Timothy B. Clark Ph.D. Spring 2025

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Education

2006	Ph.D., Organic Chemistry, University of California, Irvine

Bachelor of Arts (Cum Laude) in Chemistry (ACS Certified), minor in

Religious Studies, University of San Diego

Experience

2020-present	Professor of Chemistry University of San Diego, San Diego, CA Teaching Specialty: organic chemistry/organometallic chemistry Research Interests: methodology development/organometallic reactions
2024–present	Director for Undergraduate Research
	University of San Diego, San Diego, CA
2022–2024	Associate Chair, Department of Chemistry and Biochemistry University of San Diego, San Diego, CA
2014–2020	Associate Professor of Chemistry
	University of San Diego, San Diego, CA
Fall 2016	Visiting Professor of Chemistry
	Universidad Autónoma de Madrid, Madrid, Spain
2011–2014	Assistant Professor of Chemistry
	University of San Diego, San Diego, CA
2007–2011	Assistant Professor of Chemistry
	Western Washington University, Bellingham, WA
2006–2007	NIH Ruth L. Kirschstein Postdoctoral Fellow with Professor Charles P.
	Casey University of Wisconsin-Madison
2001–2006	Graduate Research Associate with Professor Keith A. Woerpel University of California, Irvine

2003–2005	Coordinator of UCI Department of Chemistry Postdoctoral and Graduate Student Colloquium
2000	Research Experience for Undergraduates with Professor Edwin Vedejs, <i>University of Michigan, Ann Arbor</i>
1999	Undergraduate Research Internship , Aguoron Pharmaceuticals, La Jolla, CA
1998–2001	Undergraduate Research Assistant with Tammy J. Dwyer, University of San Diego

Courses Taught

University of San Diego

Course Number	Title	Term Taught
Chem 301	Organic Chemistry I	F11, F13, F15, F17,
		F19, F20, F22, S23
Chem 301L	Organic Chemistry I Laboratory	F11, F14, F17, F19,
		F21, F22
Chem 302	Organic Chemistry II	S12, S13, S14, S15,
		S17, S18, S21, S22,
		F23, F24
Chem 302L	Organic Chemistry II Laboratory	S12, S13, S15, S17,
		S18, S22, S23, F23
Chem 396/Chem 396W	Research Methods	S14, S17, S20
Chem 421	Organic/Physical Experimental	F12, F13, F15
Chem 424	Advanced Synthesis Laboratory	S16, S20, S21
Chem 494	Organometallic Chemistry	F14, S20, S24

Western Washington University

Course Number	Title	Term Taught
Chem 351	Organic Chemistry I	F07, F10
Chem 352	Organic Chemistry II	W08, W10, W11
Chem 353	Organic Chemistry III	S08, F08, S10, S11
Chem 354	Organic Chemistry Laboratory I	W08, S08, W10, S10
Chem 355	Organic Chemistry Laboratory II	F08, F09
Chem 356	Organic Chemistry Lab II Life Sci.	F10
Chem 425B/553	Organic Reactions	W09, F09
Chem 425M/540	Organometallic Chemistry	S09, S11
Chem 595/596	Seminar	W09

Honors, Awards and Professional Societies

2021	Cottrell Scholars STAR (Science Teaching and Research) Award
2021	USD Office of Undergraduate Research Mentor Award
2019-2020	USD University Professorship
2018	USD Faculty Research Grant
2017, 2020	USD Mortar Board Faculty Honoree
2017	Honorable Mention, ACS DIC Undergraduate Research Award
2017	"Best Presentation" of Session at ACS Meeting (Fall 2017)
2017	USD Office of Sponsored Programs Million Dollar Club
2016	Henry Dreyfus Teacher-Scholar Award
2016	University of California, Irvine Top 50 Graduate Student and Postdoctoral
	Scholar Alumni
2015	Research Corporation Cottrell Scholar
2013	246 th ACS National Meeting DOC Young Academic Investigators Award
2012	NSF CAREER Award
2010	W. Washington University RSP Mini-Project Development Award
2009	W. Washington University RSP Project Development Award
2008	Research Corporation Cottrell College Science Award
2005	University of California Regents' Dissertation Fellowship
2003-current	American Chemical Society Member
2001-current	Kappa Gamma Pi Honor Society Member
2001	Outstanding Undergraduate in Chemistry Award, University of San Diego
1999–2001	University of San Diego Associated Student Undergraduate Research
	Grant
1999–2001	Kiwanis of San Diego Scholarship
1998–2001	Bishop Maher Leadership Scholarship
1998–2001	Ahmanson Foundation Scholarship
1997–2001	University of San Diego Scholarship

External Research Grants

Funded:

9/2022-8/2025	National Science Foundation Research at Undergraduate Institutions \$300,000 "RUI: Phosphorus-Directed C-H Borylation and Reactivity of Phosphaboronates"
5/2022–9/2023	Organic Syntheses, Inc. PUI Grant \$16,000 "Homologation of Ketones to Aldehydes via <i>gem</i> -Diboronates"
7/2021-8/2024	American Chemical Society-Petroleum Research Fund \$70,000 "New Methods to Access Carbon-Phosphorus and Phosphorus-Boron Bonds"

9/2019–8/2022	Jean Dreyfus Lectureship at Undergraduate Institutions \$18,500 Supports two-day speaker and two undergraduate summer fellowships.
9/2018-8/2021	National Science Foundation Research at Undergraduate Institutions \$262,221 "RUI: Phosphine-Directed C-H Borylation: Catalysis Development to Bifunctional Ligand Synthesis"
5/2018–9/2018	Organic Syntheses, Inc. Grant for Summer Research at an Undergraduate Institution \$8,000 "Phosphine-Directed meta-C-H Borylation: Facile Synthesis of Functionalized Phosphines"
1/2017–12/2021	Henry Dreyfus Teacher Scholar Award \$60,000 "Metal-Catalyzed Borylation Reactions"
9/2016-8/2020	National Institutes of Health (AREA, R15) \$380,334 "Nucleophilic Borylation of Aldehydes and Conjugated Carbonyls: Applications to Homologation and Carbosilylation Reactions" Co-PI: Gregory O'Neil
1/2015-8/2018	American Chemical Society Petroleum Research Fund (Undergraduate Research) \$70,000 "Phosphine-Directed C-H Borylation of Arenes: Facile Access to Ambiphilic Phosphine Boronate Esters"
7/2012–12/2017	National Science Foundation: Faculty Early Career Development (CAREER) \$430,396 "CAREER: Substrate-Directed C-H Borylation Reactions"
4/2011–3/2014	National Science Foundation: Research Experience for Undergraduates \$330,000 "REU Site: Research Experience for Undergraduates in Chemistry at Western Washington University" Co-PI: P. Clint Spiegel
7/2010–9/2013	National Institutes of Health: ARRA AREA (R15) \$378,055

"Developing the Synthetic Utility of the Copper-Catalyzed Diboration of Carbonyls and Imines"

1/2008–12/2010 Research Corporation Cottrell College Science Award

\$44,651

"Copper-Catalyzed Diboration of Ketones: Facile Synthesis of Tertiary α -Hydroxy Boronate Esters"

1/2008–8/2011 American Chemical Society Petroleum Research Fund (Type G)

\$50,000

"Chelation Directed C–H Functionalization Reactions with Ruthenium Boryl Complexes"

Publications

Independent Publications (*undergraduate student coauthor; % high school student co-author)

- 28. *McLellan, M. K.; *Hemphill, J. T.; *Petty, S. J.; *Daniels, J. D.; *Serrano, I.; *Gaylor, S. C.; Iranfar, S.; *Shibkov, N.; *Bailey, B. J.; Clark, T. B. "Expedient Synthesis of Arylphosphonates by the Direct C-P Cou-pling of Arylboronate Esters with Dialkyl Phosphites" *Organic Letters* (Submitted for Publication)
- 27. Le, N.; *Chuag, N. L.; *Oliver, C. M.; Samoshin, A. V.; *Hemphill, J. T.; *Morris, K. C.; *Hyland, S. N.; Guan, H.; Webster C. E.; Clark, T. B. "Hidden Role of Borane in Directed C-H Borylation: Rate Enhancement through Autocatalysis" *ACS Catalysis*, **2023**, 13, 12877-12893.
- 26. Fomina, I. A.; Myers, C. R.; Soumis, C. L. M.; Scheuermann, M. L.; McCarty, J.; Clark, T. B.; O'Neil, G. W. "Regiodivergent Medium-Ring Oxasilacycle Synthesis from Diallylsilanes" *Heterocycles* **2022**, *104*, 1966–1993.
- 25. *Auth, M. R.; McGarry, K. A.; Clark, T. B. "Phosphorus-Directed C-H Borylation" *Advanced Synthesis and Catalysis*, **2021**, *363*, 2354–2365.
- 24. Myers, C. R.; Spaltenstein, P.; Baker, L. K.; Schwans, C. L.; Clark, T. B.; O'Neil, G. W. "Sequential Iodine-Mediated Diallysilane Rearrangement/Asymmetric Dihydroxylation: Synthesis and Reactions of Enantioenriched Oxasilacycles" *Tetrahedron Letters*, **2021**, 82, 153392.
- 23. *Morris, K. C.; *Wright, S. E.; Clark, T. B. "Phosphine-Directed sp³ C-H, C-O, and C-N Borylation" *Journal of Organic Chemistry*, **2020**, 85, 14795–14801.
- 22. Xu, F.; Duke, O. M.; Rojas, D.; *Eichelberger, H. M.; Kim, R. S.; Clark, T. B.; Watson, D. A. "Arylphosphonate-Directed Ortho C–H Borylation: Rapid Entry into Highly-Substituted Phosphoarenes" *Journal of the American Chemical Society*, **2020**, *142*, 11988–11992.

- 21. *Meyer, G. F.; *Nistler, M. A.; Samoshin, A. V.; *Thane, T. A.; *Ferber, C. J.; *McManus, B.; O'Neil, G. W.; Clark, T. B. "β-Silyloxy Allylboronate Esters through an Aldehyde Borylation/Homologation Sequence" *Tetrahedron Letters* **2020**, *61*, 152082.
- 20. Clark, T. B; Cho, H. Y., In *Science of Synthesis: Advances in Organoboron Chemistry towards Organic Synthesis*, Fernández, E., Ed.; Thieme: Stuttgart, (2019); p 131-182.
- 19. *Hyland, S. N.; *Meck, E. A.; Tortosa, M.; Clark, T. B. "α-Amidoboronate Esters by Amide-Directed Alkane C–H Borylation" *Tetrahedron Letters*, **2019**, *60*, 1096-1098.
- 18. Spaltenstein, P.; Cummins, E. J.; Yokuda, K.-M.; Kowalczyk, T.; Clark, T. B.; O'Neil, G. W. "Chemoselective Carbonyl Allylations with Alkoxyallylsiletanes" *Journal of Organic Chemistry*, **2019**, *84*, 4421-4428.
- 17. *Wright, S. E.; *Richardson-Solórzano, S.; Stewart, T. N.; *Miller, C. D.; *Morris, K. C.; Daley, C. J. A.; Clark, T. B. "Accessing Ambiphilic Phosphine Boronates through C-H Borylation by an Unforeseen Cationic Iridium Complex" *Angewandte Chemie, International Edition*, **2019**, *58*, 2834-2838.
- 16. López, A.; Clark, T. B.; Parra, A.; Tortosa, M. "Copper-Catalyzed Enantioselective Synthesis of β-Boron β-Amino Esters" *Organic Letters* **2017**, *19*, 6272–6275.
- 15. Clark, T. B.; Emmerson, D. G.; Honsberger, J. "From the Research Lab to the Classroom: A Multi-Faceted High School Chemistry Outreach Program" from "Educational and Outreach Projects from the Cottrell Scholars Collaborative Professional Development and Outreach Volume 2" ACS Symposium Series, 2017, Vol. 1259, Ch. 6, 69–84.
- 14. *Marcum, J. S.; McGarry, K. A.; *Ferber, C. J.; Clark, T. B. "Synthesis of Biaryl Ethers by the Copper-Catalyzed Chan–Evans–Lam Etherification from Benzylic Amines Boronate Esters" *J. Org. Chem.* **2016**, *81*, 7963–7969.
- 13. Clark, T. B. "α-Hydroxyboronate Esters: Formation and Synthetic Applications" *Asian J. Org. Chem.* **2016**, *5*, 31–42.
- 12. McGarry, K. A.; *Duenas, A. A.; Clark, T. B. "Selective Formation of ortho-Aminobenzylamines by the Copper-Catalyzed Amination of Benzylamine Boronate Esters" *J. Org. Chem.* **2015**, *80*, 7193–7204.
- 11. Hale, L. V. A.; Emmerson, D. G.; [%]Ling, E. F.; Roering, A. J.; *Ringgold, M. A.; Clark, T. B. "An *ortho*-Directed C–H Borylation/Suzuki Coupling Sequence in the Formation of Biphenylbenzylic Amines" *Org. Chem. Frontiers.* **2015**, *2*, 661–664.
- 10. Hale, L. V. A.; McGarry, K. A.; *Ringgold, M. A.; Clark, T. B. "Role of Hemilabile Diamine Ligands in the Amine-Directed C–H Borylation of Arenes" *Organometallics* **2015**, *34*, 51–55.

- 9. *Moore, C. M.; *Medina, C. R.; *Cannamela, P. C.; *McIntosh, M. L.; *Ferber, C. J.; Roering, A. J.; Clark, T. B. "Facile Formation of β-Hydroxyboronate Esters by a Cu-Catalyzed Diboration/Matteson Homologation Sequence" *Org. Lett.* **2014**, *16*, 6056–6059.
- 8. *Guan, W.; *Michael, A. K.; *Koren-Selfridge, L.; *McIntosh, M. L.; *Scott, J. P.; Clark, T. B. "Stereoselective Formation of Trisubstituted Vinyl Boronate Esters by the Acid-Mediated Elimination of α-Hydroxyboronate Esters" *J. Org. Chem.* **2014**, *79*, 7199–7204.
- 7. Crawford, K. M.; *Ramseyer, T. R.; Daley, C. J. A.; Clark, T. B. "Phosphine-Directed C–H Borylation Reactions: Facile and Selective Access to Phosphine-Substituted Arylboronate Esters" *Angew. Chem., Int. Ed.* **2014**, *53*, 7589–7593.
- 6. Medina, C.; Carter, K. P.; Miller, M.; Clark, T. B.; O'Neil, G. W. "Stereocontrolled Synthesis of 1,3-Diols from Enones: Cooperative Lewis Base-Mediated Intramolecular Carbonyl Hydrosilylations" *J. Org. Chem.* **2013**, *78*, 9093–9101.
- 5. Roering, A. J.; *Hale, L. V. A.; *Squier, P. A.; *Ringgold, M. A.; *Butler, E. R.; Clark, T. B. "Iridium-Catalyzed, Substrate-Directed C–H Borylation Reactions of Benzylic Amines" *Org. Lett.* **2012**, *14*, 3558-3561.
- 4. *Query, I. P.; *Squier, P. A.; *Larson, E. M.; *Isley, N. A.; Clark, T. B. "Alkoxide-Catalyzed Reduction of Ketones with Pinacolborane" *J. Org. Chem.* **2011**, *76*, 6452–6456.
- 3. *Koren-Selfridge, L.; *Query, I. P.; *Hanson, J. A.; *Isley, N. A.; Guzei, I. A.; Clark, T. B. "Synthesis of Ruthenium Boryl Analogues of the Shvo Metal–Ligand Bifunctional Catalysts" *Organometallics* **2010**, *29*, 3896–3900.
- 2. McIntosh, M. L.; *Moore, C. M.; Clark, T. B. "Copper-Catalyzed Diboration of Ketones: Facile Synthesis of α-Hydroxyboronate Esters" *Org. Lett.* **2010**, *12*, 1996–1999.
- 1. *Koren-Selfridge, L.; *Londino, H. N.; *Vellucci, J. K.; *Simmons, B. J.; Casey, C. P.; Clark, T. B. "A Boron-Substituted Analogue of the Shvo Hydrogenation Catalyst: Catalytic Hydroboration of Aldehydes, Imine, and Ketones" *Organometallics* **2009**, *28*, 2085–2090.

Supervised Publications

- 5. Buchner, K. M.; Clark, T. B.; Loy, J. M. N.; Nguyen, T. X.; Woerpel, K. A. "Alkylidenesilacyclopropanes Derived from Allenes: Applications to the Selective Synthesis of Triols and Homoallylic Alcohols" *Org. Lett.* **2009**, *11*, 2173–2175.
- 4. Casey, C. P.; Clark, T. B.; Guzei, I. A. "Intramolecular Trapping of an Intermediate in the Reduction of Imines by a Hydroxycyclopentadienyl Ruthenium Hydride: Support for a Concerted Outer Sphere Mechanism" *J. Am. Chem. Soc.* **2007**, *129*, 11821–11827.
- 3. Clark, T. B.; Woerpel, K. A. "The Formation and Reactivity of Silacyclopropenes Derived from Siloxyalkynes: Stereoselective Formation of 1,2,4-Triols" *Org. Lett.* **2006**, *8*, 4109–4112.

- 2. Clark, T. B.; Woerpel, K. A. "Silver-Catalyzed Silacyclopropenation of 1-Heteroatom-Substituted Alkynes and Subsequent Rearrangement Reactions" *Organometallics* **2005**, *24*, 6212–6219.
- 1. Clark, T. B.; Woerpel, K. A. "Formation and Reactivity of Oxasilacyclopentenes Derived from Functionalized Alkynes" *J. Am. Chem. Soc.* **2004**, *126*, 9522-9523.

Contributed External Presentations

- (* indicates undergraduate student coauthor; # indicates M.S. student coauthor; % indicates high school student coauthor; presenter is **bold**)
- **T. A. Rich,* S. Kim**, M. W. Mouch,* A. H. Ziomek,* S. Khalil,* N. M. Zachariou,* R. S. Kim, E. A. Meck, D. A. Watson, T. B. Clark "Accessing biaryl bisphosphonates through oxidative homocoupling of *ortho*-borylated arylphosphonates" Presented at the ACS National Meeting, Denver, CO, August 2024.
- **E. Mendel**,* M. M. Warren,* H. N. Stuebe,* L. P. Pop,* K. Tran, A. Burtea, I. J. McAlpine, R. L. Patman, S. K. Nair, T. B. Clark "Homologation of ketones to aldehydes via *gem*-Diboronates" Presented at the ACS National Meeting, Denver, CO, August 2024.
- M. W. Mouch,* A. H. Ziomek,* T. A. Rich,* E. Meck, N. M. Zachariou,* S. Khalil,* M. R. Auth,* R. S. Kim, D. A. Watson, T. B. Clark "C-H Borylation and Oxidative Homocoupling of Aryl Phosphonates" Presented at the ACS National Meeting, San Francisco, CA, August 2023.
- J. T. Hemphill,* **S. J. Petty**,* J. D. Daniels,* M. McLellan,* S. C. Gaylor,* T. B. Clark "Synthesis of Arylphosphonates through Direct Coupling of Aryl Boronate Esters with Dialkyl Phosphites" Presented at the ACS National Meeting, San Francisco, CA, August 2023.
- **M. W. Mouch,*** N. M. Zachariou,* **T. A. Rich**,* M. R. Auth,* R. S. Kim, D. A. Watson, T. B. Clark "C-H Borylation and Oxidative Homocoupling of Aryl Phosphonates" Presented at the ACS National Organic Symposium, San Diego, CA, June 2022.
- **J. T. Hemphill**,* **S. J. Petty**,* **J. D. Daniels**,* S. C. Gaylor,* T. B. Clark "Direct C–P Cross Coupling of Aryl Boronate Esters with Dialkyl Phosphites" Presented at the ACS National Organic Symposium, San Diego, CA, June 2022.
- H. N. Stuebe,* **M. M. Warren**,* L. P. Pop,* C. Dempsey,* K. Tran, A. Burtea, I. McAlpine, R. Patman, S. K. Nair, T. B. Clark "Synthesis of Aldehydes from Heterocyclic *gem*-Diboronates" Presented at the ACS National Organic Symposium, San Diego, CA, June 2022.
- **O. O. Idowu**, M. E. Balderas,* **C. Mauhay**,* T. Trelles, E. C. Learn, R. S. Kim, D. A. Watson, T. B. Clark "Nitro-Directed C–H Borylation of Arenes" Presented at the ACS National Organic Symposium, San Diego, CA, June 2022.

- **T. B. Clark**, N. M. Zachariou,* M. W. Mouch,* K. B. Morris,* R. S. Kim, F. Xu, D. A. Watson, "C-H Borylation and Oxidative Homocoupling of Aryl Phosphonates" Presented at the ACS National Meeting, San Diego, CA, March 2022.
- **N. M. Zachariou**,* **M. W. Mouch**,* M. R. Auth,* R. S. Kim, D. A. Watson, T. B. Clark "C-H Borylation and Oxidative Homocoupling of Aryl Phosphonates" Presented at the ACS National Meeting, San Diego, CA, March 2022.
- **M. E. Balderas**,* E. C. Learn, R. S. Kim, O. O. Idowu, D. A. Watson, T. B. Clark "Nitro-Directed C–H Borylation of Arenes" Presented at the ACS National Meeting, San Diego, CA, March 2022.
- **S. C. Gaylor,* J. T. Hemphill,*** T. B. Clark "Direct C–P Cross Coupling of Aryl Boronate Esters with Dialkyl Phosphites" Presented at the ACS National Meeting, San Diego, CA, March 2022.
- **T. B. Clark** "Homologation Reactions of α -Silyloxyboronate Esters: Synthesis of β-Hydroxylallylboronate Esters and 2-Boro-1,3-Diols" Presented at Pacifichem 2021, Honolulu, HI (remote), December 2021; Symposium 372.
- **T. B. Clark** "Phosphorus-Directed C-H Borylation" Presented at Pacifichem 2021, Honolulu, HI (remote), December 2021; Symposium 371.
- **N. Le**, N. Chuang, C. Oliver,* A. Samoshin, K. B. Morris,* S. Hyland,* H. Guan, T. B. Clark, C. E. Webster "Mechanistic Investigations into the Benzylic Amine-Directed C-H Borylation with Iridium" Presented at Southeast Regional Meeting of the ACS, Birmingham, AL, November, 2021.
- **K. C. Morris**,* S. E. Wright,* H. Eichelberger, S. Richardson-Solorzano,* T. B. Clark, "Ambiphilic Phosphine Boronates by C(sp²)–H and C(sp³)–H Borylation of a Diverse Class of Tertiary Phosphines" Presented at the 258th ACS National Meeting, San Diego, CA, August 2019; INOR-0079.
- **T. B. Clark**, S. E. Wright,* S. Richardson-Solorzano,* K. C. Morris,* W. Schumacher, T. N. Stewart, "Accessing Ambiphilic Phosphine Boronates by Phosphine-Directed C–H Borylation" Presented at the 258th ACS National Meeting, San Diego, CA, August 2019; INOR-0438.
- **A. Samoshin**, G. Meyer,* M. Nistler,* A. M. DePaul,* T. B. Clark, G. W. O'Neil, "Development of novel methods for homologation of protected α -oxyboronate esters" Presented at the 257th ACS National Meeting, Orlando, FL, April 2019; ORGN-0228.
- **K. C. Morris**,* **S. Richardson-Solorzano**,* S. E. Wright,* T. N. Stewart, J. Wilson,* C. D. Miller,* T. B. Clark, "Accessing phosphine boronates by C(sp2)-H and C(sp3)-H borylation using a cationic iridium complex" Presented at the 257th ACS National Meeting, Orlando, FL, April 2019; INOR-0332.

- **M. Nistler**,* **G. Meyer**,* **A. M. DePaul**,* A. V. Samoshin, T. Thane,* C. J. Ferber,* G. W. O'Neil, T. B. Clark, "Accessing functionalized beta-hydroxyboronate esters via a diboration /homologation sequence with aldehydes" Presented at the 257th ACS National Meeting, Orlando, FL, April 2019; poster ORGN-0140.
- **W. Schumacher**, **T. N. Stewart**, S. E. Wright,* S. Richardson-Solorzano,* K. C. Morris,* T. B. Clark, "Accessing chiral ambiphilic phosphine boronates by directed C-H borylation reactions" Presented at the 257th ACS National Meeting, Orlando, FL, April 2019; poster INOR-0252.
- **N. Chuang**,* A. Samoshin, C. Oliver,* S. N. Hyland,* H. Guan, T. B. Clark, "Mechanistic studies of the iridium-catalyzed ortho C-H borylation of benzylic amines" Presented at the 257th ACS National Meeting, Orlando, FL, April 2019; poster INOR-0337.
- **T. B. Clark**, S. E. Wright,* S. Richardson-Solorzano,* T. N. Stewart, W. Schumacher, K. C. Morris,* "Phosphine-directed C-H borylation: accessing ambiphilic phosphine boronates" Presented at the 257th ACS National Meeting, Orlando, FL, April 2019; INOR-0086.
- C. Oliver,* **A. Samoshin**, K. A. McGarry, H. Guan, T. B. Clark, "Mechanistic studies of the iridium-catalyzed ortho C-H borylation of benzylic amines" Presented at the 254th ACS National Meeting, Washington, D.C., August 2017; poster INOR 226.
- **T. B. Clark**, K. A. McGarry, J. S. Marcum, V. Tena Pérez, C. J. Ferber, "Chan-Evans-Lam amination and etherification directly from organoboronate esters" Presented at the 254th ACS National Meeting, Washington, D.C., August 2017; poster ORGN 494.
- **T. Thane,* M. A. Nistler,*** C. J. Ferber,* A. A. Ogtong,* T. B. Clark, "Accessing highly substituted and functionalized beta-hydroxyboronate esters via diboration and homologation of aldehydes" Presented at the 254th ACS National Meeting, Washington, D.C., August 2017; poster ORGN 586.
- *Also selected to be presented at the Sci-Mix Poster Session*
- **S. N. Hyland,*** M. Tortosa, T. B. Clark, "Amide-directed alkane C-H borylation reactions" Presented at the 254th ACS National Meeting, Washington, D.C., August 2017; poster ORGN 140.
- *Also selected to be presented at the Sci-Mix Poster Session*
- S. Wright,* S. Richardson-Solorzano, E. Albitz, C. Miller, T. B. Clark, "Phosphine-Directed C-H Borylation Reactions: New Catalyst Development and Synthetic Utility" Presented at the 254th ACS National Meeting, Washington, D.C., August 2017; poster INOR 227.
- **D. Emmerson, T. B. Clark** "From Research Lab to Classroom: A Multi-Faceted High School Outreach Program" Presented at the 251st ACS National Meeting, San Diego, CA, March 2016; poster CHED 65.
- **E. Albitz**,* N. Huynh,* T. B. Clark "Sterically-Controlled C-H Borylation of Aryl Phosphines" Presented at the 251st ACS National Meeting, San Diego, CA, March 2016; INOR 951.

- **C. Oliver**,* K. A. McGarry, T. B. Clark "Studies Toward the Mechanism of Amine-Directed, Iridium-Catalyzed C-H Borylation of *N*,*N*-Dimethylbenzylamines" Presented at the 251st ACS National Meeting, San Diego, CA, March 2016; INOR 953.
- **J. Marcum**,* **C. F. Ferber**,* K. A. McGarry, T. B. Clark "Synthesis of Biaryl Ethers from Benzylic Amine Boronate Esters by the Copper-Catalyzed Chan-Evans-Lam Etherification" Presented at the 251st ACS National Meeting, San Diego, CA, March 2016; ORGN 494.
- **T. Thane**,* T. B. Clark "β-Borylation and β-Silylation of Enals Toward a Method to Access Trisubstituted Vinyl Boronate Esters and Vinyl Silanes" Presented at the 251st ACS National Meeting, San Diego, CA, March 2016; ORGN 493.
- **T. B. Clark**, K. M. Crawford, N. Huynh,* S. Wright,* T. R. Ramseyer,* "Phosphine-Directed C-H Borylation of Arenes: Synthesis and Utility of Phosphine Boronate Esters" Presented at the 250th ACS National Meeting, Boston, MA, August 2015; INOR 675.
- **C. J. Ferber**,* C. M. Moore,* C. R. Medina,* P. C. Cannamela,* T. B. Clark, "Conversion of Aldehydes to β-Hydroxyboronate Esters by Diboration/Homologation Sequences" Presented at the 250th ACS National Meeting, Boston, MA, August 2015; poster ORGN 777.
- **K. A. McGarry,** A. A. Duenas,* T. B. Clark, "Copper-Catalyzed Coupling of N,N-Dimethylaminobenzyl Boronate Esters with Amines" Presented at the 250th ACS National Meeting, Boston, MA, August 2015; poster ORG 678.
- **S. Wright,*** K. M. Crawford, N. Huynh,* T. R. Ramseyer,* E. Albitz,* T. B. Clark, "Ambiphilic Phosphine Boronate Esters by the Iridium-Catalyzed C-H Borylation of Phosphines" Presented at the 250th ACS National Meeting, Boston, MA, August 2015; poster INOR 568.
- **K. A. McGarry,** A. A. Duenas,* T. B. Clark, "N,N-Dimethylaminobenzyl Boronate Esters Functionalization into Diamines" Presented at the 250th ACS National Meeting, Boston, MA, August 2015; poster AEI 75.
- **N. Huynh,* K. M. Crawford**, **T. R. Ramseyer,*** T. B. Clark, "Synthesis of Ambiphilic Phosphine Boronate Esters through Arene C–H Borylation" Presented at the 248th ACS National Meeting, San Francisco, CA, August 2014; poster INOR 767.
- *Also selected to be presented at the Sci-Mix Poster Session*
- **K. A. McGarry, A. McGee,*** **A. A. Duenas,*** T. B. Clark, "Functionalization of N,N-Dimethylaminobenzyl Boronate Esters into Amines and Boronic Acids" Presented at the 248th ACS National Meeting, San Francisco, CA, August 2014; poster ORG 694.
- **T. B. Clark**, A. J. Roering, L. V. A. Hale,* M. A. Ringgold,* K. M. Crawford, T. R. Ramseyer* "Substrate-Directed *ortho*-C–H Borylation of Substituted Arenes" Presented at the 246th ACS National Meeting; Young Academic Investigators Award Symposium, Indianapolis, IN, September 2013; ORGN 151.

- **K. M. Crawford**, **T. R. Ramseyer**,* T. B. Clark, "Phosphine-Directed C–H Borylation of Arenes" Presented at the 246th ACS National Meeting, Indianapolis, IN, September 2013; poster INOR 423.
- *Also selected to be presented at the Sci-Mix Poster Session*
- **M. A. Ringgold**,* L. V. A. Hale,* A. J. Roering, T. B. Clark, "Amine-Directed Arene C-H Borylation Reactions: Catalyst Study and Development" Presented at the 246th ACS National Meeting, Indianapolis, IN, September 2013; poster INOR 422.
- *Also selected to be presented at the Sci-Mix Poster Session*
- **P. C. Cannamela**,* **A. J. Roering**, C. M. Moore,* C. R. Medina,* M. L. McIntosh,[#] T. B. Clark, "Copper-catalyzed Diboration/Homologation of Aldehydes: Facile Synthesis of β-Hydroxyboronate Esters" Presented at the 246th ACS National Meeting, Indianapolis, IN, September 2013; poster ORGN 139.
- **W. Guan,*** A. K. Michael,* L. Koren-Selfridge,* M. L. McIntosh, T. B. Clark, "Diboration/Elimination of Ketones: Facile Synthesis of 1,1- and Tri-Substituted Vinyl Boronate" Presented at the 246th ACS National Meeting, Indianapolis, IN, September 2013; poster ORGN 386.
- **P. C. Cannamela**,* **A. J. Roering**, C. M. Moore,* C. R. Medina,* M. L. McIntosh,[#] T. B. Clark, "Copper-catalyzed Diboration/Homologation of Aldehydes: Facile Synthesis of β-Hydroxyboronate Esters" Presented at the 43rd National Organic Symposium, Seattle, WA, June 2013; poster M-30.
- **W. Guan,*** A. K. Michael,* L. Koren-Selfridge,* M. L. McIntosh,[#] T. B. Clark, "Diboration/Elimination of Ketones: Facile Synthesis of 1,1- and Tri-Substituted Vinyl Boronate" Presented at the 43rd National Organic Symposium, Seattle, WA, June 2013; poster M-29.
- **M. A. Ringgold**,* **A. J. Roering**, L. V. A. Hale,* T. B. Clark, "Iridium-Catalyzed C–H Borylation of Benzylic Amines: Ligand Development and Reaction Scope" Presented at the 43rd National Organic Symposium, Seattle, WA, June 2013; poster T-63.
- **C. R. Medina**, T. B. Clark, G. W. O'Neil, "Diastereoselective Intramolecular Carbonyl Hydrosilylations for Complex Polyketide Synthesis" Presented at the 43rd National Organic Symposium, Seattle, WA, June 2013; poster M-21.
- **K. M. Crawford**, **T. R. Ramseyer**,* C. J. A. Daley, R. N. Dutnall, T. B. Clark, "Phosphine-Directed C–H Borylation of Arenes" Presented at the 43rd National Organic Symposium, Seattle, WA, June 2013; poster T-64.
- **T. B. Clark**, "Substrate-Directed *ortho*-C–H Borylation of Benzylic Amines" Presented at the Organometallics Gordon Research Conference, Newport, RI, July 2012; poster.

- **P. C. Cannamela**, * C. M. Moore, * C. R. Medina, * T. B. Clark, "Selective Formation of β-Hydroxyboronate Esters Through an Aldehyde Diboration/Matteson Homologation Sequence" Presented at the 243rd ACS National Meeting, San Diego, CA, March 2012; poster ORGN 885.
- **L. V. A. Hale**,* **M. A. Ringgold**,* A. J. Roering, P. A. Squier,* J. M. Capaldi,* E. R. Butler,* T. B. Clark, Iridium-Catalyzed C–H Borylation of Benzylic Amines: Reaction Development and Substrate Scope. Presented at the 243rd ACS National Meeting, San Diego, CA, March 2012; poster INOR 885.
- *Also selected to be presented at the Sci-Mix Poster Session*
- **A. J. Roering**, L. V. A. Hale, P. A. Squier, M. A. Ringgold, E. R. Butler, T. B. Clark, "Substrate-Directed *ortho*-C–H Borylation of Benzylic Amines" Presented at the 243rd ACS National Meeting, San Diego, CA, March 2012; paper INOR 559.
- **T. B. Clark**, C. M. Moore, * C. R. Medina, * P. C. Cannamela, "Direct Matteson Homologation of Aldehyde Diboration Products: Facile Synthesis of β-Hydroxyboronate Esters" Presented at the 243rd ACS National Meeting, San Diego, CA, March 2012; paper ORGN 493.
- **C. R. Medina**, * C. M. Moore, * M. L. McIntosh, * T. B. Clark, "Copper-Catalyzed Diboration of Carbonyl Compounds: Facile Synthesis of α-Hydroxyboronate Esters" Presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry and Chemical Biology in Corvallis, OR, August 2011.
- **L. V. A. Hale**,* P. A. Squier,* E. R. Butler,* T. B. Clark, "Substrate-Directed *ortho*-C–H Borylation of Benzylic Amines" Presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry and Chemical Biology in Corvallis, OR, August 2011.
- **J. P. Scott**,* A. K. Michael,* C. M. Moore,* M. L. McIntosh,* T. B. Clark, "Copper-Catalyzed Diboration of Carbonyl Compounds: Facile Synthesis of Vinyl Boronate Esters" Poster presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry and Chemical Biology in Corvallis, OR, August 2011; Poster 6. *Awarded Best Poster at Conference*
- **C. R. Medina**,* A. K. Michael,* **J. P. Scott**,* C. M. Moore,* T. B. Clark, "Developing the Synthetic Utility of the Copper-Catalyzed Diboration of Carbonyls" Presented at the 241st ACS National Meeting, Anaheim, CA, March 2011; poster ORGN 813.
- **I. P. Query,** * **P. A. Squier,** * E. M. Larson, * N. A. Isley, * T. B. Clark, "Alkoxide-Catalyzed Hydroboration of Ketones" Presented at the 241st ACS National Meeting, Anaheim, CA, March 2011; poster ORGN 806.
- **T. B. Clark**, I. P. Query,* P. A. Squier* L. V. Hale,* "Design and Development of Boron-Substituted Metal-Ligand Bifunctional Catalysts" Presented at the 241st ACS National Meeting; ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry: Symposium in Honor of Charles P. Casey. Anaheim, CA, March 2011; paper INOR 9.

- **I. P. Query**,* P. A. Squier,* E. M. Larson,% N. A. Isley,* T. B. Clark, "Boron-Substituted Analogues of Hydrogenation Catalysts: Applications in Asymmetric Hydroboration of Ketones" Presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry in Pullman, WA, September 2010.
- **A. K. Michael**,* T. B. Clark, "Facile Synthesis of Di-substituted and Tri-substituted Vinyl Boronate Esters from Ketones" Presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry in Pullman, WA, September 2010.
- **T. B. Clark**, "Boron-Substituted Analogues of Ligand-Metal Bifunctional Hydrogenation Catalysts: Synthesis and Reactivity" Presented at the Organometallics Gordon Research Conference, Newport, RI, July 2010; poster.
- M. L. McIntosh, *C. M. Moore, *A. K. Michael, *J. P. Scott, *T. B. Clark, "Copper-Catalyzed Diboration of Carbonyls: Facile Synthesis of α-Hydroxyboronate Esters" Presented at the 239th ACS National Meeting, San Francisco, CA, March 2010; poster ORGN 1125. *Also selected to be presented at the Sci-Mix Poster Session*
- J. A. Hanson,* **N. A. Isley**,* L. Koren-Selfridge,* I. P. Query,* T. B. Clark, "Boron-Substituted Analogues of Ligand-Metal Bifunctional Hydrogenation Catalysts: Applications in Directed C—H Borylation" Presented at the 239th ACS National Meeting, San Francisco, CA, March 2010; poster INOR 496.
- *Also selected to be presented at the Sci-Mix Poster Session*
- **T. B. Clark**, M. L. McIntosh, *C. M. Moore, *A. K. Michael, *J. P. Scott, *Developing the synthetic utility of the copper-catalyzed diboration of carbonyl compounds" Presented at the 239th ACS National Meeting, San Francisco, CA, March 2010; paper ORGN 923.
- **C. M. Moore**,* M. L. McIntosh,* T. B. Clark, "Developing the synthetic utility of the copper-catalyzed diboration of carbonyl compounds" Presented at the Murdock College Science Research Conference in Spokane, WA, October 2009.
- **C. M. Moore**,* M. L. McIntosh,* T. B. Clark, "Copper-catalyzed diboration of ketones: Facile synthesis of tertiary alpha-hydroxy boronate esters" Presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry in Corvallis, OR, August 2009.
- **J. A. Hanson**,* L. Koren-Selfridge,* T. B. Clark, "Boron-substituted analogs of the Shvo hydrogenation catalyst: Applications in directed C–H Borylation" Presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry in Corvallis, OR, August 2009.
- M. L. McIntosh,[#] C. M. Moore,^{*} T. B. Clark, "Copper-Catalyzed Diboration of Ketones: Facile Synthesis of Tertiary α-Hydroxy Boronate Esters" Presented at the 64th Northwest Regional Meeting of the American Chemical Society, Tacoma, WA, June 2009; paper NW-158.

- **L. Koren-Selfridge**,* **J. A. Hanson**,* T. B. Clark, "Boron-substituted analogs of the Shvo hydrogenation catalyst: Applications in directed C–H Borylation" Presented at the 64th Northwest Regional Meeting of the American Chemical Society, Tacoma, WA, June 2009; paper NW-157.
- **T. B. Clark**, H. N. Londino, J. K. Vellucci, L. Koren-Selfridge, C. P. Casey, "Synthesis and reactivity of boron-substituted analogs of the Shvo hydrogenation catalyst" Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper INOR 299.
- **H. N. Londino**,* J. K. Vellucci,* L. Koren-Selfridge,* C. P. Casey, T. B. Clark, "Boron-substituted analogs of the Shvo hydrogenation catalyst: Applications in the hydroboration of aldehydes and imines" Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; poster INOR 538.
- **M. L. McIntosh**, *C. M. Moore, *T. B. Clark, "Copper-catalyzed diboration of ketones: Facile synthesis of tertiary alpha-hydroxy boronate esters" Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; poster ORGN 492.
- **J. K. Vellucci**,* H. N. Londino,* L. Koren-Selfridge,* C. P. Casey, T. B. Clark, "Boron-substituted analogs of the Shvo hydrogenation catalyst: Applications in the hydroboration of aldehydes and imines" Presented at the Murdock College Science Research Conference in Tacoma, WA, November 2008.
- **J. K. Vellucci**,* H. N. Londino,* L. Koren-Selfridge,* C. P. Casey, T. B. Clark, "Boron-substituted analogs of the Shvo hydrogenation catalyst: Applications in the hydroboration of aldehydes and imines" Presented at the Pacific Northwest Undergraduate Research Symposium on Organic Chemistry in Corvallis, OR, August 2008.
- C. P. Casey, **T. B. Clark**, "Directed C-H functionalization with ruthenium boron analogs of the Shvo hydrogenation catalyst" Presented at the 233rd ACS National Meeting, Chicago, IL, March 2007; paper INOR-55.
- **T. B. Clark**, K. A. Woerpel, "Formation and Utility of Oxasilacyclopentenes Derived from Functionalized Alkynes" Presented at the 229th ACS National Meeting, San Diego, CA, March 2005; paper ORGN-689.
- S. A. Calad, J. Cirakovic, T. В. Clark, T. G. Driver, and K. A. Woerpel, Metal-Catalyzed **Synthesis** and Reactions of Silacyclopropanes: New Reactions and Stereoselective Methods for Organic Synthesis, Presented at the James Flack Norris Award Symposium for Professor Robert G. Bergman, 225th National Meeting of the American Chemical Society, New Orleans, LA, March 2003; paper ORGN-1.
- **T. B. Clark**, P. S. Traylor, T. J. Dwyer, "Determination of the Mechanism of Quinoxaline Formation" Presented at the 221st ACS National Meeting, San Diego, CA, April 2001; poster CHED-198.

T. B. Clark, J. MacKay, E. J. Vedejs, "Intramolecular Baylis-Hillman Cyclization: Synthesis and Reaction Methodology" Presented at the 16th Biennial Conference on Chemical Education, Ann Arbor, MI, August 2000; poster.

Invited Presentations

- "Accessing Functionalized Phosphines and Phosphonates through C-H Borylation" Colorado State University, September 30, 2024, Fort Collins, Colorado
- "Accessing Functionalized Phosphines and Phosphonates through C-H Borylation" University of California, Riverside, May 10, 2024, Riverside, California
- "Amine and Phosphorus-Directed C-H Borylation" University of Dallas, January 24, 2022, Irving, Texas
- "Amine and Phosphorus-Directed C–H Borylation" Benedictine College, January 21, 2022, Atchison, Kansas
- "Metal-Catalyzed Borylation Reactions in Synthesis" Pfizer, Inc. October 4, 2019, La Jolla, California.
- "Accessing Ambiphilic Phosphine Boronates by Phosphine-Directed C–H Borylation" University of California, Merced, April 12, 2019, Merced, California.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" Lehman College, CUNY, October 29, 2018, New York, New York.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" New York University, October 25, 2018, New York, New York.
- "Copper- and Iridium-Catalyzed Borylation Reactions" Western Washington University, August 15, 2018, Bellingham, WA.
- "There and Back Again: An Alum's Tale" University of San Diego College of Arts and Sciences 5 x 5 Presentation, October 12, 2017, San Diego, CA.
- "Amine- and Phosphine-Directed C–H Borylation: From Catalyst Development to Synthetic Utility" University of Delaware, August 24, 2017, Newark, DE.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" University of California, San Diego, February 27, 2017, San Diego, CA.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" Universidad Autónoma De Madrid, January 13, 2017, Madrid, Spain.

- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" Universite Paul Sabatier, December 21, 2016, Toulouse, France.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" Universidad D Sevilla, December 14, 2016, Sevilla, Spain.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" Speaker at *New Perspectives in Asymmetric and Organometallic Synthesis*, 7th Edition, October 28, 2016, Valencia, Spain.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" Universitat Rovira i Virgili, October 14, 2016, Tarragona, Spain.
- "Iridium-Catalyzed C–H Borylation: from Catalysis to Synthesis" Speaker at *Symposium on Organic Synthesis and Catalysis*, University of San Diego, May 6, 2016, San Diego, CA.
- "Amine- and Phosphine-Directed C–H Borylation: Accessing Bifunctional Aryl Boronate Esters" University of Michigan, February 18, 2016, Ann Arbor, MI.
- "Amine- and Phosphine-Directed C–H Borylation of Arenes" University of California, Santa Barbara, May 20, 2015, Santa Barbara, CA.
- "Amine- and Phosphine-Directed C–H Borylation: from Glucose Sensors to Organocatalysts" Division of Organic Chemistry Graduate Research Symposium Keynote Speaker, July 27, 2014, Irvine, CA.
- "Sex, Drugs, and Rock n' Roll: A Chemist's View of your Medicine Cabinet" University of San Diego College of Arts and Sciences 5 x 5 Presentation, February 27, 2014, San Diego, CA.
- "Substrate-Directed C-H Borylation of Substituted Arenes" San Diego State University, January 24, 2014, San Diego, CA.
- "Substrate-Directed C-H Borylation of Substituted Arenes" University of California, Irvine, January 15, 2014, Irvine, CA.
- "Substrate-Directed C-H Borylation of Substituted Arenes" Harvey Mudd College, November 12, 2013, Claremont, CA.
- "Substrate-Directed C-H Borylation of Substituted Arenes" West Virginia University, March 27, 2013, Morgantown, WV.
- "Substrate-Directed C–H Borylation of Substituted Arenes" Franciscan University of Steubenville, March 26, 2013, Steubenville, OH.
- "Substrate-Directed C-H Borylation of Substituted Arenes" California State University, Fullerton, February 7, 2013, Fullerton, CA.

- "Substrate-Directed C-H Borylation of Substituted Arenes" North Carolina State University, January 23, 2013, Raleigh, NC.
- "Substrate-Directed C–H Borylation of Substituted Arenes" University of North Carolina, January 22, 2013, Chapel Hill, NC.
- "Iridium-Catalyzed, Ortho-Selective C–H Borylation Reactions of Benzylic Amines" University of Southern California, August 29, 2012, Los Angeles, CA.
- "Ortho Selective Iridium-Catalyzed C–H Borylation Reactions" Point Loma Nazarene University, March 16, 2012, San Diego, CA.
- "Copper-Catalyzed Diboration of Carbonyl Compounds: Developing the Synthetic Utility of α -Hydroxy Boronate Esters" University of Wisconsin–Madison, September 10, 2010, Madison, WI.
- "Copper-Catalyzed Diboration of Carbonyl Compounds: Developing the Synthetic Utility of α -Hydroxy Boronate Esters" University of Illinois at Chicago, September 9, 2010, Chicago, IL.
- "Metal-mediated borylation reactions and their applications in synthetic organic chemistry," University of San Diego, September 17, 2009, San Diego, CA.
- "Metal-mediated borylation reactions and their applications in synthetic organic chemistry," San Diego State University, September 11, 2009, San Diego, CA.
- "Copper-Catalyzed Diboration of Carbonyl Compounds: Developing the Synthetic Utility of alpha-Heteroatom-Substituted Boronate Esters" University of Nevada, Reno REU Minisymposium, August 12, 2009, Reno, NV.
- "Formation and Synthetic Utility of Silacyclopropenes and Oxasilacyclopentenes," University of San Diego, March 23, 2006, San Diego, CA.

Professional and Community Service

Journal Peer Reviewer

Journal of the American Chemical Society, Organometallics, Chemistry Reviews, Organic Letters, Journal of Organic Chemistry, Comments on Inorganic Chemistry, Tetrahedron Letters, Chemistry-A European Journal, Advanced Synthesis and Catalysis, Molecules, Angewandte Chemie, International Edition, Chemical Science, SynLett, ACS Symposium Series, ChemCatChem, European Journal of Organic Chemistry, Nature Communications, Science Advances, Polyhedron, Asian Journal of Chemistry, Bulletin of the Chemical Society of Japan, European Journal of Organic Chemistry, ACS Omega

Ad-Hoc Grant Reviewer

American Chemical Society-Petroleum Research Fund, Research Corporation for Science Advancement, National Science Foundation, Murdock Charitable Trust, Natural Sciences and Engineering Research Council of Canada

National Science Foundation Grant Panelist

Winter 2021, Winter 2023

Beckman Young Investigators Proposal Panelist

Fall 2018, Winter 2019, Fall 2020, Winter 2021

Subject Matter Expert for Chemical Abstract Services

Prepared problem sets for pilot project for on-line homework utilizing Scifinder and literature. Winter 2016

Coordinator of Summer Research Symposium at USD

July 2018

Coordinator of Symposium on Organic Synthesis at USD

May 2016, May 2017

External Reviewer for Tenure and Promotion

April 2017, December 2019, February 2023, August 2024, December 2024

External Faculty Thesis Member

September 2017, October 2018 (Scripps Research Institute), December 2018 (Rutgers University)

Textbook Chapter Reviewer

Organic Chemistry by David Klein, 1st Edition

Reviewed chapter 20 in preparation of new text edition

Textbook Chapter Reviewer

Organic Chemistry by Maitland Jones, Jr., 4th Edition, Chapters 10–23

Reviewed and edited chapters of new text edition

Prescriptive Textbook Reviewer

Organic Chemistry by L. G. Wade, Jr., 7th Edition

Provided detailed feedback on textbook for next edition

Panelist for Chemistry Careers at Division of Organic Chemistry Graduate Research

Symposium in Irvine, CA

Summer 2014

Outreach to High School and Community College Science Students

Coordinated tour of BD Diagnostics with La Costa Canyon High School (La Costa, CA) students. Spring 2014, Spring 2015

Coordinated tour of Illumina with La Costa Canyon High School (La Costa, CA) students. Spring 2016, Spring 2017

Building tour of USD's Shiley Center for Science and Technology and discussion leader on careers in chemistry for high school students from La Costa Canyon High School (La Costa, CA). Spring 2012, Winter 2014, Spring 2016, Spring 2017

Building tour of USD's Shiley Center for Science and Technology for Miramar Community College students. Spring 2012, Spring 2013

Service at the University of San Diego

Department of Chemistry and Biochemistry

Associate Chair

Fall 2022-2024

Student Award Committee

Fall 2022-present

Department Transfer Advisor

Spring 2014–Summer 2021

Co-Coordinator of Department Summer Research Symposium

Summer 2018, Summer 2023

Ad-Hoc Committee on Building Space

2022-2023

Staff Search Committee

Summer 2015: Search for an EA2 budget analyst.

Summer 2017: Search for an EA2 budget analyst.

Winter 2021: Search for Organic Lab Tech 1.

Ad-Hoc Committee to Update Department Website

Spring 2016

Faculty Search Committee

Fall 2012: Search for a senior level biochemistry faculty member. Search resulted in successful hiring of Joseph Provost.

Ad-Hoc Committee for Revisions to the Upper Division Curriculum

Summer 2013, Summer 2014

Department of Chemistry and Biochemistry Fundraising Committee

2011–2012: Planned departmental summer fundraising event

<u>Jean Dreyfus Boissevain Lectureship for Undergraduate Institutions Planning Committee</u>
Coordinate public seminar with outside speaker, interface with community college faculty, and organize reception dinner with community college faculty and students

College of Arts and Sciences

College of Arts and Sciences Transfer Advising Team

January 2022, Summer 2022, January 2023, Summer 2023, January 2024

College of Arts and Sciences Academic Assembly Budget Committee

2014–2015, 2019–2020 (chair), 2020–2021

Adjunct Implementation Team

Committee implementing suggested changes to adjunct policies in CAS 2015–2016, 2016–2017, 2017–2018, 2018–2019

External Mentor for Junior Faculty Member in Department of Philosophy

Spring 2015–2020

External Mentor for Junior Faculty Member in Department of Psychological Sciences

Summer 2015–2019

Panelist for CEE: The ABC's of the FRG

Fall 2015

Panelist for CAS: ARRT Demystified: Presenting a Balanced Portfolio

Fall 2015

Special Assistant to the Dean, Co-Chair of Deans Advisory Council on Contingent/Adjunct

Faculty

2014-2015

College of Arts and Sciences Faculty Research Grant Committee

2012–2013, 2013–2014, 2014–2015, 2015–2016

Panelist for Junior Faculty on NSF CAREER Award

Spring 2014

University

Faculty Advisory Board Office of Undergraduate Research

2023-2024

University Research Council

2022-2023

University Senate

2019-2021

Senate Ad-Hoc Committee on Non-Tenure Track Faculty Policies

Spring 2020

Senate Ad-Hoc Committee on Transfer of Credit Policy

2020

Adjunct Faculty Committee

2016-2017

Spiritual Guide for University Ministry Lenten Retreat

Spring 2015, Spring 2016, Spring 2017

Discussion Leader for CCTC: Catholic News Round-Up

Spring 2015, Fall 2015

Beckman Foundation Grant Faculty Committee

Determine protocols for grant administration and select from student applicants

2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018

National Science Foundation Research Experience for Undergraduates Grant Faculty Committee

Determine protocols for grant administration and select from student applicants 2014–2015, 2015–2016, 2016–2017

Health Sciences Student Evaluation Committee

Spring 2013, 2014

Living Learning Community Committee

2013-2014, 2014-2015, 2015-2016

Associated Student Research Grant Reviewer

Spring 2014

University Ministry Life Week Photo Contest Judge

Spring 2014

Panelist for CEE Session Regarding Catholic Professors at Catholic Institutions: Promise and

Predicament

Fall 2014

Living Learning Community Summit

September 2012: participant

Pre-Undergraduate Research Experience Co-Coordinator

Read applications, conducted interviews, and matched underprivileged incoming freshman students with faculty mentors. Summer 2013

Catholic Identity and the Core Curriculum: A Faculty Colloquium

September 2012: participant in full-day colloquium