Sheryl L. Wiskur

Work Address

University of South Carolina 631 Sumter Ave., GSRC 109 Columbia, SC 29208

EDUCATION

Doctor of Philosophy, Organic Chemistry, University of Texas at Austin, 2003

Adviser: Professor Eric V. Anslyn

Dissertation: "Boronic Acid and Guanidinium Based Synthetic Receptors: New Applications in Differential Sensing"

Email: wiskur@mailbox.sc.edu

Phone: (803) 777-8143

Applications in Differential Sensing

Bachelor of Science, Chemistry, Arizona State University, Tempe, AZ, 1997

Cum Laude

Undergraduate Research Adviser: Professor Devens Gust

University of Michigan at Flint, 1992-1994

Honors College

PROFESSIONAL EXPERIENCE

2016-Present	Associate Professor	University of South Carolina
2008-2016	Assistant Professor	University of South Carolina
2005-2008	Research Assistant Professor	University of South Carolina
2003-2005	Postdoctoral Associate	Massachusetts Institute of Technology
	Adviser: Professor Gregory C. Fu	
1999-2003	Research Assistant	University of Texas at Austin
	Adviser: Professor Eric V. Anslyn	
1998-2002	Teaching Assistant	University of Texas at Austin
1997	Research Assistant/Sponsored by NSF	Arizona State University
	(Center for the Study of Early Events in	n Photosynthesis)
1996	Internship in Chemistry Department	General Motors, Flint, Michigan
FUNDING	- · · · · ·	_
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NSF CHE Grant (2023-2026)

College of Arts and Sciences Faculty Travel Award - 2022

NSF CHE Grant (2019-2023)

College of Arts and Sciences Faculty Travel Award - 2018

College of Arts and Sciences Small Instrumentation Award - 2018

USC Office of Research Aspire Award – 2017 USC Office of Research Aspire Award - 2015

USC Office of Research Aspire Award – (Co-PI L Shimizu) 2015

SC EPSCoR SANS Award, 2015 SC EPSCoR Diversity Award, 2012

NSF Early Faculty Development CAREER Award (2011-2016)

ACS – Petroleum Research Fund – Type G

USC Research Foundation – Research and Productive Scholar

South Carolina Scientific – Synthesis and purification of analytical standards

USC Research Foundation, Magellan Scholar Award – Undergraduate Research (6)

HONORS AND AWARDS

Mungo Undergraduate Teaching Award 2022

NSF CAREER Award (2011-2016)

Division of Organic Chemistry Young Academic Award 2014

USC AI Faculty Partner of the Year 2014

Breakthrough Rising Star – University of South Carolina 2013

In Focus Alumni Magazine Highlight, Spring/Summer 2012

Organic, Reactions, & Processes - Gordon Conference Invited Speaker (2008)

Organic, Reactions, & Processes - Gordon Conference Discussion Leader (2007)

Centenary Assistant Professor (2005-2008)

Dorothy A. Banks Fellowship – UT Austin (2002)

Welch Academic Excellence Fellowship – UT Austin (2001)

Welch Excellence Teaching Award – UT Austin (1999)

NSF Undergraduate Fellowship in Photosynthesis – ASU (1997)

Honors College at The University of Michigan at Flint (1992-1994)

University of Michigan Academic/Honors Scholarship (1992-1994)

PROFESSIONAL ASSOCIATIONS

American Chemical Society, Division of Organic Chemistry Association of Women in Chemistry (AWIS) Alpha Chi Sigma, Chemical Fraternity

PRESENTATIONS

Academic Invited Seminars

East Tennessee State University - Johnson City, TN, Dept. of Chemistry, 2021 Virtual

Arizona State University – Tempe, AZ, Dept. of Chemistry, 2020 (COVID – cancelled)

University of Missouri – St. Louis, St. Louis, MO, Dept. of Chemistry and Biochemistry, 2019

University of Southern Mississippi, Hattiesburg, MS, School of Mathematics and Natural Sciences, 2019

Clemson, SC, Dept. of Chemistry and Biochemistry, 2017

Tulane University, New Orleans, LA, Dept. of Chemistry and Biochemistry, 2015

Rutgers, New Brunswick, NJ, Dept. of Chemistry and Biochemistry, 2015

University of Alabama - Tuscaloosa, AL, Dept. of Chemistry and Biochemistry, 2014

University of Texas – Austin, Dept. of Chemistry and Biochemistry, 2014

University of Richmond, Richmond, VA, Dept. of Chemistry and Biochemistry, 2014

Winthrop University, Rock Hill, SC, Dept. of Chemistry and Biochemistry, 2013

University of North Carolina – Wilmington, Wilmington, NC, Dept. of Chemistry & Biochemistry, 2013

University of North Carolina - Greensboro, Greensboro, NC, Dept. of Chemistry & Biochemistry, 2013

West Virginia University, Morgantown, WV, Dept. of Chemistry and Biochemistry, 2013

College of Charleston, Columbia, SC, Department of Chemistry and Biochemistry, 2012

Columbia College, Columbia, SC, Division of Biology and Physical Sciences, 2011

Davidson College, Davidson, NC, Department of Chemistry and Biochemistry, 2010

Louisiana State University, Baton Rouge, LA, Department of Chemistry, 2008

University of South Carolina, Columbia, SC, Department of Chemistry and Biochemistry, 2008

Rochester Institute of Technology - Rochester, NY, Department of Chemistry, 2007

University of Nevada - Las Vegas, NV, Department of Chemistry, 2007

George Washington University, Washington, D.C., Department of Chemistry, 2007

Miami University, Oxford, OH, Department of Chemistry and Biochemistry, 2007

Ohio University, Athens, OH, Department of Chemistry and Biochemistry, 2007

University of South Carolina, Columbia, SC, Department of Chemistry and Biochemistry, 2006,

Dartmouth, Hanover, NH, Department of Chemistry, 2006

New Mexico Tech., Socorro, NM, Department of Chemistry, 2006

University of Notre Dame, Notre Dame, IN, Department of Chemistry and Biochemistry, 2006

University of South Carolina, Columbia, SC, Department of Chemistry and Biochemistry, 2005

Conference Invited Seminars

4th Anatolian Conference on Organic Chemistry, Kemer, Türkiye, 2023

French American Chemical Society XVIII, Charleston, SC, 2022

51st Silicon Symposium, UCSD, San Diego, CA, 2022

SERMACS, Savannah, GA, 2019

46th Silicon Symposium, UC Davis, CA, 2015

Midwest Regional Meeting ACS, Columbia, MO, 2014

American Chemical Society National Meeting, San Francisco, CA, 2014 Division of Organic Chemistry Young Academic Award Symposium

American Chemical Society, SERMACS, Atlanta, GA, 2013

CASE Conference, Austin, 2013. (Unable to attend due to the birth of my child.)

NSF Physical Organic Workshop, Austin, 2010

NIH Mentoring Workshop, Dallas, 2009

Gordon Research Conference - Organic, Reactions, & Processes - Bryant University, 2008

Industrial Invited Seminars

Bristol-Myers Squibb, New Brunswick, NJ, 2015

Mettler Toledo Information Sharing Event, Durham, NC, 2014

Biogen Idec, Boston, MA, 2005

Saoirse Corporation, Cambridge, MA, 2005

Exxon Mobil, New Jersey, 2004

Bridgestone Firestone, Akron, OH, 2004

Presentations (Submitted)

ISMSC Conference, Eugene, Oregon, 2022 (talk)

American Chemical Society National Meeting, Orlando, FL 2019 (talk)

ISMSC Conference, Leche, Italy, 2019 (poster)

49th Silicon Symposium, Edmonton, Alberta, CA, 2018 (talk)

48th Silicon Symposium, Philadelphia, PA, 2017 (poster)

Gordon Research Conference - Stereochemistry - Salvi Regina University, 2014 (Poster)

American Chemical Society National Meeting, Philadelphia 2012; (Talk).

Gordon Research Conference - Stereochemistry - Salvi Regina University, 2012 (Poster)

American Chemical Society National Meeting, Boston, 2010 (Talk)

Gordon Research Conference - Stereochemistry - Salvi Regina University, 2010 (Poster)

ACS National Meeting, Salt Lake City, 2009 (Talk)

Gordon Research Conference - Organic, Reactions, & Processes - Bryant University, 2009 (Poster)

American Chemical Society, Boston, 2007 (Poster)

Gordon Research Conference - Organic, Reactions, and Processes - Bryant University, 2007 (Poster)

58th Southwest ACS Regional Meeting, Austin, 2002.

ACS National Meeting, Boston, 2002; (Poster).

ACS National Meeting, Boston, 2002; (Talk).

ACS National Meeting, Chicago, 2001; (Poster).

STUDENTS AND POSTDOCTORAL SCHOLARS

Undergraduate Students

- Barry Roberts
 Ryan Nangreave
- 3. John Hodgson
- 4. Christopher Roberts
- 5. Latonya Jones
- 6. Jeremy Gleaton
- 7. Vincent Slay
- 8. Jessica Taylor
- 9. Ashley Maharana
- 10. Jamin Lester
- 11. Richard Craven
- 12. Nasse Williams
- 13. William Mackay
- 14. Timothy Deaton
- 15. Matthew Mango
- 16. Suzanne Campbell
- 17. Philip Scott

- 18. Preston Gainey
- 19. Julia Pribyl
- 20. Mary Margavio
- 21. Alejandro Ortega
- 22. Naomi Plummer
- 23. Gilly Levy
- 24. Julia Fountain
- 25. Summer York
- 26. Mia Jenty
- 27. Bronwyn Hartman
- 28. Jane Vista
- 29. Amanda McGowen
- 30. Charlie Kuchman
- 31. Sreshta Ravi
- 32. Carlisle Goforth
- 33. Brianna Weirick

Graduate Students Receiving Graduate Degrees

- 1. Dieu Nguyen, PhD 2010
- 2. Sachin G. Patel, PhD 2010
- 3. Maggie Klauck, PhD 2012
- 4. Yan Zhang, MS 2013
- 5. Cody Sheppard, PhD 2013
- 6. Ravish Akhani, PhD 2014
- 7. Robert Clark, PhD 2015
- 8. Li Wang, PhD 2017

- 9. Tian Zhang, PhD 2019
- 10. Brandon Redden, PhD 2020
- 11. Shelby Dickerson, PhD 2021
- 12. Ziyuan Gong, current
- 13. Christian Harrison, current
- 14. Nathan Halsteter, current
- 15. Alberto Smith, current

Postdoctoral Scholars

1. Marc S. Maynor 2007-2008

Visiting Faculty

1. Julia Baker – Columbia College (Spring 2012 (sabbatical)/Summer 2013)

Student Presentations

Graduate

French American Chemical Society, Charleston, SC, June 14, 2022 "Investigation of the intermolecular interaction in the silylation reaction of trans-2-phenylcyclohexanol" – Ziyuan Gong

French American Chemical Society, Charleston, SC, June 14, 2022 "Increasing the Effectiveness of Polymer Bound Reagents by Modifying the Polymers Microenvironment" – Nathan Halsteter

Spring ACS Meeting, San Diego, CA March 2022 "Investigation of cation-π interactions with imidazole and isothiourea catalysts" - Ziyuan Gong

SC EPSCOR meeting, 2018, "Investigating the Photophysical Properties of Silicon Phthalocyanines for Photocatalytic Organic Transformations", Shelby Dickerson

- I-APS Meeting January 2018, "Exploration of Silicon Phthalocyanines as Viable Photocatalysts for Organic Transformations", Shelby Dickerson
- SERMACS, 2018 "Investigation of Cation- π Interactions in Silylation-based Kinetic Resolutions", Tian Zhang
- ACS National Meeting, 2015, "Kinetic Resolution of 2-Aryl Cyclohexanols via Asymmetric Silylation", Li Wang
- USC Discovery Day Poster, 2014 "Mechanistic Study of an Enantioselective Silylation-Based Kinetic Resolution", Ravish Akhani
- ACS National Meeting, 2013, "Silylation Based Kinetic Resolution of a-Hydroxy Lactones and Lactams", Robert Clark
- ACS National Meeting, 2013, "Mechanistic Study of an Enantioselective Silylation Based Kinetic Resolution", Ravish Akhani
- ACS National Meeting, 2012, "Mechanistic Investigation of a Silylation Based Kinetic Resolution of Secondary Alcohols", Ravish Akhani

Undergraduate

- USC Discovery Day poster, Columbia, SC, April 2023 "Chiral Isothiourea Catalysts for Enantioselectivity and Intermolecular Interactions", Amanda McGowan
- USC Research Symposium, 2017, "Asymmetric Trifluoromethylation", Mia Jeanty
- USC Discovery Day Poster, 2017, "The Thermodynamic Resolution of Silicon Compounds: Optimization of Reactions Conditions to Achieve High Enantioselectivity", Julia Fountain
- USC Discovery Day poster, Columbia, SC, April 2014 "Mechanistic Investigation and Substrate Expansion of Silylation-Based Kinetic Resolutions", Julia Pribyl
- ACS National Meeting, 2013, "Silylation-Based Kinetic Resolution of a-Hydroxy Lactones and Lactams", Timothy Deaton
- USC Discovery Day poster, Columbia, SC, April 2011 "Methodology Development for the Asymmetric Silylation of Secondary Alcohols", Jessica Taylor
- USC Discovery Day poster, Columbia, SC, April 2008 "Exploring an Enantioselective Silylation", John Hodgson

Student Awards

Graduate

- SPARC: Christian Harrison: Photophysical and Stability Investigation of Silicon Phthalocyanines through Axial Protection and an Extended Conjugated System, \$5,000 (2023)
- 2022 French American Chemical Society Poster Award from Royal Society of Chemistry Ziyuan Gong
- 2020 Preparing Future Faculty UofSC Nathan Halsteter
- SPARC: Shelby Dickerson: Tuning the Redox Properties of Silicon Phthalocyanines by Peripheral-Substitution for Organic Photocatalysis, \$4,999 (2019)
- 2019 Inter-American Photochemical Society (I-APS) Conference Poster Winner 1st Place Shelby Dickerson (January 2019)
- USC Joseph W. Bouknight Teaching Award Li Wang (Spring 2016, Summer 2016)
- USC Graduate School Travel Grants Li Wang (Spring 2015)
- Oakwood Products Best Poster Award Ravish Akhani (Spring 2014)
- ACS Division of Organic Chemistry Travel Award Robert Clark (Spring 2013)
- USC Graduate School Travel Grants Ravish Akhani (Spring 2013)

GlaxoSmithKline Internship – Cody Sheppard (2012-2013)

ACS – Division of Organic Chemistry Travel Award – Ravish Akhani (Spring 2012)

J.R. During Graduate Student Travel Award – Ravish Akhani (Spring 2012)

ACS – Division of Organic Chemistry Travel Award – Cody Sheppard (Fall 2011)

J.R. During Graduate Student Travel Award – Maggie Klauck (Fall 2011)

J.R. During Graduate Student Travel Award – Sachin Patel (Spring 2009)

Undergraduate

Capstone Scholars Magellan Apprentice Grant, Sreshta Ravi, 2023, \$1000

CAS Undergraduate Research Enhancement Program, Brianna Weirick, 2023, \$1000

Magellan Scholar, Amanda McGowen, 2022, \$2750

Magellan Scholar Jane Vista, 2020, \$2000

Magellan Scholar Julia Fountain, 2017, \$2000

Who's Who Among Students in American Colleges and Universities – Julia Pribyl, 2014

ACS Undergraduate Award in Organic Chemistry, Julia Pribyl, 2014

ACS Undergraduate Award in Organic Chemistry, T. Max Deaton, 2013

Magellan Scholar Julia Pribyl, 2012, \$2000

Magellan Honors College Fellowship, Julia Pribyl, 2012,

In Focus Alumni Magazine Highlight, Jessica L. Taylor Spring/Summer 2012

Magellan Scholar Jessica L. Taylor, 2010, \$3000

Magellan Scholar, John Hodgson, 2008, \$3000

OTHER PROFESSIONAL ACTIVITIES

Honors Thesis Director

Jordan Ries 2021 Amanda McGowan 2023

Advisory Boards

Reaction Chemistry and Engineering

Symposium/Conference Organizing

50th Annual North American Silicon Symposium, Columbia, SC -2.5 day conference Co-Organizer: Thomas A. Schmedake (Asst. Prof. – UNC Charlotte), May 13-15, 2019.

68th SERMACS ACS 2016 – 2-day symposium entitled "Asymmetric Chemistry Throughout the Southeast." Co-Organizer: Kimberly Petersen (Asst. Prof. – UNC Greensboro.)

65th SERMACS ACS 2013 – 2-day symposium entitled ""Approaches to Organic Synthesis Across Disciplines." Co-Organizer: Daniel Whitehead (Asst. Prof. – Clemson Univ.)

REFEREEING

Journal Reviews

ACS Catalysis Journal of Organic Chemistry

Angew. Chem. Int. Ed.

Journal of Organometallic Chemistry
ARKIVOC

Journal of the American Chemical Soc.

ChemCatChem Letters of Organic Chemistry

ChemPhysChem Langmuir
Chemical Communications Molecules

Chemistry A European Journal Nature

Chemistry Letters Nature Chemistry
European Journal of Organic Chemistry Nature Communications

Organic Chemistry International

Organic Letters

Organic Preparations & Procedures International

Reaction Chemistry & Engineering

Supramolecular Chemistry

Synthesis Tetrahedron

Tetrahedron Asymmetry Tetrahedron Letters

Research Proposal Reviews

National Science Foundation

ACS - Petroleum Research Fund

Louisiana Board of Regents' Pilot Funding for New Research (Pfund) program

Northern Illinois University Grant Program

University of South Carolina

Book Reviews

Wiley

Oxford

Cengage

COMMITTEE SERVICE

University

Dean of the Graduate School Search Committee

Women's Faculty Organization Steering Committee

Safety Task Force

College of Arts and Sciences

Early Career Development Workshop organizer

Associate Dean Search Committee

Department

Graduate Director – Dept. of Chemistry and Biochemistry

Admissions Committee, Chair

Industrial Advisory Board

Dry Still Committee

Organic Seminar

AWIS South Carolina Chapter President

Faculty Search Committee – Cancer Therapeutics

Graduate Student Career Workshop

CLASSES TAUGHT

- 1. CHEM 333 Organic Chemistry I (Undergraduate)
- 2. CHEM 334 Organic Chemistry II (Undergraduate)
- 3. CHEM 701 Organic Seminar (Graduate)
- 4. CHEM 736 Advanced Organic Synthesis (Graduate)

PUBLICATIONS (from USC)

- Dickerson, S. D.; Ayare, P. J.; Vannucci, A. K.; **Wiskur, S. L**. "Exploration of Silicon Phthalocyanines as Viable Photocatalysts for Organic Transformations" *J. Photochem. Photobiol A.*, **2022**, 422, 113547. DOI: 10.1016/j.jphotochem.2021.113547
- Redden, B.; Clark, R.; Gong, Z.; Rahman, M.; Peryshkov, D.; **Wiskur, S. L.** "Mechanistic Investigations of Alcohol Silylation with Isothiourea Catalysts" *Org. Biomol. Chem.* **2021**, *19*, 10181-10188. DOI: 10.1039/d1ob01732b.
- Zhang, T.; Dickerson, S. D.; Zhu, T.; Tang, C.; **Wiskur, S. L.** "Polymer compositions on kinetic resolution of secondary alcohols using polymer-supported silyl chlorides" *Polym. Chem.*, **2020**, *11*, 5011. DOI: 10.1039/d0py00747a
- Zhang, T.; Reddon, B.; **Wiskur, S. L**. "Investigation of electrostatic interactions towards controlling silylation-based kinetic resolutions" *Eur. J. Org. Chem.*, **2019**, 4827-4831. DOI: 10.1002/ejoc.201900754
- Narangoda, C. J.; Kakeshpour, T.; Lex, T. R.; Redden, B. K.; Moore, M. A.; Frank, E. M.; McMillen, C. D.; Wiskur, S. L.; Kitaygorodskiy, A.; Jackson, J. E.;* Whitehead, D. C.* "Cycloaddition/Electrocyclic Ring Opening Sequence between Alkynyl Sulfides and Azodicarboxylates To Provide N,N-Dicarbamoyl 2-Iminothioimidates" *J. Org. Chem.*, 2019, 84, 9734-9743. DOI: 10.1021/acs.joc.9b01515
- Wang, L.; Zhang, T.; Redden, B. K.; Sheppard, C. I.; Clark, R. W.; Smith, M. D.; Wiskur, S. L. "Understanding Internal Chirality Induction of Triarylsilyl Ethers Formed from Enantiopure Alcohols" *J. Org. Chem.* **2016**, *81*, 8187-8193. DOI: 10.1021/acs.joc.6b01137
- Clark, R. W.; Akhani, R. K.; Wiskur, S. L. "Polymers and Kinetic Resolutions: The Insolubility of It All" *ChemCatChem* **2016**, *8*, 879-885. DOI: 10.1002/cctc.201500887
- Wang, L.; Akhani, R. K.; **Wiskur, S. L**. "Diastereoselective and Enantioselective Silylation of 2-Aryl Cyclohexanols" *Org. Lett.* **2015**, *17*, 2408–2411. DOI: <u>10.1021/acs.orglett.5b00919</u>
- Akhani, R. K.; Clark, R. W.; Yuan, L.; Wang, L.; Tang, C.; **Wiskur, S. L.** "Polystyrene-Supported Triphenylsilyl Chloride for the Silylation-Based Kinetic Resolution of Secondary Alcohols" *ChemCatChem* **2015**, *7*, 1527-1530. DOI: <u>10.1002/cctc.201500173</u>
- Akhani, R. K.; Moore, M. I.; Pribyl, J. G.; **Wiskur, S. L.** "Linear Free-Energy Relationship and Rate Study on a Silylation-Based Kinetic Resolution: Mechanistic Insights" *J. Org. Chem.* **2014**, *79*, 2384-2396. DOI: 10.1021/jo402569h
- Clark, R. W.; Deaton, T. M.; Zhang, Y.; Moore, M. I.; **Wiskur, S. L.** "Silylation-Based Kinetic Resolution of α-Hydroxy Lactones and Lactams" *Org. Lett.*, **2013**, *15*, 6132-6135. DOI: 10.1021/ol402982w
- Nguyen, D.; Akhani, R. K.; Sheppard, C. I.; **Wiskur, S. L.** "A Structure-Activity Relationship of Formamides as Organocatalysts: The Significance of Formamide Structure and Conformation." *Eur. J. Org. Chem.* **2013**, 2279–2283. DOI: 10.1002/ejoc.201201662
- Wiskur, S. L.; Maynor, M. S.; Smith, M. D.; Sheppard, C. I.; Akhani, R. K.; Pellechia, P. J.; Vaughn, S. A.; Shieh, C. "Chiral pyridinyloxazolidine ligands and copper chloride complexes." *J. Coord. Chem.*, 2013, 66, 1166-1177. DOI: 10.1080/00958972.2013.775426
- Klauck, M; Patel, S. G.; **Wiskur, S. L.** "Obtaining Enriched Compounds via a Tandem Enantioselective Reaction and Kinetic Resolution Polishing Sequence." *J. Org. Chem.* **2012**, 77, 3570-3575. DOI: 10.1021/jo202653b
- Sheppard, C. I.; Taylor, J. L.; **Wiskur, S. L**. "Silylation-Based Kinetic Resolution of Monofunctional Secondary Alcohols." *Org. Lett.* **2011**, *13*, 3794–3797. DOI: 10.1021/ol2012617

Patel, S. G.; **Wiskur, S. L.** "Mechanistic Investigations of the Mukaiyama Aldol Reaction as a Two Part Enantioselective Reaction." *Tetrahedron Lett.*, **2009**, *50*, 1164-1166. DOI: 10.1016/j.tetlet.2008.12.083

BOOK CHAPTERS (from USC)

- Clark, R. W.; Wiskur, S. L., Silyl Hydrides. In *Science of Synthesis, Knowledge Updates 2015/1*; Oestreich, M., Ransden, C., Wirth, T., Eds; Georg Thieme Verlag KG: Stuttgart, 2015; pp 1-58
- Bicker, K; Wiskur, S. L.; Lavigne, J. J. Colorimetric Sensor Design, In *Chemosensors: Principles, Strategies, and Applications*; B. Wang, E. V. Anslyn, Eds.; Wiley Series in Drug Discovery and Development; Wiley: New York, 2011.

PUBLICATIONS (PhD/Postdoc)

- Wiskur, S. L.; Fu, G. C. "Catalytic Asymmetric Synthesis of Esters from Ketenes." *J. Am. Chem. Soc.* 2005, 127, 6176-6177.
- Wiskur, S. L.; Korte, A.; Fu, G. C. "Cross-Couplings of Alkyl Electrophiles Under "Ligandless" Conditions: Negishi Reactions of Organozirconium Reagents." *J. Am. Chem. Soc.* **2004**, *126*, 82-83.
- Wiskur, S. L.; Lavigne, J. J.; Metzger, A.; Tobey, S.; Lynch, V.; Anslyn, E. V. "Thermodynamic Analysis of Receptors Based on Guanidinium/Boronic Acid Groups for the Complexation of Carboxylates, α-Hydroxycarboxylates, and Diols: Driving Force for Binding and Cooperativity." *Chem. Eur. J.* **2004**, *10*, 3792-3804.
- Manimala, J. C.; **Wiskur, S. L.**; Ellington, A. D.; Anslyn, E. V. "Tuning the Specificity of a Synthetic Receptor Using a Selected Nucleic Acid Receptor." *J. Am. Chem. Soc.* **2004**, *126*, 16515-16519.
- Nguyen, B. T.; Wiskur, S. L.; Anslyn, E. V. "Using Indicator-Displacement Assays in Test Strips and to Follow Reaction Kinetics." *Org. Lett.* **2004**, *6*, 2499-2501.
- Piatek, A. M.; Bomble, Y. J.; Wiskur, S. L.; Anslyn, E. V. "Threshold Detection Using Indicator-Displacement Assays: An Application in the Analysis of Malate in Pinot Noir Grapes." J. Am. Chem. Soc. 2004, 126, 6072-6077.
- McCleskey, S. C.; Floriano, P. N.; **Wiskur, S. L.**; Anslyn, E. V.; McDevitt, J. T. "Citrate and Calcium Determination in Flavored Vodkas Using Artificial Neural Networks." *Tetrahedron* **2003**, *59*, 10089-10092.
- Wiskur, S. L.; Floriano, P. N.; Anslyn, E. V.; McDevitt, J. T. "A Multicomponent Sensing Ensemble in Solution: Differentiation between Structurally Similar Analytes." *Angew. Chem., Int. Ed.* **2003**, *42*, 2070-2072.
- Ait-Haddou, H.; Sumaoka, J.; **Wiskur, S. L.**; Folmer-Andersen, J. F.; Anslyn, E. V. "Remarkable Cooperativity Between a "Zn^{II} Ion and Guanidinium/Ammonium Groups in the Hydrolysis of RNA." *Angew. Chem., Int. Ed.* **2002**, *41*, 4014-4016.
- Wiskur, S. L.; Ait-Haddou, H.; Lavigne, J. J.; Anslyn, E. V. "Teaching Old Indicators New Tricks." *Acc. Chem. Res.* 2001, *34*, 963-972.
- Wiskur, S. L.; Anslyn, E. V. "Using a Synthetic Receptor to Create an Optical-Sensing Ensemble for a Class of Analytes: A Colorimetric Assay for the Aging of Scotch." *J. Am. Chem. Soc.* **2001**, *123*, 10109-10110.

- Wiskur, S. L.; Lavigne, J. J.; Ait-Haddou, H.; Lynch, V.; Chiu, Y. H.; Canary, J. W.; Anslyn, E. V. "pK_a Values and Geometries of Secondary and Tertiary Amines Complexed to Boronic Acids-Implications for Sensor Design." *Org. Lett.* **2001**, *3*, 1311-1314.
- Ait-Haddou, H.; Wiskur, S. L.; Lynch, V. M.; Anslyn, E. V. "Achieving Large Color Changes in Response to the Presence of Amino Acids: A Molecular Sensing Ensemble with Selectivity for Aspartate." J. Am. Chem. Soc. 2001, 123, 11296-11297.

BOOK CHAPTER (PhD)

Wiskur, S. L.; Metzger, A.; Lavigne, J. J.; Schneider, S. E.; Anslyn, E. V.; McDevitt, J. T.; Neikirk, D.; Shear, J. B. "Mimicking the Mammalian Sense of Taste Through Single and Multi-Component Analyte Sensors." in *Chemistry of Taste*; Given, P., Paredes, D., Eds.; ACS Symposium Series 825; American Chemical Society: Washington, D. C., 2002; pp.276-288.