

John C. Hershberger

Department of Chemistry and Physics
Arkansas State University
P.O. Box 419
State University, AR 72467

Tel: (870)-972-3313
Fax: (870)-972-3089
jhershberger@astate.edu

Professional

Assistant Professor of Chemistry Arkansas State University, Jonesboro, AR	2013 - Present
Visiting Assistant Professor of Chemistry Hamilton College, Clinton, NY	2012 - 2013

Education and Training

Research Associate University of Wisconsin, Madison, WI Advisor: Professor Jennifer M. Schomaker	2010 - 2012
Postdoctoral Fellow University of Michigan, Ann Arbor, MI Advisor: Professor John P. Wolfe	2009 - 2010
Ph.D., Chemistry University of Kansas, Lawrence, KS Advisor: Professor Helena C. Malinakova	2004 - 2009
B.S., Chemistry, Summa Cum Laude Missouri University of Science and Technology, Rolla, MO Advisor: Professor Harvest L. Collier	2000 - 2003

Additional Professional Experience

University of Wisconsin Faculty Assistant: Organic Chemistry	2011 - 2012
University of Kansas NSF-REU Participant: Synthetic Organic Chemistry Advisor: Jeffrey Aubé	2002

Awards, Honors, and Affiliations

McCullum Research Scholarship, University of Kansas	2007
Emily V. Berger Chemistry Scholarship, University of Kansas	2004 - 2005
Chancellor's Scholarship, Missouri University of Science and Technology	2000 - 2003
Phi Kappa Phi, Missouri University of Science and Technology	2003 - 2004

Publications

Rigoli, J. W.; Boralsky, L. A.; Hershberger, J. C.; Marston, D.; Meis, A. R.; Guzei, I. A.; Schomaker, J. M. "1,4-Diazaspiro[2.2]pentanes as a Flexible Platform for the Synthesis of Diamine-bearing Stereotriads" *J. Org. Chem.* **2012**, *77*, 2446 – 2455.

Boralsky, L. A.; Marston, D.; Grigg, R. D.; Hershberger, J. C.; Schomaker, J.M. "Allene Functionalization via Bicyclic Methylene Aziridines" *Org. Lett.* **2011**, *13*, 1924 – 1927.

Hershberger, J. C.; Day, V. W.; Malinakova, H. C. "Diastereoiduction in the Synthesis of Pallada(II)pyrrolidinones: Palladacycles with Two Pd-bonded Stereogenic Carbons" *Organometallics* **2009**, *28*, 810 – 818.

Zhang, L.; Lushington, G. H.; Neuenswander, B.; Hershberger, J. C.; Malinakova, H. C. "Solution-Phase Parallel Synthesis of Hexahydro-1*H*-isoindolone Libraries via Tactical Combination of Cu-Catalyzed Three-Component Coupling and Diels–Alder Reactions" *J. Comb. Chem.* **2008**, *10*, 285 – 302.

Hershberger, J. C.; Zhang, L.; Lu, G.; Malinakova, H. C. "Polymer-Supported Palladacycles: Efficient Reagents for Synthesis of Benzopyrans with Palladium Recovery. Relationship among Resin Loading, Pd:P Ratio, and Reactivity of Immobilized Palladacycles" *J. Org. Chem.* **2006**, *71*, 231 – 235.

Zeng, Y.; Smith, B. T.; Hershberger, J.; Aubé, J. "Rearrangements of Bicyclic Nitrones to Lactams: Comparison of Photochemical and Modified Barton Conditions" *J. Org. Chem.* **2003**, *68*, 8065 – 8067.

Patent

Schomaker, J.M.; Boralsky, L.A.; Rigoli, J.W.; Hershberger, J.C. "Efficient Processes to Prepare Asymmetric, Heteroatom-Bearing Stereotriads via Allene Oxidation." Provisional Patent Application, filed June 2011 through the Wisconsin Alumni Research Foundation.

Book Chapter

Watson, B. T.; Lebel, H.; Malinakova, H. C.; Hershberger, J. C. "Potassium Hexamethyldisilazide" *e-EROS Encyclopedia of Reagents for Organic Synthesis*

Oral Presentations at Regional ACS Meetings

Hershberger, J. C.; Neuenswander, B.; Shiota, A.; Malinakova, H. C. "Application of Polymer-Bound Palladacycles as Reagents for the Synthesis of a Combinatorial Library of 1,2-Dihydroquinolines" 43rd Midwest Regional Meeting of the American Chemical Society, Kansas City, MO, October 2008.

Poster Presentations at National and Regional ACS Meetings

Hershberger, J. C.; Day, V. W.; Malinakova, H. C. "Reactivity of Palladapyrrolidinones: Unique Palladacycles Featuring Two sp³C-Pd Bonds" 42nd Midwest Regional Meeting of the American Chemical Society, Kansas City, MO, November 2007.

Hershberger, J. C.; Day, V. W.; Malinakova, H. C. "Synthesis and reactivity of palladapyrrolidinones: Rare endocyclic Palladium Amide Enolates Bearing Two Csp³-Pd bonds" 234th ACS National Meeting, Boston, MA, August 2007.

Hershberger, J. C.; Zhang, L.; Lu, G. Malinakova, H. C. "Application of Polymer-bound Palladacycles as Reagents for the Synthesis of Combinatorial Libraries of 2*H*-1-benzopyrans and 1,2-Dihydroquinolines" 231st ACS National Meeting, Atlanta, GA, March 2006.

Hershberger, J. C.; Zhang, L.; Lu, G.; Shiota, A.; Malinakova, H. C. "Application of Polymer-Bound Palladacycles in Synthesis of Heterocycles with Palladium Recovery. Relationship between Resin Loading, Pd : P Ratio and Reactivity of

Immobilized Pd-Complexes” 40th Midwest Regional Meeting of the American Chemical Society, Joplin, MO, October, 2005.

Lu, G.; Hershberger, J. C.; Malinakova, H. C. “Synthesis of 2,2,3,4-Tetrasubstituted 2*H*-1-Benzopyrans via a Palladium-mediated Annulation of Unsymmetrical Alkynes” 39th Midwest Regional Meeting of the American Chemical Society, Manhattan, KS, October, 2004.

Hershberger, J.; Zeng, Y.; Smith, B.; Aubé, J. “Synthetic Approaches to Fused Bicyclic Lactams via Nitrene Intermediates” 37th Midwest Regional Meeting of the American Chemical Society, Lawrence, KS, November, 2002.

Poster Presentations Given at Other Research Conferences

Hershberger, J. C.; Boralsky, L. A.; Rigoli, J. W.; Adams, C. S.; Weatherly, C. D.; Schomaker, J. M. “New Methods for Stereocontrolled Allene Oxidation” National Organic Symposium, June 2011.

Boralsky, L. A.; Marston, D.; Grigg, R. D.; Hershberger, J. C.; Schomaker, J.M. “Allene Functionalization via Bicyclic Methylene Aziridines and 1,4-Diazaspiro[2,2]pentanes” Chicago Organic Symposium, February 2011.

Hershberger, J. C. “Reactivity of Palladapyrrolidinones: Unique Palladacycles Generating Unique Mechanistic Insight” Gordon Research Conference on Organometallic Chemistry, Salve Regina University, Newport, RI, July 2008.

Professional Service

Reviewer, Journal Article, *Journal of Combinatorial Chemistry*, 2010.

Teaching

Summer 2013

Organic Chemistry II
Organic Chemistry II Lab