LAURA E. PARMENTIER

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Evansville, WI 53536
(608) 882-6798

Education:

Ph.D., Organic Chemistry — Dec, 1990
University of Wisconsin-Madison
Thesis Advisors: Professors Marion H. O'Leary and W. W. Cleland
Thesis Title: Mechanistic Studies on Aspartate Transcarbamylase Using Heavy Atom Isotope Effects

Bachelor of Science (*Summa cum Laude*) — May, 1984
Chemistry and Biology
Northland College, Ashland, WI

Professional Positions:

Professor of Chemistry — Aug 2009-present
Beloit College, Beloit, WI

Chair, Health and Society Program — Aug 2013-present
Beloit College, Beloit, WI

Chair, Department of Chemistry — Aug 2006-2011
Beloit College, Beloit, WI

Chair, Biochemistry Program — Aug 2008-2012
Beloit College, Beloit, WI

Visiting Scientist — Jan – May 2006
Faculty of Engineering and Science
Sogn og Fjordane University College
Sogndal, Norway

Visiting Lecturer — Sept – Dec 2000, 2005
Department of Chemistry, Glasgow University
Glasgow, Scotland

Associate Professor of Chemistry — Aug 2003-2009
Beloit College, Beloit, WI

Martha Peterson Associate Professor of Chemistry — Aug 1997-2003
Beloit College, Beloit, WI

Assistant Professor of Chemistry and Martha Peterson Junior Professor in the Sciences — Aug 1993-Aug 1997
Beloit College, Beloit, WI

Visiting Assistant Professor of Chemistry — Aug 1991- Aug 1993
Beloit College, Beloit, WI

Postdoctoral Research Associate — Dec, 1990-Aug 1991
University of Wisconsin-Madison
Institute for Enzyme Research
(Professor W. W. Cleland)

Research Assistant June 1987-Dec 1990
University of Wisconsin-Madison
Department of Chemistry
(Professors Marion H. O'Leary and W. W. Cleland)

Teaching Assistant - General and Organic Chemistry June 1986-May 1987
University of Wisconsin-Madison

Research Assistant Sept 1985-May 1986
University of Wisconsin-Madison
Department of Physiological Chemistry

Instructor of Chemistry Aug 1984-Aug 1985
Northland College, Ashland, WI

Current Research Interests: **Chemical Education**

Publications:

"Enhancement of the Organic Chemistry Laboratory Curriculum Using Temperature-Programmable, Computer-Controlled Capillary Gas Chromatography," Parmentier, L. E., in preparation.

"A Guided Inquiry Approach to NMR Spectroscopy," Parmentier, L. E., Lisensky, G. C., & Spencer, B., *J. Chem. Educ.* **1998**, *75*, 470-1.

Discovering Chemistry, Lamba, R., Monzon, J., Bodner, G., Lisensky, G., Spencer, B. & Parmentier, L., John Wiley & Sons, Inc., 1997.

"Introductory Chemistry at Beloit College," Lisensky, G., Parmentier, L., & Spencer, B. *What Works - Leadership: Challenges for the Future*, Project Kaleidoscope, 1994.

"Radon Testing," Gabler, C., Parmentier, L. E., & Lisensky, G. C. in *Teaching General Chemistry - A Materials Science Companion*, Ellis, A. B., Geselbracht, M. J., Johnson, B. J., Lisensky, G. C. & Robinson, W. R., American Chemical Society, 1993.

Presentations:

"Isolation and Characterization of Essential Oils," L. E. Parmentier, invited workshop leader, 65th Annual Meeting of the Midwestern Association of Chemistry Teachers in Liberal Arts Colleges, Monmouth College, Monmouth, IL, October 2017.

"Analysis of Essential Oils Using GC-MS and NMR," S. Hounsve, B. E. Sturgeon, L. E. Parmentier, M. Simes, & S. Miliotis, 65th Annual Meeting of the Midwestern Association of Chemistry Teachers in Liberal Arts Colleges, Monmouth College, Monmouth, IL, October 2017.

"Cool Lights! Brilliant Ideas," Laura E. Parmentier and George C. Lisensky, Evansville Energy Fair, Evansville, WI, April 2007.

"Cool Lights! Brilliant Ideas," Laura E. Parmentier and George C. Lisensky, Evansville Energy Fair, Evansville, WI, April 2005.

"Learning Biology and Chemistry at Beloit College," L. Parmentier & K. Yasukawa. Invited presentation for Fall Conference, Beloit College, Beloit, WI, August 2004.

"Capillary Gas Chromatographic Determination of the Fatty Acid Composition of a Series of Oils Before and After Hydrogenation," J. J. Horger & L. E. Parmentier. 228th American Chemical Society National Meeting, Philadelphia, PA, August 2004.

"Capillary Gas Chromatographic Determination of the Fatty Acid Composition of a Series of Oils Before and After Hydrogenation," J. J. Horger & L. E. Parmentier. 2003 Pew Midstates Undergraduate Symposium in the Physical Sciences, University of Chicago, November 2003.

"Capillary Gas Chromatographic Determination of the Fatty Acid Composition of a Series of Oils Before and After Hydrogenation," J. J. Horger & L. E. Parmentier. 14tth Annual Argonne Symposium for Undergraduates in Science, Engineering, and Mathematics, Chicago, IL, October 2003.

"Active Learning Across the Chemistry Curriculum," L. Parmentier. University of Wisconsin System Women and Science Spring Retreat, Celebrate What Works, Wisconsin Dells, WI, May 2003.

"Active Learning in Introductory and Intermediate Biology and Chemistry Courses," L. Parmentier & K. Yasukawa. Invited presentation at Pew Midstates Science & Mathematics Consortium Attracting and Retaining Majors, Chicago, IL, March 2003.

"Guided Inquiry Labs," L. Parmentier & J. Lewis. Women and Science Curriculum Reform Institute, Oshkosh, WI, June 2001.

"Making the Link: Implementing Your Project at Your Institution," L. Parmentier & J. Lewis. Women and Science Curriculum Reform Institute, Oshkosh, WI, June 1999.

"Making Fats Fit Your Situation: Teaching With Modules at Beloit College," J. Lewis, H. Mernitz, L. Parmentier, B. Spencer. Spring 1999 National Meeting of the American Chemical Society, Anaheim, CA, March 1999.

"General Chemistry That Is An Experiment," G. C. Lisensky, L. E. Parmentier, J. B. Spencer. Innovations in Chemistry Education Gordon Research Conference, Oxnard, CA, January 1994.

"General Chemistry That Is An Experiment," G. C. Lisensky, L. E. Parmentier, J. B. Spencer. 26th Great Lakes Regional Meeting of the American Chemical Society, Marquette, MI, May 1993.

"General Chemistry Revised," G. Lisensky, L. Parmentier, B. Spencer. 25th Great Lakes Regional Meeting of the American Chemical Society, Milwaukee, WI, June, 1992.

"General Chemistry That Is An Experiment," G. Lisensky, L. Parmentier, B. Spencer. 203rd National Meeting of the American Chemical Society, San Francisco, CA, April 1992.

Women and Science

Publications:

"Teaching Women's Health in a Transdisciplinary Context," S. M. Cox & L. E. Parmentier, in preparation

Presentations:

"Combining an Academic Career and Motherhood on a Liberal Arts College Campus: Ensuring Models of Success," S. M. Cox & L. E. Parmentier, Association for Research on Mothering Symposium, The Maternal Wall: Academic Mothers and Strategies of Resistance and Empowerment, Brandeis University, Boston, MA, February 2009.

Graduate Women in Science Career Panelist. Invited presentation for the Graduate Women in Science Program, University of Wisconsin, Madison, February 2005.

"Feminist Pedagogies in the Sciences," L. Parmentier. 27th Annual University of Wisconsin-System Women's Studies Conference, New Era? New Challenges?, Madison, WI, November 2002.

"Explorations in Feminist Pedagogy," L. Parmentier & J. Lewis. Invited presentation and workshop at the Annual Meeting of the American Society for Engineering Education, Montreal, Canada, June 2002.

"Getting (Un)Comfortable in the Laboratory," L. Parmentier & J. Lewis. 26th Annual University of Wisconsin-System Women's Studies Conference, Interconnections in Women's Studies: Teaching and Learning, Waukesha, WI, November 2001.

"Women and Science Program" invited panelist, K. Greene, C. Orr, L. Parmentier. 26th Annual University of Wisconsin-System Women's Studies Conference, Interconnections in Women's Studies: Teaching and Learning, Waukesha, WI, November 2001.

"Getting (Un)Comfortable in the Laboratory," L. Parmentier & J. Lewis. Women and Science Curriculum Reform Institute, Oshkosh, WI, June 2001.

"Making the Link: Implementing Your Project at Your Institution," L. Parmentier & J. Lewis. Women and Science Curriculum Reform Institute, Oshkosh, WI, June 2000.

"Constructing Science," L. Parmentier & J. Lewis. Women and Science Curriculum Reform Institute, Oshkosh, WI, June 2000.

"Women, Health, and Healing: An Interdisciplinary, Laboratory-Based Course in Women's Health," S. Cox, J. Lewis, & L. Parmentier. University of Wisconsin System Women and Science Spring Retreat, Wisconsin Dells, WI, May 2000.

"Career and Family Balance in Academia," L. E. Parmentier, K. M. White, & K. J. Zimmermann. Invited presentation, the 218th National Meeting of the American Chemical Society, New Orleans, LA, August 1999.

"Something to Talk About: Scientific Women Combining Career and Family," L. E. Parmentier, K. M. White, & K. J. Zimmermann. Beloit College Faculty Forum, Beloit, WI, April 1999.

"Something to Talk About: Scientific Women Combining Career and Family," L. E. Parmentier, K. M. White, & K. J. Zimmermann. Invited presentation, Whitman College, Walla Walla, WA, September 1996.

"Something to Talk About: Scientific Women Combining Career and Family," L. E. Parmentier, K. M. White. The 1996 Annual Meeting of the Midwest Sociological Society, Chicago, IL, April 1996.

"Something to Talk About: Scientific Women Combining Career and Family," L. E. Parmentier, K. M. White. The 211th National Meeting of the American Chemical Society, New Orleans, LA, March 1996.

International and Environmental Education

Presentations:

"Glacier and Climate Change in Western Norway," L. Parmentier, Beloit College Faculty Forum, Beloit College, Beloit, WI, January 2008.

"Eating Ancient Mud in the Name of Science – A Study of Glacier and Climate Change in Western Norway," L. Parmentier, invited keynote presentation, Girls and Women in Science Conference, Beloit College, Beloit, WI, March 2007.

"Can We Learn About Glacier and Climate Changes by Studying Lake Sediments?" L. Parmentier, Wisconsin Council for Academically Talented Youth, Beloit College, Beloit, WI, November 2006.

"Exploring International Connections: Sogn og Fjordane University College and Beloit College," L. Parmentier, Sogn og Fjordane University College, Sogndal, Norway, February 2006.

Mechanistic Enzymology

Publications:

"Studies on the Urea Cycle Enzyme Ornithine Transcarbamylase Using Heavy Atom Isotope Effects," Parmentier, L. E., & Kristensen, J. S. (1998) *Biochimica et Biophysica Acta 1382* 333.

"^{13}C Isotope Effects as a Probe of the Kinetic Mechanism and Allosteric Properties of *E. coli* Aspartate Transcarbamylase," Parmentier, L. E., O'Leary, M. H., Schachman, H. K. & Cleland, W. W. (1992) *Biochemistry 31* 6570.

"^{13}C and ^{15}N Isotope Effects as a Probe of the Chemical Mechanism of *E. coli* Aspartate Transcarbamylase," Parmentier, L. E., Weiss, P. M., O'Leary, M. H. , Schachman, H. K. & Cleland, W. W. (1992) *Biochemistry 31* 6577.

"^{13}C Isotope Effects Studies of *E. coli* Aspartate Transcarbamylase in the Presence of the Bisubstrate Analog N-Phosphonacetyl-L-Aspartate," Parmentier, L. E., O'Leary, M. H., Schachman, H. K. & Cleland, W. W. (1992) *Biochemistry 31* 6598.

"Steady-State Kinetics and Isotope Effects on the Mutant Catalytic Trimer of Aspartate Transcarbamoylase Containing the Replacement of Histidine 134 by Alanine," Waldrop, G. L., Turnbull, J. L., Parmentier, L. E., O'Leary, M. H., Cleland, W. W. & Schachman, H. K. (1992) *Biochemistry 31* 6585.

"The Contribution of Threonine 55 to Catalysis in Aspartate Transcarbamoylase," Waldrop, G. L., Turnbull, J. L., Parmentier, L. E., Lee, S. Y., O'Leary, M. H., Cleland, W. W. & Schachman, H. K. (1992) *Biochemistry 31* 6592.

Presentations:

"Studies of the Urea Cycle Enzyme Ornithine Transcarbamylase: Purification and ^{13}C Isotope Effects to Determine Kinetic Mechanism," L. E. Parmentier, J. R. Smith, & W. W. Cleland. Pew Biological Sciences Symposium, Chicago, IL, October 1992.

"^{13}C Isotope Effects Studies of *E. coli* Aspartate Transcarbamylase in the Presence of the Bisubstrate Analog N-Phosphonacetyl-L-Aspartate," L. E. Parmentier, M. H. O'Leary, H. K. Schachman & W. W. Cleland. Isotopes in the Physical and Life Sciences Gordon Research Conference, Ventura, CA, March 1992.

"Studies on the Catalytic Mechanism of Aspartate Transcarbamylase Using Heavy Atom Isotope Effects." L. E. Parmentier, G. L. Waldrop, H. K. Schachman, W. W. Cleland & M. H. O'Leary. 12th Enzyme Mechanisms Conference, San Diego, CA, January 1991.

"Mechanistic Studies on Aspartate Transcarbamylase Using Heavy Atom Isotope Effects." L. E. Parmentier, P. M. Weiss, W. W. Cleland & M. H. O'Leary. Isotopes in the Physical and Life Sciences Gordon Research Conference, Oxnard, CA, January 1990.

"Isotope Effects as a Probe of the Kinetic and Chemical Mechanisms of Aspartate Transcarbamylase." L. E. Parmentier, P. M. Weiss, W. W. Cleland & M. H. O'Leary. 32nd West Central States Biochemistry Conference, Lincoln, NE, October 1989.

*Underscore denotes Beloit College student co-author.

Participation in Working Meetings:

255th National Meeting of the American Chemical Society, New Orleans, LA, March 2018.
Midwestern Association of Chemistry Teachers in Liberal Arts Colleges, MonmouthCollege, Monmouth, IL, October 2017.
NSF Chemistry Collaborations, Workshops, and Communities of Scholars Medicinal Plants Workshop, Tuskegee University, Tuskegee, AL, August 2016.
NSF Chemistry Collaborations, Workshops, and Communities of Scholars Food Chemistry Workshop, Clarke University, Dubuque, IA, July 2015.
Annual Midwest Process-Oriented Guided Inquiry (POGIL) Summit, Bethel University, St. Paul, MN, April 2015.
NSF Chemistry Collaborations, Workshops, and Communities of Scholars Medicinal Chemistry Workshop, University of Minnesota, Minneapolis, MN, July 2014.
Pre-Med/Pre-Health Advisor Conference, University of Wisconsin, Madison, WI, May 2014.
Pre-Med/Pre-Health Advisor Conference, Marquette University, Milwaukee, WI, May 2012.
ACM FaCE Workshop, "High Stakes Performance by Liberal Arts College Students: Understanding and Coping with Anxiety," Macalester College, St. Paul, MN, November 2011.
Midwestern Association of Chemistry Teachers in Liberal Arts Colleges conference host and session leader, "Energy" Beloit College, http://chemistry.beloit.edu/MACTLAC/index.html, October, 2011.
POGIL Facilitator Training Workshop invited participant, Myrtle Beach, SC, January 2011.
POGIL Great Lakes Meeting, Platteville, WI, June 2010.
Global Health and the Liberal Arts Curriculum, Weissberg Chair for International Studies, Beloit College, March 2010.
Midwestern Association of Chemistry Teachers in Liberal Arts Colleges session leader, "Molecular Visualizations: Do Our Students See What We See?" Dubuque University, Dubuque, IA, October, 2008.
Exploring the Scholarship of Teaching and Learning, Beloit College, November, 2007.
Midwestern Association of Chemistry Teachers in Liberal Arts Colleges session leader and recorder, "Chemistry at the Interface with Biology: Biochemistry and Beyond," Viterbo University, La Crosse, WI, October 2007.
New Directions in International Education Conference, Beloit College, October 2004.
Midwestern Association of Chemistry Teachers in Liberal Arts Colleges, Clarke College, Dubuque, IA, October 2004.
Women's Studies Faculty Development Seminar, Beloit College, fall 2001.
Women and Science Program Curriculum Reform Institute, Oshkosh, WI, June 2001.
Molecular Modeling in Undergraduate Chemistry Education, Whitewater, WI, May 2001.
ChemLinks Coalition Annual Meeting, St. Paul, MN, April 2001.
Women and Science Program Curriculum Reform Institute, Oshkosh, WI, June 2000.
ChemConnections Organic Chemistry Author's Meeting, Beloit College, June 2000.
Interdisciplinary Studies Workshop, Beloit College, June 1999.
Women and Science Program Curriculum Reform Institute, Oshkosh, WI, June 1999.
ChemLinks and Modular Chem Consortia Annual Meeting, Berkeley, CA, March 1999.
Pew Faculty Development Short-Term Consultation, ChemLinks Module Development, Colorado College, March 1998.
ChemLinks Molecular Basis of Life Group Meeting, Hope College, September 1997.
ChemLinks and Modular Chem Consortia Annual Meeting, Berkeley, CA, April 1997.
Midwest Association for Chemistry Teachers at Liberal Arts Colleges, Grinnell College, October 1992.

Research Funding:

External

ACM Faculty Career Enhancement Project, Enhancing Scholarship Grant, $3000 awarded for living expenses in conjunction with sabbatical research, "Glacier and Climate Change in Western Norway," Jan 2006.

National Science Foundation, Department of Undergraduate Education (CCLI-A&I), "Enhancement of the Organic Chemistry Laboratory Curriculum Using Temperature-Programmable, Computer-Controlled, and Network-Accessible Gas Chromatographs" (DUE 0126580), 2002 ($38,314, matched by Beloit College for a total of $76,943).

Internal (travel awards are not listed)

Sustainability Citizen Course Grant – "Food Activism at Beloit College," $1000 for activism projects in FYI, fall 2015.

PPDC Scholarly Development Grant - $1000 to purchase water quality test equipment for field research in Scotland and Norway, 2005.

Beloit College Professional Development Grant, "Mechanistic Studies on Ornithine Transcarbamylase Using Heavy Atom Isotope Effects," 1998 ($2,200).

Beloit College Keefer Fellowship, "Academic Women Combining Science Careers and Motherhood," 1996 ($2,700).

Beloit College Chemistry Department DuPont Summer Research Grant, "Mechanistic Studies on Ornithine Transcarbamylase," 1992 ($3,600).

Beloit College Faculty Development Research Grant, "Mechanistic Studies on Ornithine Transcarbamylase," 1992 ($2,500).

Beloit College Faculty Development Research Grant, "Mechanistic Studies on Ornithine Transcarbamylase," 1991 ($1,500).

Professional Service:

Journal of Chemical Education, reviewer of papers (1-3 per year).
Text review, *The 7 Domains of Health: Multidisciplinary Considerations of Women's Health in the 21st Century*, Routledge, 2016.
Text review, *Fundamentals of Organic Chemistry With a Biological Emphasis,* by T. Soderberg, Roberts and Company Publishers, 2013.
Text review, *Organic Chemistry*, by M. Loudon, Roberts and Company Publishers, 2012.
Principal External Evaluator, University of Toronto Department of Chemistry, February, 2008.
Text review, *The Organic Chemistry of Drug Design and Drug Action*, by R. Silverman, Elsevier Academic Press, October, 2007.
Biochemistry, reviewer of papers.
Petroleum Research Fund, reviewer of proposals.
National Science Foundation, reviewer of proposals.
Houghton Mifflin Publishing Company, manuscript review and accuracy check, *Guided Inquiry Organic Chemistry* by Andrei Straumanis, 2002.

Professional Societies:

American Chemical Society, Division of Chemical Education
Midwestern Association of Chemistry Teachers in Liberal Arts Colleges

Consulting:

Member of the Project Kaleidoscope Consulting Bureau. Advised faculty and administrators at Florida Community College at Jacksonville on redesigning introductory chemistry and physics facilities and curricula, March 1995. Served as advisor in the preparation of an NSF-ILI proposal to develop an interdisciplinary physical science course at FCCJ, fall, 1995 and fall, 1996.

References:

Available upon request