benzothiazines Derived from Dimethyl Sulfoximine." Michael Harmata and Chaofeng Huang. Poster #195 (ORGN) presented at the 233rd National Meeting of the American Chemical Society, Chicago, Mar. 25-29, 2007.
 100. "Benzothiazines in Synthesis. Towards New Chiral Ligands." Michael Harmata and Nathan L. Calkins. Presented at the 19th Annual Organic Chemistry Day, University of Missouri-Columbia, April 24, 2006.
 99. "Diels-Alder Reactions of a Reactive Cyclopentadienone." Michael Harmata and Maria G. Gomes. Presented at the 19th Annual Organic Chemistry Day, University of Missouri-Columbia, April 24, 2006.
 98. "Benzothiazines in Synthesis: Towards New Chiral Ligands." Michael Harmata and Nathan L. Calkins. Poster #516 presented at the 231st National Meeting of the American Chemical Society, Atlanta, March 26-30, 2006.
 97. "Benzothiazines in Synthesis: a Route to Chiral Cyclobutanes. Michael Harmata, Weijiang Ying, and Xuechuan Hong. Poster #515 presented at the 231st ACS National Meeting of the American Chemical Society, Atlanta, March 26-30, 2006.
 96. "The Retro-Nazarov Reaction." Michael Harmata and Dong R. Lee. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 31-August 5, 2005.
 94. "Benzothiazines in Synthesis. The Total Synthesis of Pseudopteroxazole." Michael Harmata and Xuechuan Hong. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 31-August 5, 2005.
 93. "Sequential Alkylation of Tröger's Base. An Approach to New Chiral Ligands." Michael Harmata and Kanok-on Rayanil. Poster #103 presented at the 39th Midwest Regional Meeting of the American Chemical Society, Manhattan, October 20-24, 2004.
 92. "Addition of sp²- and sp-Hybridized Organolithiums to a Tricyclic Bromoketone." Michael Harmata and Sumrit Wacharasindhu. Poster #606 (ORGN) presented at the 228th National Meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 91. "Microwave-Assisted N-Arylation of a Sulfoximine with Aryl Chlorides." Michael Harmata and Xuechuan Hong. Poster #165 (ORGN) presented at the 228th meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 90. "A Synthesis of Dihydropyridones." Michael Harmata and Dong Reyoul Lee. Poster #284 (MEDI) presented at the 228th meeting of the American Chemical Society, Philadelphia, August 22-26, 2004.
 89. "Synthesis of the Carbocyclic Core of Tricycloclavulone from a Simple 4+3 Cycloadduct." Michael Harmata and Sumrit Wacharasindhu. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 18-23, 2004.
 88. "Microwave-Assisted N-Arylation of a Sulfoximine with Aryl Chlorides." Michael Harmata and Xuechuan Hong. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 18-23, 2004.
 87. "Benzothiazines in Synthesis: Towards Pseudopteroxazole." Michael Harmata and Xuechuan Hong. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 18-23, 2004.
 86. "Studies of the Preparation of Dihydropyridones from Alkoxydienones." Michael Harmata and Dong Reyoul Lee. Presented at the 17th Annual Organic Chemistry Day, University of Missouri-Columbia, April 24, 2004.
 85. "Towards a New Class of Chiral Benzothiazine Ligands." Michael Harmata, Nathan

- Calkins, Xuechang Hong, Gary Bohnert and Russell G. Baughman. Presented at the 17th Annual Organic Chemistry Day, University of Missouri-Columbia, April 24, 2004.
84. "Towards the Synthesis of Tricycloclavulone." Michael Harmata, and Sumrit Wacharasindhu. Presented at the 17th Annual Organic Chemistry Day, University of Missouri-Columbia, April 24, 2004.
83. "Benzothiazines in Synthesis Towards Pseudoperoxazole." Michael Harmata and Xuechang Hong. Presented at the 17th Annual Organic Chemistry Day, University of Missouri-Columbia, April 24, 2004.
82. "Toward a Total Synthesis of Erogorgiaene." Michael Harmata and Xuechan Hong. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 20-25, 2003.
81. "Asymmetric Organocatalysis of 4+3 Cycloaddition Reactions." Michael Harmata, Sunil K. Ghosh, Xuechang Hong, Sumrit Wacharasindhu and Patrick Kirchhoefer. Presented at the 16th Annual Organic Chemistry Day, University of Missouri-Columbia, April 26, 2003.
80. "The Retro-Nazarov Reaction." Michael Harmata and Dong R. Lee. Presented at the 16th Annual Organic Chemistry Day, University of Missouri-Columbia, April 26, 2003.
79. "The Intramolecular, Stereoselective Addition of Sulfoximine Carbanions to α,β -Unsaturated Esters." Michael Harmata and Xuechan Hong. Presented at the 16th Annual Organic Chemistry Day, University of Missouri-Columbia, April 26, 2003.
78. "Total Synthesis of Sterpurene." Michael Harmata and Gary Bohnert. Poster # 375(MEDI) presented at 224th ACS National Meeting-Boston, August 18-22, 2002.
77. "Synthesis and Application of a Chiral, Bisbenzothiazine Ligand." Michael Harmata and Sunil K. Ghosh. Poster # 392(MEDI) presented at 224th ACS National Meeting-Boston, August 18-22, 2002.
76. "Synthesis of Chiral, Nonracemic Benzothiazines by Intramolecular Michael Addition of Sulfoximine Carbanions to Unsaturated Esters." Michael Harmata and Xuechuan Hong. Poster #391 (MEDI) presented at 224th National Meeting of the American Chemical Society, Boston, August 18-22, 2002.
75. "Intramolecular 4+3 Cycloadditions: Stereochemical issues in the cycloaddition reactions of Cyclopentenyl Cations. A Synthesis of (+)-Dactylol." Michael Harmata and Paitoon Rashatasakhon. Poster #377 (MEDI) presented at the 224th National Meeting of the American Chemical Society, Boston, August 18-22, 2002.
74. "Observations on the regioselectivity of some Baeyer-Villiger reactions." Michael Harmata and Paitoon Rashatasakhon. Paper #730 (ORGN) presented at the 224th National Meeting of the American Chemical Society, Boston, August 18-22, 2002.
73. "4+3 Cycloadditions of Oxidoquinolinium and Oxidopyrylium Ions." Michael Harmata, Rachel M. Walsh, and Gary Bohnert. Poster #714 (ORGN) presented at the 224th National Meeting of the American Chemical Society, Boston, August 18-22 2002.
72. "The Retro-Nazarov Reaction." Michael Harmata and Dong R. Lee. Presented at the 15th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2002.
71. "Bis-Benzothiazines as Chiral Ligands." Michael Harmata and Sunil K. Ghosh. Presented at the 15th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2002.
70. "The Preparation of a Bridgehead Organolithium Reagent." Michael Harmata and Patrick Kirchhoefer. Presented at the 15th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2002.

69. "Substitution of a Bridgehead Bromide by Primary Organolithium Reagents." Michael Harmata and Sumrit Wacharasindhu. Presented at the 15th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2002.
68. "Benzothiazines in Synthesis. The Formal Total Synthesis of Curcuphenol." Michael Harmata and Xuechan Hong. Presented at the 15th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2002.
67. "4+3 Cycloaddition Reactions of oxidoquinolinium and Oxidopyrylium Ions." Michael Harmata, Gary Bohnert and Rachel Walsh. Presented at the 15th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 2002.
66. "Generation of Cyclopentadienones from 2-Bromocyclopentenones." Michael Harmata, Charles L. Barnes, James Brackley, Gary Bohnert, Patrick Kirchhoefer, Laszlo Kürti and Paitoon Rashatasakhon. Poster #343 (ORGN) presented at the 222nd National Meeting of the American Chemical Society, Chicago, August 26-30, 2001.
65. "4+3 Cycloaddition Approach to the Spatane Ring System." Michael Harmata and Paitoon Rashatasakhon. Poster #331 (ORGN) presented at the 222nd National Meeting of the American Chemical Society, Chicago, August 26-30, 2001.
64. "Generation of Cyclopentadienones from 2-Bromocyclopentenones." Michael Harmata, Charles L. Barnes, James Brackley, Gary Bohnert, Patrick Kirchhoefer, Laszlo Kürti, and Paitoon Rashatasakhon. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 22-27, 2001.
63. "A 4+3 Cycloaddition Approach to the Synthesis of Sterpurene." Michael Harmata and Gary Bohnert. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 22-27, 2001.
62. "A 4+3 Cycloaddition Approach to the Synthesis of Sterpurene." Michael Harmata and Gary Bohnert. Presented at the 14th Annual Organic Chemistry Day, University of Missouri-Columbia, April 28, 2001.
61. "A 4+3 Cycloaddition Reaction of Oxyallylic Cations. Formal Synthesis of Racemic Spatol. Michael Harmata and Paitoon Rashatasakhon. Presented at the 14th Annual Organic Chemistry Day, University of Missouri-Columbia, April 28, 2001.
60. "Metallated Angiotensin II Receptor Antagonist: New Imaging Modality for Fibrosis in Heart." R. Pandurangi, D. Papagiannopoulou, L. Kürti, M. Papadopoulos, I. Pirmettis, A. Terzis, E. Chiotellis, M. Harmata and R. Kuntz. Poster #63 presented at PACIFICHEM, Honolulu, December 14-19, 2000.
59. "Vinyl Oxocarbenium Ions in Asymmetric 4+3 Cycloadditions: Allylic Dioxolanes as Cation Precursors." James A. Brackley and Michael Harmata. Poster #214 presented at the 35th Midwest Regional Meeting of the American Chemical Society, St. Louis, October 25-27, 2000.
58. "Synthesis and Some Cycloaddition Reactions of 2-Triisopropylsilyloxyacrolein." Michael Harmata and Uday Sharma. Poster #148 presented at the 220th National Meeting of the American Chemical Society, Washington, D.C., August 20-23, 2000.
57. "Intramolecular 4+3 Cycloadditions: Some Examples of Surprisingly High Levels of Simple Diastereoselection." Michael Harmata and Gary Bohnert. Poster #149 presented at the 220th National Meeting of the American Chemical Society, Washington, D.C., August 20-23, 2000.
56. "Vinylloxocarbenium Ions in 4+3 Cycloaddition Reactions: Bromination of an Alkoxyenone, Cycloaddition Chemistry of the Adducts, and Chemistry of the

- Cycloadducts." Michael Harmata and Paitoon Rashatasakhon. Poster #150 presented at the 220th National Meeting of the American Chemical Society, Washington, D.C., August 20-23, 2000.
55. "Intramolecular [4+3]-Cycloadditions. Aspects of Stereocontrol in the Synthesis of Cyclooctanoids. A Synthesis of (+)-Dactylol." Michael Harmata and Paitoon Rashatasakhon. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 16-21, 2000.
 54. "Vinylloxocarbenium Ions in 4+3 Cycloaddition Reactions: An Update" Michael Harmata and Paitoon Rashatasakhon. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 16-21, 2000.
 53. "Novel Photoaffinity Labeling Agents: First Example of Structure of Tc and Re Complexes with Tetradentate N₂Py₂ Type Ligands." Dioni Papagiannopoulou, Laszlo Kürti, Minas Papadopoulos, Ioannis Pirmettis, Aris Terzis, Efstratios Chiotellis, Michael Harmata, Robert Kuntz and Raghu S. Pandurangi. Presented at the 13th Annual Organic Chemistry Day, University of Missouri-Columbia, April 22, 2000.
 52. "Synthesis and Some Cycloaddition Reactions of 2-triisopropylsilyloxyacrolein." Michael Harmata and Uday Sharma. Presented at the 13th Annual Organic Chemistry Day, University of Missouri-Columbia, April 22, 2000.
 51. "Intramolecular 4+3 Cycloadditions. An Approach to Angular Triquinanes." Michael Harmata and Laszlo Kürti. Presented at the 13th Annual Organic Chemistry Day, University of Missouri-Columbia, April 22, 2000.
 50. "Intramolecular 4+3 Cycloadditions. Some Examples of Surprisingly High levels of Simple Diastereoselection." Michael Harmata and Gary Bohnert. Presented at the 13th Annual Organic Chemistry Day, University of Missouri-Columbia, April 22, 2000.
 49. "Vinyl Oxocarbenium Ions in 4+3 Cycloaddition. Allylic Dioxolanes as Cation Precursors." Michael Harmata and James Brackley. Presented at the 13th Annual Organic Chemistry Day, University of Missouri-Columbia, April 22, 2000.
 48. "Intramolecular 4+3 Cycloadditions. Aspects of Stereocontrol in the Synthesis of Cyclooctanoids. A Synthesis of (+)-Dactylol." Michael Harmata and Paitoon Rashatasakhon. Presented at the 13th Annual Organic Chemistry Day, University of Missouri-Columbia, April 22, 2000.
 47. "Vinylloxocarbenium Ions in 4+3 Cycloaddition Reactions." Michael Harmata and Paitoon Rashatasakhon. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 11-16, 1999.
 46. "Derivatives of Tröger's Base as Chiral Ligands." Michael Harmata and Mehmet Kahraman. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 11-16, 1999.
 45. "Vinylloxocarbenium Ions in [4+3] Cycloaddition Reactions." Paitoon Rashatasakhon and Michael Harmata. Presented at the 12th Annual Organic Chemistry Day, University of Missouri-Columbia, May 1, 1999.
 44. "Progress in the Synthesis of 11-Hydroxyjasione." Michael Harmata and Lixin Shao. Presented at the 12th Annual Organic Chemistry Day, University of Missouri-Columbia, May 1, 1999.
 43. "A One-Pot, one-Operation 3+3 Annulation Approach to Benzothiazines." Michael Harmata and Neville Pavri. Presented at the 12th Annual Organic Chemistry Day, University of Missouri-Columbia, May 1, 1999.

42. "Vinyloxocarbenium Ions in 4+3 Cycloaddition Reactions." Michael Harmata and Paitoon Rashatasakhon. Poster #186 presented at the 33rd Midwest Regional Meeting of the American Chemical Society, Wichita, November 4-6, 1998.
41. "Dihalo-Substituted Cyclopentanones: Synthetic Equivalents of Cyclobutenes in Diels-Alder Reactions." Michael Harmata and Lixin Shao. Poster #194 presented at the 33rd Midwest Regional Meeting of the American Chemical Society, Wichita, November 4-6, 1998.
40. "4+3 Cycloaddition Reactions of Halogen-Substituted Cyclohexenyl Oxyallylic Cations." Michael Harmata, Lixin Shao, Laszlo Kürti and Asitha Abeywardane. Poster #193 presented at the 33rd Midwest Regional Meeting of the American Chemical Society, Wichita, November 4-6, 1998.
39. "Derivatives of Tröger's Base as Chiral Ligands." Presented at the Sonderforschungsbereich 380 Symposium, Asymmetrische Synthesen mit Chemischen und Biologischen Methoden, Forschungszentrum Jülich, November 5-6, 1998.
38. "Lewis Acid Mediated Reactions of N-Aryl Sulfonylimidoyl Chlorides with Alkenes. Some Steric Effects of Alkene Substitution." Michael Harmata* and Mehmet Kahraman. Poster #583 (ORGN) presented at the 216th National Meeting of the American Chemical Society, Boston, August 23-27, 1998.
37. "Lewis Acid Mediated Reactions of N-Aryl Sulfonylimidoyl Chlorides with Alkenes. Some Steric Effects of Alkene Substitution." Michael Harmata and Mehmet Kahraman. Presented at the 11th Annual Organic Chemistry Day, University of Missouri-Columbia, April 25, 1998.
36. "4+3 Cycloaddition Reaction of Halogen-Substituted Cyclohexenyl Oxyallylic Cations." Michael Harmata, Lixin Shao, Laszlo Kürti and Asitha Abeywardane. Presented at the 11th Annual Organic Chemistry Day, University of Missouri-Columbia, April 25, 1998.
35. "A Chiral Molecular Tweezer Based on Kagan's Ether." Michael Harmata and Sriram Tyagarajan. Presented at the 10th Annual Organic Chemistry Day, University of Missouri-Columbia, April 26, 1997.
34. "2-Alkenylanilines from Benzothiazines." Michael Harmata, Darin E. Jones, Mehmet Kahraman and Susan E. Weatherwax. Presented at the 10th Annual Organic Chemistry Day, University of Missouri-Columbia, April 26, 1997.
33. "Intramolecular 4+3 Cycloadditions. A Total Synthesis of Aphanamol." Michael Harmata and Kevin W. Carter. Presented at the 10th Annual Organic Chemistry Day, University of Missouri-Columbia, April 26, 1997.
32. "Synthesis of a Functionalized Chiral Molecular Tweezer." Michael Harmata and Sriram Tyagarajan. Poster #089 (ORGN) presented at the 213th National Meeting of the American Chemical Society, San Francisco, April 13-17, 1997.
31. "The Reaction of N-Phenylsulfonylimidoyl Chloride with Trimethylsilylethene." Michael Harmata, Darin E. Jones, Mehmet Kahraman and Susan Weatherwax. Poster #161 (ORGN) presented at the 213th National Meeting of the American Chemical Society, San Francisco, April 13-17, 1997.
30. "Synthesis of a Functionalized Chiral Molecular Tweezer." Michael Harmata and Sriram Tyagarajan. Poster #B23 presented at the 9th International Symposium on Molecular Recognition and Inclusion; Lyon, France; September 7-12, 1996.

29. "The Metallation of Troeger's Base." Michael Harmata, Kevin W. Carter, Darin E. Jones and Mehmet Kahraman. Poster #B23 presented at the 9th International Symposium on Molecular Recognition and Inclusion; Lyon, France; September 7-12, 1996.
28. "The Metallation of Troeger's Base." Michael Harmata, Kevin W. Carter, Darin E. Jones and Mehmet Kahraman. Poster #101 (ORGN) presented at the 212th National Meeting of the American Chemical Society, Orlando, August 24-29, 1996.
27. "Asymmetric 4+3 Cycloadditions." Michael Harmata and Darin E. Jones. Presented at the 9th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 1996.
26. "A Synthesis of Aphanamol via an Intramolecular 4+3 Cycloaddition." Michael Harmata and Kevin W. Carter. Presented at the 9th Annual Organic Chemistry Day, University of Missouri- Columbia, April 27, 1996.
25. "Studies Towards the Synthesis of a Chiral Molecular Square." Michael Harmata and Mehmet Kahraman. Presented at the 9th Annual Organic Chemistry Day, University of Missouri- Columbia, April 27, 1996.
24. "Vinyl Oxocarbenium Ions in 4+3 Cycloadditions. Examples of Remote Relative Asymmetric Induction." Michael Harmata and Darin E. Jones. Poster #184 presented at the 29th Midwest Regional Meeting of the American Chemical Society, Kansas City, November 2-4, 1994.
23. "Sulfonimidoyl Chlorides in Organic Synthesis. An Approach to the Synthesis of Physovenine." Michael Harmata and Darin E. Jones. Poster #183 presented at the 29th Midwest Regional Meeting of the American Chemical Society, Kansas City, November 2-4, 1994.
22. "An Intramolecular 4+3 Cycloaddition Approach to the Synthesis of Aphanamol." Michael Harmata and Kevin W. Carter. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 17-22, 1994.
21. "Molecular Clefs. 4. An Approach to Topological Analogues of Echinomycin: Synthesis of a New Class of Synthetic Molecular Tweezers." Michael Harmata, Charles L. Barnes, Srinivasa Rao Karra and Saleh Elahmad. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 17-22, 1994.
20. "An Intramolecular 4+3 Cycloaddition Approach to the Synthesis of Widdrol and Epi-Widdrol." Michael Harmata, Gilbert Adenu and Mehmet Kahraman. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 11-16, 1993.
19. "A Convenient Preparation of Ortho Substituted Anilines." Michael Harmata and Mehmet Kahraman. Presented at the 6th Annual Organic Chemistry Day, University of Missouri-Columbia, April 17, 1993.
18. "The Lewis Acid Mediated Reaction of Sulfonimidoyl Chlorides with Alkenes." Michael Harmata and Mehmet Kahraman. Presented at the 6th Annual Organic Chemistry Day, University of Missouri-Columbia, April 17, 1993.
17. "Intramolecular 4+3 Cycloadditions of Oxy and Alkoxyallylic Cations in the Synthesis of Polycyclic Systems." Michael Harmata and Saleh A. Elahmad. Presented at the 6th Annual Organic Chemistry Day, University of Missouri-Columbia, April 17, 1993.
16. "Intramolecular 4+3 Cyclization Reaction with 2-Trimethylsilylmethyl Allylic Sulfones and Furan." Michael Harmata and Barry Herron. Poster #563 presented at the 27th Midwest Regional Meeting of the American Chemical Society, Lawrence, November 4-6, 1992.
15. "The Effect of Alkene Substitution on Diastereoselectivity in the Lewis Acid Mediated Reaction of N-Phenyl Sulfonimidoyl Chlorides with Alkenes." Michael Harmata and

- Mehmet Kahraman Poster #564 presented at the 27th Midwest Regional Meeting of the American Chemical Society, Lawrence, November 4-6, 1992.
14. "The Intramolecular Reaction of an Alkoxyallylic Cation with a Diene: Stereoselectivity, Regioselectivity and Chemoselectivity." Michael Harmata and Chandra B. Gamlath. Poster #565 presented at the 27th Midwest Regional Meeting of the American Chemical Society, Lawrence, November 4-6, 1992.
 13. "Intramolecular 4+3 Cycloadditions Mediated by the Pummerer Reaction." Michael Harmata and R.J. Claassen II. Poster #566 presented at the 27th Midwest Regional Meeting of the American Chemical Society, Lawrence, November 4-6, 1992.
 12. "Alkoxyvinyl Thionium Ions in the Intramolecular 4+3 Cycloaddition Reaction." Michael Harmata, Vernon R. Fletcher, and R.J. Claassen II. Poster #B-71 presented at the 32nd National Organic Chemistry Symposium, University of Minnesota, June 16-20, 1991.
 11. "Internal and Relative Asymmetric Induction in an Intramolecular 4+3 Cycloaddition Reaction." Chandra B. Gamlath, Charles L. Barnes, and Michael Harmata. Presented at the 4th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 1991.
 10. "2-Trimethylsilylmethyl Allylic Sulfones. Synthesis and Chemistry." Barry F. Herron and Michael Harmata. Presented at the 4th Annual Organic Chemistry Day, University of Missouri-Columbia, April 27, 1991.
 9. "Analogues of Kagan's Ether as Molecular Clefs." Michael Harmata and Charles L. Barnes. Presented at the 3rd Annual Organic Chemistry Day, University of Missouri-Columbia, April 7, 1990.
 8. "Activity of Alpha-Galactosidase from Pinto Bean (*Phaseolus Vulgaris*) on Erythrocyte Antigens." D. Smith, M. Dhar, F. Haibach, and M. Harmata. FASEB Journal 1990, 4, PA 1236.
 7. "A Regiospecific Synthesis of Ortho-Alkenyl Anilines." Michael Harmata and Barry Herron. Poster #154 presented the 24th Regional Meeting of the American Chemical Society, St. Louis, November 1-3, 1989.
 6. "Conversion of Benzothiazines to Ortho Substituted Anilines." Michael Harmata and Barry Herron. Presented at the 2nd Annual Organic Chemistry Day, University of Missouri-Columbia, April 15, 1989.
 5. "General Approaches to the Synthesis of Analogues of Kagan's Ether." Michael Harmata, Thomas Murray and Tamara Rehm. Presented at the 2nd Annual Organic Chemistry Day, University of Missouri-Columbia, April 15, 1989.
 4. "Formation of Benzothiazines via Reaction of N-Phenyl-(4-Methylphenyl)-Sulfoximidoyl Chlorides with Alkenes." Michael Harmata and R.J. Claassen II. Presented at the 2nd Annual Organic Chemistry Day, University of Missouri-Columbia, April 15, 1989.
 3. "The Effect of Stereochemistry of the Alkoxy Allylic Cation in an Intramolecular 4+3 Cycloaddition Reaction." Michael Harmata and Chandra B. Gamlath. Presented at the 2nd Annual Organic Chemistry Day, University of Missouri-Columbia, April 15, 1989.
 2. "General Approaches to the Synthesis of Analogues of Kagan's Ether." Michael Harmata and Thomas Murray. Presented at the Undergraduate Research Symposium at Washington University, September 7, 1988.
 1. "Lewis Acid Mediated Reactions of N-Arylsulfoximidoyl Chlorides with Alkynes and Alkenes: A Facile Synthesis of Benzothiazines." Michael Harmata. Presented at the Gordon Research Conference on Heterocyclic Compounds, July 12-17, 1988.

Invited Lectures

182. Truman State University, February 24, 2017
181. Knox College, February 25, 2016
180. Western Kentucky University, April 24, 2015
179. University of Arkansas, April 28, 2014
178. University of Göttingen, November 18, 2013
177. University of Giessen, November 15, 2013
176. University of Münster, November 13, 2013
175. University of Cologne, November 11, 2013
174. Technical University of Aachen, November 8, 2013
173. University of Leipzig, November 5, 2013
171. "Some Chemistry of Allylic and Allenic Sulfones." Presented at the Scott E. Denmark Symposium, University of Illinois-Champaign/Urbana, August 3, 2013.
170. "Some Chemistry of Allylic and Allenic Sulfones." Presented the 1st Cal Meyers Organic Memorial Symposium, Southern Illinois University-Carbondale, April 6, 2013.
169. "Something Old, Something New, Something Borrowed, Something Benzothiazine." Presented at the 13th Annual Florida Heterocyclic Conference, Gainesville, Florida, March 4-7, 2012.
168. St. Louis University, December 9, 2011
167. University of Nevada-Reno (Sigma-Aldrich Lectureship) October 21, 2011
166. University of Strasbourg, September 30, 2011
165. University of Nice, September 16, 2011
164. University of Marseille, September 14, 2011
163. University of Toulouse, September 13, 2011
162. "Aspects of Serendipity in Organic Chemistry." Presented at the 52nd Groupe d'Etudes de Chimie Organique (GECO) Conference; Aber-Wrachs, France, August 28-September 2, 2011.
161. University of Alberta, June 13, 2011
160. The University of Tokyo, March 9, 2011
159. Keio University, March 8, 2011
158. Tokyo Institute of Technology, March 4, 2011
157. Nagoya University, March 2, 2011
156. Kanazawa University, March 1, 2011
155. Kyoto University, February 25, 2011
154. Osaka University, February 24, 2011
153. Hiroshima University, February 22, 2011
152. Osaka Prefecture University, February 21, 2011
151. Truman State University, December 3, 2010
150. "From (4+3)-Cycloadditions to Deantiaromatizations." Presented at the Fachbereichstag 2010 Justus Liebig Universität Giessen, July 13, 2010.
149. University of Nebraska-Kearney, November 13, 2009
148. "Deantiaromatization: Warts and All" Presented at the Symposium on Medicinal Chemistry and Natural Products: Advances in Synthesis, Paper #306. 44th Midwest Regional Meeting of the American Chemical Society, October 21-24, 2009, Iowa City, Iowa.

147. The University of Alabama, February 19, 2009
146. Miami University, October 9, 2008
145. University of Freiburg, June 30, 2008
144. Univeristy of Giessen, June 26, 2008
143. Pierre and Marie Curie University (Paris), June 23, 2008
142. Leibniz Institute of Plant Biochemistry, Halle, June 17, 2008
141. Bayer Crop Science, Monheim, June 16, 2008
140. BASF- Ludwigshafen, June 10, 2008
139. University of Duisberg-Essen, May 19, 2008
138. Institute of Organic Chemistry, Polish Academy of Sciences, May 15, 2008
137. Scripps Research Institute, March 14, 2008
136. Roche, Palo Alto, March 12, 2008
135. University of California-Berkeley, March 11, 2008
134. Exelixis, March 10, 2008
133. Truman State University, October 12, 2007
132. "Benzothiazines in Organic Synthesis." Presented at the 8th Annual Florida Heterocyclic Conference, Gainesville, Florida, March 11-14, 2007.
131. Novartis (Basel), October 19, 2006
130. University of Basel, October 20, 2006
129. Eidgenössische Technische Hochschule (Zürich), October 23, 2006
128. University of Zürich, October 24, 2006
127. Lonza (Visp, Switzerland), October 26, 2006
126. "Benzothiazines in Organic Synthesis." Presented at the 12th Symposium on the Latest Trends in Organic Synthesis, Brock University, August 9-12, 2006.
125. "Benzothiazines in Organic Synthesis." Presented at the Gordon Research Conference on Organic Reactions and Processes, Bryant University, July 16-21, 2006.
124. Edwards Air Force Base, May 16, 2006
123. Texas A&M University, April 20, 2006
122. University of Texas-Austin, April 19, 2006
121. University of Missouri-Kansas City, February 9, 2006
120. University of Cologne, December 6, 2005
119. Max Planck Institute for Coal Research, December 5, 2005
118. Technical University of Aachen, December 2, 2005
117. Eli Lilly (Belgium), December 1, 2005
116. University of Giessen, November 29, 2005
115. University of Darmstadt, November 28, 2005
114. "From 4+3 Cycloadditions to the Retro-Nazarov Reaction." Presented at the 88th Canadian Chemistry Conference and Exhibition, May 28-June 1, 2005, Saskatoon, Saskatchewan, Canada.
113. University of Illinois-Chicago, May 20, 2005
112. Merck, January 27, 2005
111. CV Therapeutics, January 12, 2005
110. Chungnam National University, October 14, 2004
109. Korea Advanced Institute of Science and Technology, October 14, 2004
108. Korea Advanced Institute of Science and Technology, October 13, 2004
107. Suggyukwan University, October 12, 2004

106. Korea Institute of Science and Technology, October 11, 2004
105. University of British Columbia, October 14, 2003
104. "Synthesis and Chemistry of 2,1-Benzothiazines." Presented at the 9th International Congress on Heterocyclic Chemistry, August 10-15, 2003, Fort Collins, Colorado.
103. University of Liverpool, April 9, 2003
102. University of Edinburgh, April 7, 2003
101. University of Leeds, April 4, 2003
100. University of Sheffield, April 3, 2003
99. AstraZeneca, Alderley Park, April 2, 2003
98. University of Manchester, March 31, 2003
97. Abbott Laboratories, February 24, 2003
96. University of Freiburg, November 18, 2002
95. University of Strasbourg, November 15, 2002
94. University of Mulhouse, November 14, 2002
93. University of Konstanz, November 13, 2002
92. University of Basel, November 11, 2002
91. Indiana University, October 28, 2002
90. Eli Lilly, October 1, 2002
89. North Dakota State University, September 16, 2002
88. "Benzothiazines in Asymmetric Synthesis." Presented at the 14th International IUPAC Conference on Organic Synthesis, Christchurch, New Zealand, July 14-18, 2002.
87. Medichem (Woodridge, IL), December 18, 2001
86. University of Hannover, December 4, 2001
85. University of Göttingen, December 3, 2001
84. University of Clausthal, November 29, 2001
83. Schering AG, Berlin, November 28, 2001
82. University of Strasbourg, November 26, 2001
81. "Studies of Real and Formal Cycloaddition Processes." Paper PL7 presented at the 25th Senior Technical Meeting of the American Chemical Society, San Juan, Puerto Rico, November 2-3, 2001.
80. "Synthesis and Applications of Chiral, Nonracemic Benzothiazines" Presented at the Symposium on Asymmetric Organic Synthesis-Methodology and Total Synthesis, Paper #159. 36th Midwest Regional Meeting of the American Chemical Society, October 10-13, 2001, Lincoln, Nebraska.
79. Southeast Missouri State University, November 8, 2000
78. University of Tübingen, October 19, 2000
77. University of Freiburg, October 18, 2000
76. University of Strasbourg, October 17, 2000
75. University of Heidelberg, October 16, 2000
74. Technical University of Aachen, October 13, 2000
73. University of Mainz, October 12, 2000
72. University of Cologne, October 11, 2000
71. University of Georgia-Athens, September 21, 2000
70. Emory University, September 20, 2000
69. Georgia Institute of Technology, September 19, 2000

68. "Intramolecular 4+3 Cycloadditions: Aspects of Stereocontrol in the Synthesis of Cyclooctanoids." Presented at the Symposium on Higher Order Cycloadditions in Synthesis Paper ORGN 4. 220th National Meeting of the American Chemical Society, August 20-23, 2000, Washington, D.C.
67. University of Connecticut-Storrs, April 27, 2000
66. Pharmacia & Upjohn, March 13, 2000
65. Monsanto/Searle, February 23, 2000
64. University of Karlsruhe, June 9, 1999
63. University of Strasbourg, May 21, 1999
62. University of Freiburg, May 17, 1999
61. University of Regensburg, May 12, 1999
60. Ludwig-Maximilians University of Munich, May 10, 1999
59. Technical University of Braunschweig, February 10, 1999
58. University of Kiel, January 14, 1999
57. University of Hannover, January 5, 1999
56. University of Göttingen, December 7, 1998
55. University of Illinois-Urbana/Champaign, May 13, 1998
54. Southeast Missouri State University, October 15, 1997
53. "Heteroatom-Stabilized Allylic Cations in 4+3 Cycloadditions." Presented at the 38th Groupe d'Etudes de Chimie Organique (GECO) Conference; Mittelwihr, France, August 24-29, 1997.
52. University of Stuttgart, August 21, 1997
51. University of Würzburg, August 20, 1997
50. University of Heidelberg, August 19, 1997
49. Boston University, May 29, 1997
48. Brandeis University, May 28, 1997
47. Boston College, May 27, 1997
46. Monsanto Company, January 10, 1997
45. University of California-Riverside, November 15, 1996
44. University of Southern California, November 13, 1996
43. California Institute of Technology, November 12, 1996
42. Ligand Pharmaceuticals, November 11, 1996
41. Southeast Missouri State University, October 16, 1996
40. University of Bonn, September 20, 1996
39. Technical University of Aachen, September 18, 1996
38. University of Göttingen, September 17, 1996
37. University of Marburg, September 16, 1996
36. University of Strasbourg, September 13, 1996
35. "Molecular Clefts Derived from Kagan's Ether. Synthesis and Solid State Inclusion Complexes of a Chiral Molecular Tweezer." Presented at the 9th International Symposium on Molecular Recognition and Inclusion; Lyon, France; September 7-12, 1996.
34. Ecole Supérieure de Chimie Industrielle de Paris, September 4, 1996
33. Regis Technologies, Inc., May 30, 1996
32. G.D. Searle, September 28, 1995
31. "Heteroatom Stabilized Allylic Cations in 4+3 Cycloadditions." M. Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 16-21, 1995.

30. Wichita State University, March 29, 1995
29. University of Kansas, February 20, 1995
28. Kansas State University, February 16, 1995
27. Southern Illinois University-Carbondale, November 10, 1994
26. Procter & Gamble, October 26, 1994
25. "Intramolecular 4+3 Cycloadditions. Recent Mechanistic and Synthetic Studies."
Presented at the Symposium on Reagents and Mechanisms in Organic Chemistry Paper #384. Joint Great Lakes/Central Regional Meeting of the American Chemical Society, Ann Arbor, June 1-3, 1994.
24. The Upjohn Company, May 31, 1994
23. Northwestern University, April 28, 1994
22. Abbott Laboratories, April 27, 1994
21. University of Illinois-Chicago, April 26, 1994
20. University of Missouri-St. Louis, November 22, 1993
19. Ohio State University, November 4, 1993
18. University of Minnesota, October 8, 1993
17. R.W. Johnson Pharmaceutical, August 5, 1993
16. "Useful Synthetic Transformations of Benzothiazines." M. Harmata. Presented at the Gordon Research Conference on Organic Reactions and Processes, July 11-16, 1993.
15. Fifth Annual Organic Chemistry Day. University of Missouri-Columbia. April 27, 1992
14. Southwest Missouri State University, October 2, 1991
13. Twenty Second Annual NSF Workshop on Organic Synthesis and Natural Products Chemistry, July 10-14, 1991.
12. University of Illinois-Urbana, May 1, 1991
11. University of California-Riverside, March 15, 1991
10. University of California-Irvine, March 14, 1991
9. University of California-Santa Barbara, March 13, 1991
8. University of California-Santa Cruz, March 11, 1991
7. Washington University, October 19, 1990
6. "Synthetic Application of Sulfoximidoyl Chlorides". Presented at the Symposium on Post Modern Organic Synthesis Paper #216. Joint 45th Northwest/10th Rocky Mountain Regional Meeting of the American Chemical Society, Salt Lake City, June 13-15, 1990.
5. University of Iowa, December 5, 1989
4. Merck, Sharp and Doehme, October 23, 1989
3. Monsanto Agricultural Company, August 10, 1989
2. University of Nebraska-Lincoln, April 24, 1989
1. University of Kansas, April 20, 1989

Departmental Service Activities

Fall 2016-present	Colloquium Coordinator
2015	Member, Departmental Promotion and Tenure Committee of Assistant Professor Justin Walensky
2013	Member, Departmental Promotion Committee of Associate Professor Timothy Glass
2012-present	Chair, Thomas Lecture Committee

2011 Member, Departmental Promotion Committee of Associate Professor Thomas Sewell

2010-2013 Personnel Committee, Member

2009-2012 Colloquium Chair

2005-2016 Opportunity Committee, Member

2005 Member, Departmental Promotion Committee of Associate Professor Jack Tanner

2005 Chair, Departmental Promotion and Tenure Committee of Assistant Professor Timothy Glass

2004 Physical Search Committee, Member

2002 Organic Search Committee, Member

2001 Organic Search Committee, Chair

2001-2016 Leaders/Development Committee, Member

2001 Chair, Departmental Promotion Committee of Associate Professor Kent Gates

2001-present Library Representative

2000-present Organizer, Organic Chemistry Day

2000-2006 Colloquium Chair

1998-2012 Member, Thomas Scholar Lecture Committee

1998 Chair, Third Year Evaluation Committee of Assistant Professor Shon Pulley

1997 Chair, Departmental Promotion and Tenure Committee of Assistant Professor Kent Gates

1997-1998 Colloquium Chair

Fall 1996 Colloquium Co-chair

1996-1998 Personnel Committee, Member

1996 Mass Spectroscopist Search Committee

1995 Chair, Thomas Chemistry Scholars Lecture Committee

1994-95 Chair, Organic Search Committee

1994 Chair, Departmental Promotion and Tenure Committee of Assistant Professor Rainer Glaser

1994 Member, Thomas Chemistry Scholars Lecture Committee

1993-1998 Organizer, Organic Chemistry Day

1993 Chemistry Chair Search Committee, Member

1993-94 Chair, Organic Search Committee

1993-1994 Graduate Program Committee

1993-1996 Building Committee

1993-1998 Departmental Library Representative/Reading Room Coordinator

1993 Chair, Temporary Organic Faculty Search Committee

1993 Chair, Fourth Year Evaluation Committee of Assistant Professor Rainer Glaser

1993 Member, Second Year Evaluation Committee of Assistant Professor Silvia Jurisson

1992-1996 Chairman's Advisory Committee, Member

1991-1993 Colloquium Chair

1992 Member, First Year Evaluation Committee of Assistant Professor John Kauffman

1990-1992	Member, Undergraduate Committee
1990	Principal Author, Departmental Five Year Plan
1989	Assisted in establishing an Undergraduate Research Fellowship program by obtaining funds for the program from the Monsanto Agricultural Company.
1988-90	Member, Departmental Long Range Planning Committee
1988-1996	Editor/Designer, Organic Chemistry Brochure
1987-93	Co-organizer, Organic Chemistry Day Symposium
1987-1998	Secured funding for Organic Chemistry Day symposium from the Monsanto Agricultural Company.
1987-1998	Established the "Pfizer Lecture Series" by securing the necessary funds from Pfizer Central Research.
1987-1992	Member, Organic Search Committee
1987-90	Colloquium Chairman

University Service Activities

2011-present	NMR Committee, Member
2005-2007	Core Review Committee, Member
2002-2005	Office of Research Advisory Committee
2001-2005	NMR Committee, Member
2000-2003	Member, College of Arts and Science Executive Committee
December 23, 1997	NSF Major Research Instrumentation Preproposal Committee
1997-1998	Chair, Faculty International Travel Fund Committee
1996-1998	Faculty International Travel Fund Committee, Member
1994-1998	NMR Committee, Member
1992-1994	Member, Graduate Faculty Senate (Membership Committee)
1991-present	Grant Reviewer for University of Missouri Research Board

Professional Service Activities

2017	Chair-Elect, University of Missouri Local Section of the American Chemical Society
August 2016	Evaluator for the "Liebig College" program at the Justus Liebig Universität
Spring 2016	Member, ACS Awards Committee, Details Confidential
2016	Chairman, University of Missouri Local Section of the American Chemical Society
2015-present	Editorial Board, <i>Chemistry</i> SELECT
2015	NSF <i>ad hoc</i> proposal reviewer
2015	Member (<i>ad hoc</i>), Study Section on Synthetic and Biological Chemistry (A)
2015	Outside evaluator for tenure and promotion case
2015	Chair-Elect, University of Missouri Local Section of the American Chemical Society
2014	Outside evaluator for promotion case

2014 Organizer, Symposium entitle Organic Synthesis in the SEC at the 49th Annual Regional Meeting of the American Chemical Society, November 12-15, 2014; Columbia, Missouri.

November, 2014 NIH review panel on Fellowships: Synthetic and Biological Chemistry F04-A(20)L

2014 Chairman, University of Missouri Local Section of the American Chemical Society

2011-2013 Organizer, Scott E. Denmark Symposium, University of Illinois-CU, August 3, 2013

2013 Chairman-Elect, University of Missouri Local Section of the American Chemical Society

May 2011 Outside evaluator for promotion case

June 13, 2011 External examining committee member for the doctoral final oral examination of Jeffrey Johnston, University of Alberta.

September 2010 Outside evaluator for promotion case

July 2010 Outside evaluator for promotion case

October 2009 NSF Instrumentation Panel

August 2009 Outside evaluator for promotion/tenure case.

2009 Discussion Leader. Gordon Research Conference on Organic Reactions and Processes, July 19-24, 2009.

October 2008 Outside evaluator for promotion/tenure case.

April 1-2, 2008 NSF Organic Dynamics Proposal Panel

March 6, 2008 Member, Study Section F04A (NIH)

2007-2010 Editorial Board, *Letters in Organic Chemistry*

2007 Guest Editor, *Synthesis* issue dedicated to Professor Paul A. Wender, August 2, 2007

2007 Organized Paul A. Wender 60th birthday symposium at Stanford University

2006 Outside evaluator for tenure and promotion case

October, 2005 Member (*ad hoc*), Study Section on Synthetic and Biological Chemistry (B)

2005 Outside evaluator for promotion/tenure case.

2004 Outside evaluator for promotion/tenure case.

2004 Discussion Leader. Gordon Research Conference on Organic Reactions and Processes, July 18-23, 2004.

January 13, 2004 Gave presentation to Girl Scout Troop 390 in conjunction with their "Science Sleuth" badge work. We covered atoms, bonding, chirality, crystallization, color and light and vibrations. Several experiments were conducted in conjunction with the presentation.

2003 Organizer/Moderator of Symposium entitled "Towards the Ideal Synthesis" held at the 39th Annual Midwest Regional Meeting of the American Chemical Society, Columbia, Missouri, November 5-7, 2003.

2003 Discussion Leader. Gordon Research Conference on Organic Reactions and Processes, July 20-25, 2003.

2003-present Editorial Board, *Mini Reviews in Organic Chemistry*

2002-present Editor, *Strategies and Tactics in Organic Synthesis*

2002-2010 Member, *Chemtracts* Organic Chemistry Board

2001 Outside evaluator for promotion/tenure case.

2000 Session Chair, Total Synthesis and Process R&D, 220th National Meeting of the American Chemical Society, Washington, D.C., August 20-23, 2000.

2000 Chair. Gordon Research Conference on Organic Reactions and Processes, July 16-21, 2000.

1999 Vice Chair. Gordon Research Conference on Organic Reactions and Processes, July 11-16, 1999.

1998 Discussion Leader. Gordon Research Conference on Organic Reactions and Processes, July 12-17, 1998.

1997 Discussion Leader. Gordon Research Conference on Organic Reactions and Processes, August 3-8, 1997.

May 20, 1997 EPA Peer Review Panel (Chemistry for a Sustainable Environment)

1997-2001 Senior Editor for *Advances in Cycloaddition* (JAI Press) beginning with Volume 5.

1996 Discussion Leader. Gordon Research Conference on Organic Reactions and Processes, July 14-19, 1996.

1994-present Grant reviewer for the Research Corporation

1994-1996 Member, Canvassing Committee, Ernest Guenther Award

1993 Chairman and Organizer of symposium entitled "Recent Advances in the Chemistry of Ene-diyne." Twenty Eighth Midwest Regional Meeting of the American Chemical Society, Columbia, November 10-12, 1993

1993 Discussion Leader. Gordon Research Conference on Organic Reactions and Processes, July 11-16, 1993.

1993 Chairman, University of Missouri Local Section of the American Chemical Society

March 19, 1992 Site Coordinator, ACS Satellite TV Course: PURE ENANTIOMERS: SEPARATION, SYNTHESIS, ANALYSIS

1992-1993 President, Sigma Xi, University of Missouri Local Chapter

1992 Chairman-Elect, University of Missouri Local Section of the American Chemical Society

1991-1992 Vice-President, Sigma Xi, University of Missouri Local Chapter

1991-present Grant reviewer for the National Science Foundation

1989 National Chemistry Week, 1989. Appeared on Missouri Forum, a local television talk show, to debate an environmentalist regarding the impact of chemistry on society. The local ACS section was subsequently given an award from the national organization for the best media coverage of NCW activities as a result of this program.

1989 Book reviewer for the Journal of the American Chemical Society and Iowa State University Press.

1987-present Grant reviewer for the Petroleum Research Fund.

1986-present Referee: Angewandte Chemie
 Arkivoc
 Beilstein Journal of Organic Chemistry
 Bioorganic and Medicinal Chemistry Letters
 Canadian Journal of Chemistry
 Chemical Communications
 Chemical Reviews

Chemical Science
Chemical Society Reviews
Chemistry A European Journal
Chemistry Letters
Enantiomer
European Journal of Organic Chemistry
Journal of Heterocyclic Chemistry
Journal of Organic Chemistry
Journal of Physical Organic Chemistry
Journal of Supramolecular Chemistry
Journal of the American Chemical Society
Minireviews in Organic Chemistry
New Journal of Chemistry
Organic and Biomolecular Chemistry
Organic Letters
Synlett
Synthesis
Tetrahedron
Tetrahedron Letters
Tetrahedron: Asymmetry

Community Service

1999-2007 Volunteer, Ridgeway Elementary School, Columbia, Missouri
1997-1998 Volunteer, Ridgeway Elementary School, Columbia, Missouri
1993-1998 Member, Advisory Board, Cherchez La Femme Birth Center

Courses Taught

Fall 2017 Chemistry 8160, Organic Spectroscopy
Chemistry 9090, Graduate Thesis Research
Summer 2017 Chemistry 9090, Graduate Thesis Research
Spring 2017 Chem 8170, Applications of Organic Reactions
Chemistry 8087, Seminar
Chemistry 9090, Graduate Thesis Research
Fall 2016 Chemistry 8160, Organic Spectroscopy
Chemistry 8087, Seminar
Chemistry 9090, Graduate Thesis Research
Summer 2016 Chemistry 9090, Graduate Thesis Research
Spring 2016 Chem 4160, Intermediate Organic Chemistry
Chem 8090, Graduate Thesis Research
Chem 4950, Undergraduate Research
Fall 2015 Chemistry 8160, Organic Spectroscopy
Chemistry 8090/9090, Graduate Thesis Research

Spring 2015	Chemistry 4950, Undergraduate Research Chem 8170, Applications of Organic Reactions Chemistry 9090, Graduate Thesis Research
Fall 2014	Chemistry 8160, Organic Spectroscopy Chemistry 8090/9090, Graduate Thesis Research
Summer 2014	Chemistry 9090, Graduate Thesis Research
Spring 2014	Chem 8170, Applications of Organic Reactions Chemistry 4950, Undergraduate Research Chemistry 9090, Graduate Thesis Research
Fall 2013	Chemistry 8160, Organic Spectroscopy Chemistry 4950, Undergraduate Research Chemistry 8090/9090, Graduate Thesis Research
Summer 2013	Chemistry 8090/9090, Graduate Thesis Research
Spring 2013	Chem 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research Chemistry 4950, Undergraduate Research
Fall 2013	Chemistry 8160, Organic Spectroscopy Chemistry 8090/9090, Graduate Thesis Research Chemistry 4950, Undergraduate Research
Summer 2013	Chemistry 8090/9090, Graduate Thesis Research Chemistry 4950, Undergraduate Research
Spring 2013	Chem 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research Chemistry 4950, Undergraduate Research
Fall 2012	Chemistry 8160, Organic Spectroscopy Chemistry 8090/9090, Graduate Thesis Research
Summer 2012	Chemistry 8090/9090, Graduate Thesis Research
Spring 2012	Chem 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research
Fall 2011	Chemistry 8160, Organic Spectroscopy Chemistry 8090/9090, Graduate Thesis Research
Summer 2011	Chemistry 8090/9090, Graduate Thesis Research
Spring 2011	Chem 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research
Fall 2010	Chemistry 2050, Introduction to Organic Chemistry Chemistry 8090/9090, Graduate Thesis Research
Summer 2010	Chemistry 8090/9090, Graduate Thesis Research Chem 4950, Undergraduate Research
Spring 2010	Chem 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research
Fall 2009	Chemistry 2050, Introduction to Organic Chemistry Chemistry 8090/9090, Graduate Thesis Research
Summer 2009	Chemistry 8090/9090, Graduate Thesis Research
Spring 2009	Chem 8170, Applications of Organic Reactions Chem 4950, Undergraduate Research Chemistry 8090/9090, Graduate Thesis Research

Fall 2008	Chemistry 8090/9090, Graduate Thesis Research Chem 2950, Undergraduate Research
Summer 2008	Chemistry 8090/9090, Graduate Thesis Research Chem 4950, Undergraduate Research
Winter 2008	Chem 8170, Applications of Organic Reactions Chem 4950, Undergraduate Research
Fall 2007	Chemistry 8090/9090, Graduate Thesis Research Chemistry 2050, Introduction to Organic Chemistry
Summer 2007	Chemistry 8090/9090, Graduate Thesis Research Chemistry 4950, Undergraduate Research
Winter 2007	Chemistry 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research
Fall 2006	Chemistry 2050, Introduction to Organic Chemistry Chemistry 8090/9090, Graduate Thesis Research
Summer 2006	Chemistry 4950, Undergraduate Research Chemistry 8090/9090, Graduate Thesis Research
Winter 2006	Chemistry 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research
Fall 2005	Chemistry 8160, Organic Spectroscopy Chemistry 8090/9090, Graduate Thesis Research
Summer 2005	Chemistry 4950, Undergraduate Research Chemistry 8090/9090, Graduate Thesis Research
Winter 2005	Chemistry 8170, Applications of Organic Reactions Chemistry 8090/9090, Graduate Thesis Research
Fall 2004	Chemistry 8160, Organic Spectroscopy Chemistry 8090, Graduate Thesis Research
Summer 2004	Chemistry 250, Undergraduate Research Chemistry 490, Graduate Thesis Research
Winter 2004	Chemistry 417, Applications of Organic Reactions Chemistry 490, Graduate Thesis Research Chemistry 410, Organic Seminar
Fall 2003	Chemistry 416, Organic Spectroscopy Chemistry 490, Graduate Thesis Research Chemistry 410, Organic Seminar
Summer 2003	Chemistry 250, Undergraduate Research Chemistry 490, Graduate Thesis Research
Winter 2003	Chemistry 417, Applications of Organic Reactions Chemistry 490, Graduate Thesis Research
Fall 2002	Chemistry 401, Organometallics in Organic Synthesis Chemistry 410, Organic Seminar Chemistry 490, Graduate Thesis Research
Summer 2002	Chemistry 490, Graduate Thesis Research
Winter 2002	Chemistry 417, Applications of Organic Reactions Chemistry 490, Graduate Thesis Research
Fall 2001	Chemistry 490, Graduate Thesis Research

	Chemistry 298, Senior Research
Summer 2001	Chemistry 490, Graduate Thesis Research
Winter 2001	Chemistry 417, Applications of Organic Reactions Chemistry 490, Graduate Thesis Research
Fall 2000	Chemistry 212, Organic Chemistry II Chemistry 490, Graduate Thesis Research
Summer 2000	Chemistry 490, Graduate Thesis Research
Winter 2000	Chemistry 417, Applications of Organic Reactions Chem 490, Graduate Thesis Research
Fall 1999	Chemistry 212, Organic Chemistry II Chemistry 490, Graduate Thesis Research
Winter 1999	Research Leave
Fall 1998	Research Leave
Summer 1998	Chemistry 490, Graduate Thesis Research
Winter 1998	Chemistry 417, Applications of Organic Reactions Chemistry 490, Graduate Thesis Research
Fall 1997	Chemistry 415, Organic Reaction Mechanisms Chemistry 490, Graduate Thesis Research
Summer 1997	Chemistry 490, Graduate Thesis Research Chemistry 150, Undergraduate Research
Winter 1997	Chemistry 417, Applications of Organic Reactions Chemistry 299, Senior Research
Fall 1996	Chemistry 490, Graduate Thesis Research Chemistry 490, Graduate Thesis Research Chemistry 298, Senior Research Biology 296, Undergraduate Research
Summer 1996	Chemistry 490, Graduate Thesis Research Chemistry 250, Undergraduate Research
Winter 1996	Chemistry 316, Synthetic Organic Chemistry Chemistry 490, Graduate Thesis Research
Fall 1995	Chemistry 115, Organic Chemistry Chemistry 490, Graduate Thesis Research
Summer 1995	Chemistry 490, Graduate Thesis Research Biochemistry 294, Undergraduate Research
Winter 1995	Chemistry 210, Organic Chemistry I Chemistry 490, Graduate Thesis Research Chemistry 298, Senior Research Chemistry 250, Undergraduate Research
Fall 1994	Chemistry 401, Molecular Stereochemistry Chemistry 490, Graduate Thesis Research Chemistry 298, Senior Research Chemistry 250, Undergraduate Research
Summer 1994	Chemistry 490, Graduate Thesis Research Chemistry 150, Undergraduate Research
Winter 1994	Chemistry 316, Synthetic Organic Chemistry Chemistry 213, Organic Lab (Half Semester)

	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
	Chemistry 150, Undergraduate Research
Fall 1993	Chemistry 212, Organic Chemistry II
	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
	Chemistry 150, Undergraduate Research
Summer 1993	Chemistry 490, Graduate Thesis Research
Winter 1993	Chemistry 212 Organic Chemistry II
	Chemistry 490, Graduate Thesis Research
	Chemistry 410, Organic Seminar
Fall 1992	Chemistry 401, Introduction to Heterocyclic Chemistry
	Chemistry 490, Graduate Thesis Research
	Chemistry 410, Organic Seminar
Summer 1992	Chemistry 490, Graduate Thesis Research
Winter 1992	Chemistry 417, Strategies and Tactics in Organic Synthesis
	Chemistry 490, Graduate Thesis Research
Fall 1991	Chemistry 416, Organic Spectroscopy
	Chemistry 490, Graduate Thesis Research
Summer 1991	Chemistry 490, Graduate Thesis Research
Winter 1991	Chemistry 210, Organic Chemistry I
	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
Fall 1990	Chemistry 416, Organic Spectroscopy
	Chemistry 490, Graduate Thesis Research
	Chemistry 150, Undergraduate Research
Summer 1990	Chemistry 490, Graduate Thesis Research
Winter 1990	Chemistry 316, Synthetic Organic Chemistry
	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
Fall 1989	Chemistry 210, Organic Chemistry I
	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
Summer 1989	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
Winter 1989	Chemistry 316, Synthetic Organic Chemistry
	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
Fall 1988	Chemistry 415, Organic Reaction Mechanisms
	Chemistry 490, Graduate Thesis Research
	Chemistry 250, Senior Research
Summer 1988	Chemistry 490, Graduate Thesis Research
Winter 1988	Chemistry 210, Organic Chemistry I
	Chemistry 211, Organic Chemistry Laboratory I
	Chemistry 410, Organic Seminar
	Chemistry 490, Graduate Thesis Research

Fall 1987 Chemistry 250, Senior Research
 Chemistry 150, Undergraduate Research
 Chemistry 410, Organic Seminar
 Chemistry 490, Graduate Thesis Research
 Summer 1987 Chemistry 150, Undergraduate Research
 Chemistry 490, Graduate Thesis Research
 Winter 1987 Chemistry 316, Synthetic Organic Chemistry
 Chemistry 490, Graduate Thesis Research
 Fall 1986 Chemistry 210, Organic Chemistry I. Served as a substitute for a colleague for 3.5 weeks.

Other Teaching Activities

Summer, 1990 Moderator of a weekly brown bag seminar that served as a review and question and answer session with particular emphasis on fundamental aspects of organic reactivity and mechanism.

1986-1990 Co-organizer of a weekly meeting of all organic chemistry graduate students and faculty. This meeting was designed to provide members of the organic division with a forum for the discussion of research progress, the current literature and other issues in organic chemistry.

1986-present Every week my research group has a 2-3 hour meeting to discuss research and the current literature, and to engage in problem solving.

Pre-/Post-Degree Students

Entry	Name	Degree (Year)	Last Known Location
1	Chandra B. Gamlath	Ph.D. (1992)	Pfizer, St. Louis
2	Sriram Tyagarajan	MS (1992)	Merck
3	R.J. Claassen II	Ph.D. (1993)	Exxon
4	Barry F. Herron	Ph.D. (1993)	Faculty, Johnson County Community College
5	Gilbert Adenu	MS (1993)	Unknown
6	Mehmet Kahraman	MS (1994)	See Below
7	Saleh Elomari	Ph.D. (1995)	Chevron
8	Darin E. Jones	Ph.D. (1996)	Faculty, University of Arkansas-Little Rock

9	Kevin W. Carter	Ph.D. (1997)	Addivant
10	Mehmet Kahraman	Ph.D. (1998)	Aragon Pharmaceuticals
11	Yanhong Wu	MS (1998)	Shanghai Yinland Investment Co.,Ltd
12	James Brackley	MS (2001)	GlaxoSmithKline
13	Laszlo Kürti	MS (2001)	Faculty, Rice University
14	Paitoon Rashatasakhon	Ph.D. (2002)	Faculty, Chulalongkorn University
15	Gary Bohnert	Ph.D. (2003)	GSK
16	Patrick Kirchhoefer	Ph.D. (2004)	EAG Laboratories
17	Soo Yeun Kim	MS (2005)	Unknown
18	Yimin Fan	MS (2005)	Unknown
19	Sumrit Wacharasindhu	Ph.D. (2005)	Faculty, Chulalongkorn University
20	Xuechuan Hong	Ph.D. (2005)	Faculty, Wuhan University
21	Dong Reyoul Lee	Ph.D. (2006)	EAG Laboratories
22	Kanok-an Rayonil	Ph.D. (2007)	Faculty, Silpakorn University
23	Gayatri Balan	MS (2007)	Pfizer, Groton
24	Maria G. Gomes	Ph.D. (2007)	Toronto Research Chemicals, Inc.
25	Pinguan Zheng	Ph.D. (2007)	Eastman
26	Yuan Liu	MS (2008)	Unknown
27	Chaofeng Huang	Ph.D. (2009)	Avid Pharmaceuticals
28	Weijiang Ying	Ph.D. (2009)	Avomeen Analytical Services
29	Xuefeng Gao	MS (2009)	See Below
30	Nathan Calkins	Ph.D. (2010)	Faculty, Mineral Area College
31	Zhengxin Cai	Ph.D. (2011)	Associate Research Scientist, Yale University

32	Nattawut Yongpruksa	Ph.D. (2011)	TPI Polene Co., Ltd.
33	Aswin Garimallaprabhakaran	Ph.D. (2011)	Unknown
34	Xuefeng Gao	Ph.D. (2012)	Postdoctoral, Washington University
35	Erich Altenhofer	Ph.D. (2014)	Arrowhead Pharmaceuticals
36	Carrisa S. Hampton	Ph.D. (2014)	Postdoctoral, St. Lous University
37	Rama Rao Tata	Ph.D. (2015)	EAG Laboratories
38	Michael Topinka	Current	MU
39	Chencheng Fu	Current	MU
40	Wenkai Xiao	Current	MU
41	Salman Saidi	Current	MU