

## Mark S. Erickson, Ph.D.

Hartwick College, Johnstone 457  
Oneonta, New York 13820  
(607) 431-4758

e-mail: [ericksonm@hartwick.edu](mailto:ericksonm@hartwick.edu)  
web: <http://users.hartwick.edu/ericksonm>

### Education:

Ph.D.	1992	Organic Chemistry	Louisiana State University; Baton Rouge, Louisiana
B.A.	1984	Chemistry (ACS)	Hamline University; St. Paul, Minnesota

### Professional Experience:

2003 - Present	<b>Associate Professor of Chemistry, Hartwick College</b>
1998-2003	<b>Assistant Professor of Chemistry, Hartwick College</b>
2003-present	<b>Consultant and Author, Cengage Learning (Brooks/Cole)</b>
1998	<b>Consultant, Molecular Design International, Memphis, TN</b>
1994-1998	<b>Assistant Professor of Chemistry, University of Mississippi</b>
1992-1994	<b>ONT/ASEE Postdoctoral Fellow, U.S. Naval Research Lab, Washington, D.C.</b>
1987-1992	<b>Teaching/Research Assistant, Louisiana State University, Baton Rouge, LA</b>
1985-1986	<b>Substrate Engineer, IBM, Endicott, NY</b>
1984	<b>Intern Chemist, Medtronics, Inc., Brooklyn Center, MN</b>

### Active Professional Affiliations, Committees, and Service:

American Chemical Society (ACS) and Binghamton (NY) Local Chapter  
Hartwick College Fly Fishing Club (Founder and Faculty Advisor, 2006-present)  
Scholarship Committee (2000-2008,2010)  
Pre-Engineering Committee (2000-present)  
Pre-Allied Health Committee (1999-present)  
Student Life Trustee Committee (2009-2011)  
SUMMA Task Force (2011)  
Student Life Director and Assistant Director Hiring Committee (2010-2011)  
New Faculty Mentor (2011)  
Hartwick College NMR Spectrometer Facilities Manager (2000-present)

### Invited Presentations:

“Synthesis of Aromatic Compounds Linked by an Extended  $\pi$ -Backbone.”

University of Wisconsin, La Crosse, 1998

Mississippi College, 1998

University of Southern Mississippi, 1997

University of Alabama, Birmingham, 1997

“Career Opportunities in Chemistry.”

Laurens (NY) Central School, 2002

Mississippi School for Math and Science, Columbus, Mississippi, 1996

“Cyclopentadienyls: From Ferrocenes to Fullerenes.”

University of Memphis, 1995

University of Central Arkansas, 1995

University of Mississippi, 1994

George Mason University, 1993

Heidelberg College, 1993

Davidson College, 1992

### **Paper and Poster Presentations:**

"Developing Green Diels-Alder Reactions for the Undergraduate Organic Laboratory" Erickson, M.S.; *242nd American Chemical Society National Meeting*, Denver, CO., August 2011.

"Native Plants Used to Treat Malaria in the Northern Hill Tribes of Thailand" **Lin, J.**; Erickson, M.S.; Swift, L.; *Hartwick College Scholar Showcase*, May 2010.

"2-Furfuryl Alcohol as a Diene for Green Diels-Alder Reactions" **Sturm, C.E.** and Erickson, M.S.; *Hartwick College Scholar Showcase*, May 2010.

"Green Chemistry at Hartwick College" Erickson, M.S.; *Hartwick College Faculty Lecture Series*, Oneonta, NY, April 15, 2011.

"2-Furfuryl Alcohol as a Diene for Green Diels-Alder Reactions" **Sturm, C.E.** and Erickson, M.S.; *241st American Chemical Society National Meeting*, Anaheim, CA., March 2011.

"Green Chemistry at Hartwick College" Erickson, M.S.; *Hartwick College Scholarship Admissions Event*, Oneonta, NY, March 19, 2011. **Two Sessions**

"The Greening of the Diels-Alder Reaction for the Undergraduate Organic Chemistry Laboratory" **Annabelle Chu Yan Fui** and Mark S. Erickson; *Hartwick College Scholar Showcase*, May 2010.

"Aqueous Diels-Alder Reactions as an Introduction to Green Chemistry" **Chu Yan Fui, A.** and Erickson, M.S.; *239th American Chemical Society National Meeting*, San Francisco, CA., March 23, 2010.

"Introduction of Green Chemistry in the Undergraduate Organic Laboratory Using the Diels-Alder Reaction." **Schultz, V.L.** and Erickson, M.S.; *238th American Chemical Society National Meeting*, Washington, D.C., August 17, 2009.

"Introduction of Green Chemistry in the Undergraduate Organic Laboratory Using the Diels-Alder Reaction." **Schultz, V.L.** and Erickson, M.S.; *Hartwick College Scholar Showcase*, April 2009.

"Synthesis of 2,5-dimethyl-3,4-divinylthiophene." **Czetty, B.C.** and Erickson, M.S.; *227th American Chemical Society National Meeting*, Anaheim, CA, March 28-April 1, 2004.

"Synthesis of Bithienyl Monomers." **Colson, B.C.** and Erickson, M.S.; *224th American Chemical Society National Meeting*, Boston, MA, August 20, 2002.

"Synthesis of Vinyl Thiophene Monomers as Precursors to Novel Polythiophenes." **Nassivera, T.** and Erickson, M.S.; *219th American Chemical Society National Meeting*, San Francisco, CA, March 26-30, 2000.

"Supercritical Carbon Dioxide as a Solvent for Friedel-Crafts Reactions." **Simard, J.M.** and Erickson, M.S.; *217th American Chemical Society National Meeting*, Anaheim, CA, March 21, 1999.

"Synthesis of pi-Conjugated Polymers." Erickson, M.S. *1998 Mississippi NSF-EPSCoR Conference*, Jackson, Mississippi, January 22, 1998.

"A Simple and Efficient Approach for a Synthesis of [3.1.0]-Bicyclohexyl and Heptyl Monomers." Yu, D. and Erickson, M.S. *1997 Mississippi EPSCoR Conference*, Jackson, Mississippi, January 29, 1997.

### **Paper and Poster Presentations (continued):**

"Potential Organometallic Precursors To Conducting Polymers." Erickson, M.S. *47th Southeast/51st Southwest Joint Regional Meeting of the American Chemical Society*, Memphis, Tennessee, November 30th, 1995.

"Synthesis of Benzonaphthochrysene: In Search of Potential Precursors to Fullerenes." Erickson, M.S.; Milliken, J.; George, C.F. *207th Meeting National American Chemical Society*, San Diego, California, March 16, 1994.

"Synthesis of Benzonaphthochrysene." Erickson, M.S. and Milliken, J. *184th Meeting of the Electrochemical Society*, New Orleans, Louisiana, October 12, 1993.

"Synthesis of 1,4-(1,1'-Ferrocenediyl)-1,3-Butadiene." Erickson, M.S. and McLaughlin, M.L., *204th Meeting of the American Chemical Society*, Washington, D.C., August 26, 1992.

"Unprecedented Syn Selectivity in the Synthesis of Bridged Titanocene Dichloride Derivatives." Erickson, M.S.; Fronczek, F.R.; McLaughlin, M.L., *197th Meeting of the American Chemical Society*, Dallas, Texas, April 14, 1989.

### **Publications:**

Erickson, M.S. Power Point Presentation to Accompany Tro *Chemistry in Focus*, 4<sup>th</sup> Edition, Brooks/Cole, **2012**.

Erickson, M.S.; Piefer, A. *Student Solutions Manual to Accompany Bettelheim, Brown, Campbell, and Farrell "Introduction to General, Organic, and Biochemistry"* 10<sup>th</sup> Edition, Brooks/Cole, **2012**.

Erickson, M.S.; Piefer, A. *Instructor's Manual to Accompany Bettelheim, Brown, Campbell, and Farrell "Introduction to General, Organic, and Biochemistry"* 10<sup>th</sup> Edition, Brooks/Cole, **2012**.

Erickson, M.S.; Farrell, S.O.; Farrell, C.A. *Student Solutions Manual to Accompany Bettelheim, Brown, Campbell, and Farrell "Introduction to General, Organic, and Biochemistry"* 9<sup>th</sup> Edition, Brooks/Cole, **2009**.

Erickson, M.S.; Farrell, S.O.; Farrell, C.A. *Instructor's Manual to Accompany Bettelheim, Brown, Campbell, and Farrell "Introduction to General, Organic, and Biochemistry"* 9<sup>th</sup> Edition, Brooks/Cole, **2009**.

Erickson, M.S.; Farrell, S.O.; Farrell, C.A. *Student Solutions Manual to Accompany Bettelheim, Brown, Campbell, and Farrell "Introduction to General, Organic, and Biochemistry"* 8<sup>th</sup> Edition, Brooks/Cole, **2007**.

Erickson, M.S.; Farrell, S.O.; Farrell, C.A. *Instructor's Manual to Accompany Bettelheim, Brown, Campbell, and Farrell "Introduction to General, Organic, and Biochemistry"* 8<sup>th</sup> Edition, Brooks/Cole, **2007**.

Erickson, M.S. *Student Solutions Manual for Brown and Poon's "Introduction to Organic Chemistry"*, 3<sup>rd</sup> Edition. John Wiley and Sons, Inc., **2005**.

Erickson, M.S.; Brown, W.H.; Boyer, R. *Student Solutions Manual to Accompany Bettelheim and Brown "Introduction to General, Organic, and Biochemistry"* 7<sup>th</sup> Edition, Brooks/Cole, **2003**.

Erickson, M.S.; Brown, W.H.; Boyer, R. *Instructor's Manual to Accompany Bettelheim and Brown "Introduction to General, Organic, and Biochemistry"* 7<sup>th</sup> Edition, Brooks/Cole, **2003**.

### **Publications (continued):**

“Novel Synthesis of Three C<sub>30</sub>H<sub>12</sub> Bowl-Shaped Polycyclic Aromatic Hydrocarbons.” Hagen, S.; Bratcher, M.S.; Erickson, M.S.; Zimmermann, G.; Scott, L.T. *Angewandte Chemie, International Edition, English* **1997**, *36*(4), 406-408.

“Synthesis of Benzonaphthochrysene: A Potential Fullerene Precursor.” Erickson, M.S. and Milliken, J. *Polycyclic Aromatic Compounds* **1996**, *8*, 1-7.

“Routes to Conjugated Polymers with Ferrocenes in their Backbones: Synthesis and Characterization of Poly(ferrocenylene divinylene) and Poly(ferrocenylene butenylene).” Stanton, C.E.; Lee, T.R.; Grubbs, R.H.; Lewis, N.S.; Pudelski, J.K.; Callstrom, M.R.; Erickson, M.S.; McLaughlin, M.L. *Macromolecules* **1995**, *28*, 8713-8721.

“Refinements of the Crystal Structures of 1,4-diphenylbutadiene and Its Complex with Two Moles of Co<sub>2</sub>(CO)<sub>6</sub>.” Fronczek, F.R. and Erickson, M.S. *J. of Chemical Crystallography* **1995**, *25*, 737-742.

“Structure of a Cyclotetradecadiene.” Erickson, M.S.; Schilling, P.J.; Fronczek, F.R.; Watkins, S.F. *Acta Cryst.* **1993**, *C49*, 165-167.

“Synthesis of 1,4-(1,1'-Ferrocenediyl)-1,3-butadiene: A Dieno-ferrocenophane.” Erickson, M.S.; Fronczek, F.R.; McLaughlin, M.L., *Tetrahedron Lett.* **1993**, *34*, 197-198.

“3-Benzoyl-1-Tosylpyrrole.” Erickson, M.S.; Fronczek, F.R.; McLaughlin, M.L. *Acta Cryst.* **1992**, *C48*, 202-203.

“Syntheses of Dipentafulvenes: Bichromophoric Effects Correlated with Structure.” Erickson, M.S.; Cronan, J.M., Jr.; Garcia, J.G.; McLaughlin, M.L. *J. Org. Chem.* **1992**, *57*, 2504-2508.

“Stereoselectivity in the Synthesis of Tetramethylethano-Bridged 3,3'-Di-tert-butyltitanocene Dichloride.” Erickson, M.S., Fronczek, F.R., McLaughlin, M.L. *J. Organomet. Chem.* **1991**, *415*, 75-85.

“S-Oxo-2-thia-[3]-ferrocenophane.” Erickson, M.S.; Yu, Y.; Fronczek, F.R.; McLaughlin, M.L. *Acta Cryst.* **1991**, *C47*, 2668-2669.

“The Syn Tetramethylethano-Bridged 3,3'-[Bis-(1,1-dimethylethyl)]titanocene Dichloride.” Erickson, M.S.; Fronczek, F.R.; McLaughlin, M.L. *Acta Crystallogr., Sec. C.* **1990**, *C46*, 1802-1804.

“A Tetramethylethano Bridged Dipentafulvene.” Erickson, M.S.; McLaughlin, M.L.; Fronczek, F.R. *Acta Cryst.* **1989**, *C45*, 1260-1261.

### **Grants, Awards, Funded Workshops, and Contracts Awarded:**

NSF Green Chemistry Workshop, University of Oregon, Eugene, OR; Attended 7/7-13, 2007.

NSF Forensic Chemistry Workshop, Williams College, North Adams, MA; Attended 6/18-23, 2006.

NSF NMR Workshop, University of Georgia, Athens, GA; Attended 6/9-13, 2003.

## **Grants, Awards, Funded Workshops, and Contracts Awarded (continued):**

### **Hartwick College Faculty Research Grants:**

"Synthesis of Electrically Conductive Polymers." Trustee Grant, \$2750, **2007**.

"Synthesis of Electrically Conductive Polymers." Milne Family Research Award, \$2900, **2003**.

"Synthesis of Electrically Conductive Polymers." Trustee Grant, \$2750, **2002**.

"Synthesis of Electrically Conductive Polymers." Milne Family Research Award, \$2900, **2001**.

"Synthesis of  $\pi$ -Conjugated Organic Polymers as Potential Conducting Polymers." \$3000, **1999**.

"A Green Chemistry Modification of the Diels-Alder Reaction for Application in the Undergraduate Organic Laboratory" Victor L. Schultz and Mark S. Erickson, *Freedman Research Award*, \$1700, **2008**.

"Design and Evaluation of Catalysts." Digital Chemical, \$1300, **2006**.

"Synthesis of Potential Bactericides for Biological Activity Evaluation Studies." MDI (contract), \$15,000, **6/98-9/98**.

"Synthesis and Characterization of Novel Electrically Conductive Materials Using Extended  $\pi$ -Networks." National Science Foundation, \$122,500, **1/97-6/98**.

"Synthesis of Novel Extended  $\pi$ -Systems based on Ferrocene." Faculty Research Award, U. of Mississippi, \$4000, **1994**.

### **Dissertation, Thesis, and Research Advisees:**

"2-Furfuryl Alcohol as a Diene for Green Diels-Alder Reactions" **Cheryl E. Sturm**, B.A. Thesis, 5/11.\* **(H)**

"The Greening of the Diels-Alder Reaction for the Undergraduate Organic Chemistry Laboratory" **Annabelle Chu Yan Fui**, B.A. Thesis, 5/10.\* **(H)**

"The Attempted Synthesis of Pleiadiene" **Nicholas Nadeau**, B.A. Thesis, 5/10.\* **(H)**

"Synthesis and Polymerization of Pleiadiene" **John Gaehring**, B.S., Thesis, 5/09.\*

"A Green Chemistry Modification of the Diels-Alder Reaction for Application in the Undergraduate Organic Laboratory" **Victor L. Schultz**, Funded Summer Research, 6/08-8/08, B.S. Thesis, 5/09.\*

"Arylation of Amine and Its Derivatives Using Novel Palladium Catalyst System" **Hai Le**, B.S. Thesis, 5/07.\*

"Evaluation and Quantitative Analysis of Palladium Coupling Reactions" **Brian Lovejoy**, B.A. Thesis, 5/07.\*

"Oral Chelation Therapy: Using EDTA and Alternative Treatments for Acute Plumbism in Rats", **Diana Sardelis**, B.S. Thesis, 5/07.\*

"Synthesis of Thiophene Monomers for ADMET Polymerization with a Conjugated  $\pi$ -backbone" **Victor L. Schultz**, Funded Summer Research, 6/06-8/06.\*

"Synthesis of Thiophene and Furan Monomers for ADMET Polymerization with a Conjugated  $\pi$ -backbone" **Brian C. Czetty**, Funded Summer Research, 5/02-8/03; B.S. Thesis, 5/04.\*

**Dissertation, Thesis, and Research Advisees (continued):**

"Synthesis of Vinyl Aromatic Heterocyclic Monomers as Potential Precursors to Electrically Conductive Polymers" **Danielle M. Moura**, B.A. Thesis, 5/03.\*

"Synthesis of Vinyl Thiophene Monomer as a Potential Precursor to an Electrically Conductive Polymer" **Benjamin C. Colson**, Funded Summer Research, 5/01-8/01; B.S. Thesis, 5/02.\*

"Synthesis of Precursors to Conducting Polymers" **Trevor Roepnack**, B.S. Thesis, 5/01.\*

"Synthesis of 2-bromo-5-(1-hydroxyethyl)thiophene" **Christopher Belnap**, Sophomore Honors Thesis, 3/01-5/01.\*

"Molecular Modeling of 4-Phenylene" **Vladislav Natchev**, Freshman Honors Thesis, 9/00-12/00.\*

"Synthesis of Vinyl Thiophenes as Precursors to Novel Polythiophenes" **Terry Nassiveri**, Funded Summer Research, 5/99-8/99; B.S. Thesis, 5/00.\*

"Huckel Molecular Orbital Calculations of the Indenyl Ligand on Iron (II) and Ruthenium (II) Metal Complexes" **Mendy Miller**, Junior Thesis, 9/99-5/00.\*

"Friedel-Crafts Alkylations and Acylations in Supercritical Carbon Dioxide" **Joseph Simard**, B.S. Thesis, 5/99.\*

"Synthesis of Thiazoline Retinoids for Use as an Anti-Cancer Agent" **Brian Hill**, B.S. Thesis, 5/99.\*

"Part 1. A simple and Efficient New Approach for a Novel Synthesis of Bicyclo[3.2.0]Heptyl System Monomers. Part 2. A Diels-Alder Approach to Donor-Sigma-Acceptor Compounds Using Ferrocene Donors and Benzoquinone Acceptors" DuYi Yu, Ph.D. Dissertation 7/98.\*\*

"Synthesis of Novel Thiophene Monomers" Polly Brinkley, Funded Summer Research, 5/97-8/97.\*\*

"Synthesis of Novel Conducting Polymers" Billy R. Booth, *Ronald McNair Academic Fellowship Program*, 6/98.\*\*

"Multistep Synthesis of Antimicrobial Agents" Mary Davidson, B.S. Thesis, 8/98.\*\*

"Synthesis of Novel Thiophene Monomers" Jacob Efftink, B.S., Thesis, 5/97.\*\*

"Synthesis of Thiophene-Containing Compounds as Monomer Precursors to Conducting Polymers" Xiaoyun Zhang, M.S. Thesis, 8/97.\*\*

"Preparation of (Acenaphthylene)chromium Tricarbonyl and the Preparation of Acetylferrocene, Vinylferrocene, and Related Alcohols" Dana Holmes, B.S. Thesis, 12/95.\*\*

*Thesis/Dissertation Research activities performed at \*Hartwick College and \*\*University of Mississippi. Bold print indicates Hartwick College student*

**Invited as External Reviewer:**

*General-Organic-Biochemistry* by Stoker: accuracy reviewer, **2011**.

*General-Organic-Biochemistry* by Armstrong: accuracy reviewer, **2010**.

*Organic Chemistry* by Hart: accuracy reviewer and revision author for test bank, **2010**.

*General-Organic-Biochemistry* by Seager, **2010**.

American Chemical Society Petroleum Research Fund Grant, **2010**.

*Introductory Chemistry* by Tro: accuracy reviewer, **2008**.

*Survival Guide for Introductory Chemistry* by Atwood: accuracy reviewer, **2008**.

*Survival Guide for General-Organic-Biochemistry* by Atwood: accuracy reviewer, **2007**.

*Organic Letters*, journal manuscript: reviewer, **2005**.

*Fundamentals of Organic Chemistry* by McMurry: accuracy reviewer for textbook, **2006**.

National Science Foundation Grant Proposal, reviewer, **2003**.

*General-Organic-Biochemistry 7<sup>th</sup> Edition* by Bettelheim and Brown: accuracy reviewer for textbook, **2002**.

*Journal of Organic Chemistry*, journal manuscript: reviewer, **2002**.