# 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

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	<b>University of Texas at Austin</b>
	Adviser: Professor Eric V. Anslyn	
1998-2002	Teaching Assistant	<b>University of Texas at Austin</b>
1997	Research Assistant/Sponsored by NSF	Arizona State University
	(Center for the Study of Early Events i	n Photosynthesis)
1996	<b>Internship in Chemistry Department</b>	General Motors, Flint, Michigan
<b>FUNDING</b>		_

USC Office of Research Aspire Award - 2024

ACS – Petroleum Research Fund –New Direction (2024-2026)

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

Career Influencer Award 2024

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**

University of Maryland, - College Park, MD, Dept. of Chemistry, 2025

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**

4<sup>th</sup> 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

46<sup>th</sup> 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)**

SERMACS, Atlanta, GA 2024 (Talk)

Reaction Mechanism Conference, Albuquerque, New Mexico, 2024 (poster)

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)

48<sup>th</sup> 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) 58<sup>th</sup> 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**

1.	Barry Roberts	20.	Mary Margavio
2.	Ryan Nangreave	21.	Alejandro Ortega
3.	John Hodgson	22.	Naomi Plummer
4.	Christopher Roberts	23.	Gilly Levy
5.	Latonya Jones	24.	Julia Fountain
6.	Jeremy Gleaton	25.	Summer York
7.	Vincent Slay	26.	Mia Jenty
8.	Jessica Taylor	27.	Bronwyn Hartman
9.	Ashley Maharana	28.	Jane Vista
10.	Jamin Lester	29.	Amanda McGowen
11.	Richard Craven	30.	Charlie Kuchman
12.	Nasse Williams	31.	Sreshta Ravi
13.	William Mackay	32.	Carlisle Goforth
14.	Timothy Deaton	33.	Brianna Weirick
15.	Matthew Mango	34.	Grace Greway
16.	Suzanne Campbell	35.	Jayden Branch
17.	Philip Scott		
18.	Preston Gainey		
19.	Julia Pribyl		

# **Graduate Students Receiving Graduate Degrees**

1.	Dieu Nguyen, PhD 2010	9.	Tian Zhang, PhD 2019
2.	Sachin G. Patel, PhD 2010	10.	Brandon Redden, PhD 2020
3.	Maggie Klauck, PhD 2012	11.	Shelby Dickerson, PhD 2021
4.	Yan Zhang, MS 2013	12.	Ziyuan Gong, PhD 2024
5.	Cody Sheppard, PhD 2013	13.	Christian Harrison, PhD 2025
6.	Ravish Akhani, PhD 2014	14.	Nathan Halsteter, MS 2025
7.	Robert Clark, PhD 2015	15.	Alberto Smith, current
8.	Li Wang, PhD 2017	16.	Colin Catalano, current

### **Postdoctoral Scholars**

1. Marc S. Maynor 2007-2008

# **Visiting Faculty**

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

# **Student Presentations**

# Graduate

Spring ACS Meeting, San Diego, CA March 2025 "Understanding Microenvironment Polarity in Polymers with a Solvatochromophore", Alberto Smith

- USC Department of Chemistry and Biochemistry Poster Competition, February 2025, "Photophysical and Electrochemical Investigation into Silicon Phthalocyanines", Christian Harrison
- USC Discovery Day Poster, Columbia, SC, April 2024, "Photophysical and Stability Investigation of Silicon Phthalocyanines", Christian Harrison
- SERMACS, Durham, NC, October 25, 2023 "Studying non-covalent interactions in organocatalysis by varying electronics on chiral isothiourea catalysts" Christian Harrison
- 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- $\pi$  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 2024, "Tailoring Silicon Phthalocyanines and Naphthalocyanines for Organic Catalysis", Brianna Weirick
- USC Discovery Day Poster, Columbia, SC, April 2024, "Measuring Microenvironment Polarity: Changing Polymer Microenvironments to Mimic Bulk Solvents", Sreshta Ravi
- 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/Funding**

#### 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 1<sup>st</sup> 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

Magellan Scholar, Brianna Weirick, 2024, \$2463

Sustainable Magellan Award, Grace Greway, 2024, \$995

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

SCAMP Summer Research Grant - Mia Jenty, 2017

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

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

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

65<sup>th</sup> 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 Molecules Angew. Chem. Int. Ed. Nature

ARKIVOC Nature Chemistry
ChemCatChem Nature Communications

ChemPhysChem Organic Chemistry International

Chemical Communications Organic Letters

Chemistry A European Journal Organic Preparations & Procedures International

Chemistry Letters Reaction Chemistry & Engineering

European Journal of Organic Chemistry Supramolecular Chemistry

Journal of Organic Chemistry

Synthesis

Journal of Organometallic Chemistry

Tetrahedron

Journal of the American Chemical Soc. Tetrahedron Asymmetry
Letters of Organic Chemistry Tetrahedron Letters

Langmuir

# **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

Committee on Science, Math, Engineering, Health Sciences, and Related Professional Programs NSF Graduate Research Fellowship Committee (Fall 2024-present)

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 (2022-present)

Associate Dean Search Committee

# **Department**

General or Organic Chemistry Instructor Hiring Committee, Chair

Organic Chemistry Instructor Hiring Committee, Chair

Graduate Director – Dept. of Chemistry and Biochemistry (2019-present)

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)

- Gong, Z.; Smith, A.; Harrison, C. J.; Trapnell, E.; **Wiskur, S. L.** "From Lone Pairs to Power Players: How Non-Nucleophilic Lone Pairs Can Control the Nucleophilicity of a Catalyst" *J. Org. Chem.* **2025**, *90*, 4167-4172. DOI: 10.1021/acs.joc.4c02557
- Harrison, C. J.; Dickerson, S. D.; Gong, Z.; McGowan, A. S.; Vista, J.; **Wiskur, S. L**. "Varying the Electronics on Isothiourea Catalysts: Basicity, Rate, and Selectivity" *Eur. J. Org. Chem.* **2024**, 27, e202400641 DOI: 10.1002/ejoc.202400641
- Gong, Z.; Smith, A.; Farah, A. O.; Dickerson, S. D.; González-Montiel, G. A.; Laddusaw, J. M.; Cheong, P. H.-Y.; **Wiskur, S. L**. "Investigating substituent interactions with cationic catalysts" *J. Org. Chem.* **2023**, *88*, 16898-16905. DOI: <u>10.1021/acs.joc.3c01721</u>
- 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: 10.1021/acs.orglett.5b00919
- 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: 10.1002/cctc.201500173
- 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: <u>10.1002/ejoc.201201662</u>
- 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: <a href="https://doi.org/10.1021/ol2012617">10.1021/ol2012617</a>
- 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<sup>II</sup> 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<sub>a</sub> 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.