John C. Hershberger

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Professional

Assistant Professor of Chemistry — 2013 - Present
Arkansas State University, Jonesboro, AR

Visiting Assistant Professor of Chemistry — 2012 - 2013
Hamilton College, Clinton, NY

Education and Training

Research Associate — 2010 - 2012
University of Wisconsin, Madison, WI
Advisor: Professor Jennifer M. Schomaker

Postdoctoral Fellow
University of Michigan, Ann Arbor, MI — 2009 - 2010
Advisor: Professor John P. Wolfe

Ph.D., Chemistry
University of Kansas, Lawrence, KS — 2004 - 2009
Advisor: Professor Helena C. Malinakova

B.S., Chemistry, Summa Cum Laude
Missouri University of Science and Technology, Rolla, MO — 2000 - 2003
Advisor: Professor Harvest L. Collier

Additional Professional Experience

University of Wisconsin — 2011 - 2012
Faculty Assistant: Organic Chemistry

University of Kansas
NSF-REU Participant: Synthetic Organic Chemistry — 2002
Advisor: Jeffrey Aubé

Awards, Honors, and Affiliations

McCollum 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. "Diastereoinduction 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 sp^{3}C-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 Csp^3-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 Nitrone 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