

Steven Mark Banik, Ph.D.

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EDUCATION

Harvard University | Cambridge, MA
Ph.D., Chemistry & Chemical Biology (March 2017)

University of Wisconsin-Madison | Madison, WI
B. S. with Honors in Chemistry (May 2011)

RESEARCH EXPERIENCE

Stanford University, NIH and Burroughs Wellcome Fund CASI Postdoctoral Fellow

Professor Carolyn R. Bertozzi

Stanford, CA
2017–Present

Harvard University, NSF Research Fellow

Professor Eric N. Jacobsen

Cambridge, MA
2011–2016

University of Wisconsin-Madison

Professor Mahesh K. Mahanthappa

Madison, WI
2008–2011

Stanford University, NSF-REU Fellow

Professor Robert M. Waymouth

Stanford, CA
2010

Columbia University, NSF-REU Fellow

Professor Nicholas J. Turro

New York, NY
2009

PUBLICATIONS

13. [Banik, S.M.](#); Pedram, K.; Wisnovsky, S.; Riley, N.M.; Bertozzi, C.R. “Lysosome Targeting Chimeras for the Degradation of Secreted and Membrane Proteins”. **2019**, *In revision*. *ChemRxiv preprint*.

12. Haj, M.K.; [Banik, S.M.](#); Jacobsen, E.N. “Catalytic, Enantioselective 1,2-Difluorination of Cinnamamides.” *Org. Lett.* **2019**, *21*, 4919–5372.

11. Mennie, K.M.; [Banik, S.M.](#); Reichert, E. C.; Jacobsen, E.N. “Catalytic Diastereo- and Enantioselective Fluoroamination of Alkenes.” *J. Am. Chem. Soc.* **2018**, *140*, 4797–4802.

10. [Banik, S.M.*](#); Levina, A.*; Hyde, A.M.; Jacobsen, E.N. “Lewis acid enhancement by hydrogen-bond donors for asymmetric catalysis.” *Science* **2017**, *358*, 761–764.

*These authors contributed equally

9. [Banik, S.M.*](#); Mennie, K.M.*; Jacobsen, E.N. “Catalytic 1,3 Difunctionalization via Oxidative C–C Bond Activation.” *J. Am. Chem. Soc.* **2017**, *139*, 9152–9155.

*These authors contributed equally

8. Woerly, E.M.; [Banik, S.M.](#); Jacobsen, E.N. “Enantioselective, Catalytic Fluorolactonization Reactions with a Nucleophilic Fluoride Source.” *J. Am. Chem. Soc.* **2016**, *138*, 13858–13861.

7. [Banik, S.M.](#); Medley, J.W.; Jacobsen, E.N. “Catalytic, asymmetric difluorination of alkenes to generate difluoromethylated stereocenters.” *Science* **2016**, *353*, 51–54.

6. [Banik, S.M.*](#); Medley, J.W.*; Jacobsen, E.N. “Catalytic, Diastereoselective 1,2-Difluorination of Alkenes.” *J. Am. Chem. Soc.* **2016**, *138*, 5000–5003.

*These authors contributed equally

5. Chung, K.*; [Banik, S.M.*](#); De Crisci, A.G.; Pearson, D.M.; Blake, T.R.; Olsson, J.V.; Ingram, A.J.; Zare, R.N.; Waymouth,

R.M. "Chemoselective Pd-Catalyzed Oxidation of Polyols: Synthetic Scope and Mechanistic Studies," *J. Am. Chem. Soc.* **2013**, *135*, 7593–7602.

*These authors contributed equally

4. Banik, S.M.; Monnot, B.L.; Weber, R.L.; Mahanthappa, M.K. "ROMP-CT/NMP Synthesis of Multiblock Copolymers Containing Linear Poly(ethylene) Segments." *Macromolecules*, **2011**, *44*, 7141–7148.

3. Weber, R. L.; Ye, Y.; Banik, S. M.; Elabd, Y. A.; Hickner, M. A.; Mahanthappa, M. K. "Thermal and Ion Transport Properties of Hydrophilic and Hydrophobic Polymerized Styrenic Imidazolium Ionic Liquids." *J. Polym. Sci., Part B: Polym. Phys.* **2011**, *49*, 1287–1296.

2. Weber, R.L.; Ye, Y.; Schmitt, A. L.; Banik, S. M.; Elabd, Y. A.; Mahanthappa, M. K. "Effect of Nanoscale Morphology on the Conductivity of Polymerized Ionic Liquid Block Copolymers." *Macromolecules*, **2011**, *44*, 5727–5735.

1. Sundaresan, A.K.; Jockusch, S.; Li, Y.; Lancaster, J.R.; Banik, S.; Zimmerman, P.; Blackwell, J.M.; Bristol, R.; Turro, N.J. "Adiabatic Ring Opening in Tethered Naphthalene and Anthracene Cycloadducts." *Photochem. Photobiol. Sci.*, **2010**, *9*, 1082-1084.

PATENTS

Banik, S.M.; Pedram, K.; Bertozzi, C. Lysosome targeting chimeras (LYTACs). U.S. Provisional Application No. 62/782,193. Filed: December 19, 2018.

PRESENTATIONS

"Catalytic, Stereoselective Difluorination of Alkenes"
Catalysis in Chemistry Symposium, Cambridge, MA

Apr. 2016

"Catalytic, Stereoselective Difluorination of Alkenes"
9th CaRLa Winter School Heidelberg, Germany

Feb. 2016

"Cooperativity of Silyl Triflates and Squaramide Organocatalysts in Asymmetric (4+3)
Cycloadditions: Enhanced Lewis Acidity and Enantioselectivity through Anion-Binding"
44th National Organic Symposium, College Park, MD

Jul. 2015

"Synthesis of Acyclic Olefin Chain Transfer Agents for Tandem ROMP-NMP Block Copolymer Synthesis"
241st ACS National Meeting, Anaheim, CA

Mar. 2011

"Tandem Ring-Opening Metathesis Polymerization and Nitroxide-Mediated Polymerization—a New Route to Block Copolymers"
Posters in the Rotunda 2010, Madison, WI

May 2010

AWARDS & HONORS

Career Award at the Scientific Interface, Burroughs Wellcome Fund | 2019-2024

National Institute of Health NRSA Postdoctoral Fellowship | 2017–2020

IUPAC-Solvay International Award for Young Chemists Honorable Mention | 2018

ACS-Division of Organic Chemistry Travel Award | 2015

Christiansen Travel Award | 2013

Lindau Nobel Laureate Conference | 2013

Bok Center Certificate of Distinction in Teaching | 2012–2013

Wayland E. Noland Fellowship | 2012

National Science Foundation Predoctoral Fellowship | 2011–2014

National Science Foundation-REU | Stanford University, 2010

Barry M. Goldwater Scholarship | 2010

Ackerman Award for Excellence in Chemistry | 2010

Dean's List | 2007-2011

Phi Beta Kappa | 2010

Ralph Abrams Scholarship | 2010

National Science Foundation-REU | Columbia University, 2009
Hilldale Undergraduate/Faculty Research Fellowship | 2009
American Chemical Society Organic Chemistry Award | 2009
Richard Fischer Chemistry Scholarship | 2009
Theodore Herfurth Scholarship | 2009
Edward Panek Memorial Scholarship | 2008
National Merit Finalist | 2007

TEACHING EXPERIENCE

Harvard University

Chemistry 17: Principles of Organic Chemistry

Aug. 2014–Dec. 2014
Head Teaching Fellow

Harvard University

Chemistry 17: Principles of Organic Chemistry

Aug. 2012–Dec. 2012
Teaching Fellow

Harvard University

Chemistry 27: Organic Chemistry of Life

Jan. 2012–May 2012
Teaching Fellow