

Sean T. Roberts

University of Texas at Austin ▪ Department of Chemistry
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Education

Massachusetts Institute of Technology (Cambridge, MA)

Ph.D. in Physical Chemistry, Completed December 2009 (g.p.a. 5.0/5.0)

Thesis: Hydrogen Bond Rearrangements and the Motion of Charge Defects in Water Viewed using Multidimensional Ultrafast Infrared Spectroscopy.

Advisor: Andrei Tokmakoff

University of California Los Angeles (Los Angeles, CA)

B.S. in Chemistry, Physical Chemistry Concentration, Completed May 2003

g.p.a. 3.954/4.0, Highest Departmental Honors, Summa Cum Laude

Employment & Research History

Assistant Professor of Chemistry (January 2014 – Present)

University of Texas at Austin, Department of Chemistry

Research Group website: www.robertslab.utexas.edu

Postdoctoral Research Associate (January 2010 – November 2013)

University of Southern California Department of Chemistry

Advisors: Stephen Bradforth & Alexander Benderskii

Doctoral Candidate (August 2003 – December 2009)

Massachusetts Institute of Technology Department of Chemistry

Advisor: Andrei Tokmakoff

Undergraduate Researcher (August 2001 – July 2003)

University of California Los Angeles Department of Chemistry

Advisor: Benjamin Schwartz

Research Funding & Awards

National Science Foundation CAREER Award: CSDM-A (\$550,000: 2017-2022)

National Science Foundation: CHE-MSN (\$437,351: 2016-2018)

Air Force Office of Scientific Research: RTE (\$100,000: 2015-2016)

Welch Foundation Research Award (\$195,000: 2015-2018)

ACS Petroleum Research Fund Doctoral New Investigator Award (\$110,000: 2015-2017)

UT Austin Faculty Research Grant (\$6000: 2015-2016)

ACS Collaborative Opportunities Grant (\$5000: 2016-2017)

Rom Rhone Professional Development Award (2016)

Natural Sciences Foundation Advisory Council Teaching Award (2014)

Postdoctoral Awards:

Adamson Postdoctoral Research Award (2012)

Burg Postdoctoral Teaching Fellowship (2012)

American Chemical Society Postdoctoral Research Award (2011)

NSF American Competitiveness in Chemistry Postdoctoral Fellowship (ACC-F) (\$200,000: 2009-2011)

Graduate Awards:

Coblentz Society Student Award (2009)

FACSS Student Poster Award (2009)

Morse Travel Grant (2008)

Massachusetts Institute of Technology Presidential Fellowship (2003-2004)

Undergraduate Awards:*Phi Beta Kappa Graduate Fellowship (2003)**Ramsey Award (2003)**Arnold O. Beckman Undergraduate Research Fellowship (2002-2003)**University of California Los Angeles Summer Research Scholarship (2002)***Courses Taught**

Course Taught	Course Title	Enrollment	Instructor Rating (Course Rating)	% of Enrolled Students Responding
CH354 (Spring 2017)	Quantum Mechanics & Molecular Spectroscopy	39	NA	NA
CH354L (Fall 2016)	Physical Chemistry II: Quantum Mechanics	60	4.6 (4.0)	80%
CH353 (Spring 2016)	Physical Chemistry I: Thermodynamics & Kinetics	81	4.8 (4.5)	84%
CH353M (Fall 2015)	Physical Chemistry I: Thermodynamics for Life Sciences	149	4.5 (3.9)	65%
CH353 (Spring 2015)	Physical Chemistry I: Thermodynamics & Kinetics	79	4.6 (4.1)	46%
CH353 (Spring 2014)	Physical Chemistry I: Thermodynamics & Kinetics	80	4.7 (4.1)	59%

Students & Postdoctoral Scholars Advised**Postdoctoral Scholars:**

Dr. Ravindra Pandey (October 2014 – April 2017): Assistant Professor, IACS, Kolkata, India

Graduate Students:

Michael S. Azzaro (December 2013 – present)

Aaron K. Le (December 2013 – present)

Aaron P. Moon (December 2013 – present)

Jon A. Bender (October 2014 – present)

Michelle A. Blemker (September 2015 – present)

Daniel E. Cotton (October 2016 – present)

Emily Raulerson (October 2016 – present)

Atlantis Frost (Co-advised with Lauren Webb: November 2016 – present)

Current Undergraduate Students:

Mirna M. Gonzalez (August 2015 – present)

Benjamin Renard (September 2015 – present)

Diana Y. Zhang (July 2016 – present)

Brooks T. Clingman (March 2017 – present)

Mark C. Babin (June 2014 – July 2016): Graduate Student at UC Berkeley, Department of Chemistry

John Gao (January 2016 – December 2016)

Jacob P. Anderson (June 2016 – December 2016)

Zachary Tobin (September 2016 – December 2016)

Community College Students:

Mitchell Haecker (June 2017 – present)

High School Students:

Kelby Erickson (Welch Summer Scholar: June 2015 – July 2015): Currently attending UT Austin

Lauren Dossett (Welch Summer Scholar: June 2016 – July 2016): Currently attending MIT

Education Activities

Green Energy At Texas (GREAT) (Spring/Summer 2017)

Austin Community College (ACC) & University of Texas at Austin, Department of Chemistry

Program Website: www.GreenEnergyATX.org

- Co-created with Dr. Shawn Amorde (ACC) a program designed to attract students to the physical sciences through a summer research program focused on current topics in green energy research.
- Currently funded by NSF and the American Chemical Society

ACS Symposium on Energy and Charge Transfer at Nanoscale Interfaces

American Chemical Society National Meeting, Spring 2018, New Orleans

- Co-organizer, with Dr. Katherine Willets (Temple) and Dr. Libai Huang (Purdue), of an ACS symposium focused on energy and charge migration in nanostructured materials.

2016 Southwest Ultrafast Conference (June 16-17, 2016, University of Texas at Austin)

- Co-organizer with Assistant Prof. Carlos Baiz (UT Austin) of a symposium on ultrafast nonlinear spectroscopy sponsored by Coherent, Inc. that featured 17 speakers and >100 registered attendees.

Presentations to UT Austin Student Groups

Omega Chi Epsilon (OXE) Graduate School Q&A Panel Participant (February 2017)

ACS UT Austin Student Chapter (April 2016, May 2015)

College of Natural Sciences Dean's Scholars (October 2015)

Graduate School Fair "Is Graduate School for Me?" Faculty Panel Participant (October 2015)

Welch Summer Scholars (June 2015)

SURGe (November 2014)

College of Natural Sciences Professional Development Panel Participant (May 2014)

Cerritos College Summer Research Program (Summer 2010, Summer 2011, Summer 2012)

University of Southern California, Department of Chemistry

- Implemented an undergraduate summer research program between USC and Cerritos Community College (CCC). Led the program's student selection and recruitment process and served as a research mentor. Work by CCC participants has been featured in *J. Phys. Chem. Lett.* and *J. Amer. Chem. Soc.*

Burg Postdoctoral Teaching Fellowship (Spring 2012)

University of Southern California, Department of Chemistry

- Co-taught Chemistry 115B, a second semester introductory honors chemistry course.

Teaching Assistant (Fall 2003, Spring 2005)

Massachusetts Institute of Technology Department of Chemistry

Journal Publications

1. A. P. Moon, R. Pandey, J. A. Bender, D. E. Cotton, B. A. Renard, & S. T. Roberts, "Using Heterodyne-Detected Electronic Sum Frequency Generation to Probe the Electronic Structure of Buried Interfaces" *Submitted*, (2017).
2. R. W. Johns, M. A. Blemker, M. S. Azzaro, S. Heo, E. L. Runnerstrom, D. J. Milliron, & S. T. Roberts, "Charge Carrier Concentration Dependence of Ultrafast Plasmonic Relaxation in Conducting Metal Oxide Nanocrystals" *J. Mater. Chem. C*. In Press, DOI:10.1039/C7TC00600D, (2017).
3. M. S. Azzaro, M. C. Babin, S. K. Stauffer, G. Henkelman, & S. T. Roberts, "Can exciton-delocalizing ligands facilitate hot hole transfer from semiconductor nanocrystals?" *J. Phys. Chem. C*. **120**(49), 28224-34, (2016).
4. A. K. Le, J. A. Bender, & S. T. Roberts, "Slow Singlet Fission Observed in a Perylenediimide Thin Film" *J. Phys. Chem. Lett.* **7**, 4922-28, (2016).

5. R. Pandey, A. M. Moon, J. A. Bender, & S. T. Roberts, “Extracting the density of states of copper phthalocyanine films at the SiO₂ interface with electronic sum frequency generation” *J. Phys. Chem. Lett.* **7**(6), 1060-66, (2016).
6. S. T. Roberts, “Singlet to triplet and back again” *Nature Chem.* **7**, 764-65, (2015) *Invited News and Views Article*.

From Postdoctoral Work:

7. S. Das, P. P. Khlyabich, B. Burkhart, S. T. Roberts, E. Couderc, B. C. Thompson, & S. E. Bradforth, “Quantifying charge recombination in solar cells based on donor-acceptor P3HT analogs” *J. Phys. Chem. C* **118**, 6650-60, (2014).
8. R. Sarkissian, S. T. Roberts, T.-W. Yeh, S. Das, S. E. Bradforth, J. O’Brien, & P. D. Dapkus, “Photon quenching in InGaN quantum well light emitting devices” *Appl. Phys. Lett.* **103**, 041123, (2013).
9. J. N. Mastron, S. T. Roberts, R. E. McAnally, M. E. Thompson, & S. E. Bradforth, “Aqueous colloidal acene nanoparticles: A new platform for studying singlet fission” *J. Phys. Chem. B* **117**(49), 15519-26, (2013).
10. P. Dhar, P. P. Khlyabich, B. Burkhart, S. T. Roberts, S. S. Malyk, B. C. Thompson, & A. V. Benderskii, “Annealing induced changes in the molecular orientation of poly-3-hexylthiophene at buried interfaces” *J. Phys. Chem. C* **117**(29), 15213-20, (2013).
11. Q. Zhong, V. V. Diev, S. T. Roberts, S. E. Bradforth, & M. E. Thompson, “Fused porphyrin-single walled carbon nanotube hybrids: Efficient formation and photophysical characterization” *ACS Nano* **7**(4), 3466-75, (2013).
12. S. T. Roberts, R. E. McAnally, J. N. Mastron, D. H. Webber, M. T. Whited, R. L. Brutchey, M. E. Thompson, & S. E. Bradforth, “Efficient singlet fission discovered in a disordered acene film” *J. Am. Chem. Soc.* **134**(14), 6388-400, (2012).
13. M. T. Whited, N. M. Patel, S. T. Roberts, P. I. Djurovich, S. E. Bradforth, & M. E. Thompson, “Symmetry-breaking intramolecular charge transfer in the excited state of meso-linked BODIPY dyads” *Chem. Comm.* **48**, 284-86, (2012).
14. S. T. Roberts, C. W. Schlenker, V. Barlier, R. E. McAnally, Y. Zhang, J. N. Mastron, M. E. Thompson, & S. E. Bradforth, “Observation of triplet exciton formation in a platinum sensitized organic photovoltaic device” *J. Phys. Chem. Lett.* **2**(2), 49-54, (2011).
15. M. T. Whited, P. I. Djurovich, S. T. Roberts, A. C. Durrell, C. W. Schlenker, S. E. Bradforth, & M. E. Thompson, “Singlet and triplet excitation management in a bichromophoric near-infrared-phosphorescent BODIPY-benzoporphyrin platinum complex” *J. Am. Chem. Soc.* **133**(1), 88-96 (2011).

From Graduate Work:

16. S. T. Roberts, A. Mandal, & A. Tokmakoff, “Local and collective reaction coordinates in the transport of the aqueous hydroxide ion” *J. Phys. Chem. B* **118**(28), 8062-69, (2014).
17. K. Ramasesha, S. T. Roberts, R. A. Nicodemus, A. Mandal, & A. Tokmakoff, “Ultrafast 2D IR anisotropy of water reveals reorientation during hydrogen-bond switching” *J. Chem. Phys.* **135**, 054509, (2011).
18. S. T. Roberts, K. Ramasesha, P. B. Petersen, A. Mandal, & A. Tokmakoff, “Proton transfer in concentrated aqueous hydroxide visualized using ultrafast infrared spectroscopy” *J. Phys. Chem. A* **115**(16), 3957-72, (2011).
19. S. T. Roberts, J. J. Loparo, K. Ramasesha, & A. Tokmakoff, “A fast-scanning Fourier transform 2D IR interferometer” *Opt. Commun.* **284**, 1062-66, (2010).
20. R. A. Nicodemus, K. Ramasesha, S. T. Roberts, & A. Tokmakoff, “Hydrogen bond rearrangements in water probed with temperature-dependent 2D IR” *J. Phys. Chem. Lett.* **1**(7), 1068-72, (2010).
21. S. T. Roberts, P. B. Petersen, K. Ramasesha, A. Tokmakoff, I. S. Ufimtsev, & T. J. Martinez, “Observation of a Zundel-like transition state during proton transfer in aqueous hydroxide” *Proc. Natl. Acc. Sci. U.S.A.* **106**(36), 15154-59, (2009).

22. S. T. Roberts, K. Ramasesha, & A. Tokmakoff, "Structural rearrangements in water viewed through two-dimensional infrared spectroscopy" *Acc. Chem. Resh.* **42**(9), 1239-49, (2009). **Cover Article**
23. P. B. Petersen, S. T. Roberts, K. Ramasesha, D. G. Nocera, & A. Tokmakoff, "Ultrafast N-H vibrational dynamics of cyclic doubly hydrogen-bonded homo- and heterodimers" *J. Phys. Chem. B.* **112**, 13167-71, (2008).
24. J. J. Loparo, S. T. Roberts, R. A. Nicodemus, & A. Tokmakoff, "Variation of the transition dipole moment across the OH stretching band of water" *Chem. Phys.* **341**(1-3), 218-29 (2007).
25. J. R. Schmidt, S. T. Roberts, J. J. Loparo, A. Tokmakoff, M. D. Fayer, & J. L. Skinner, "Are water simulation models consistent with steady-state and ultrafast vibrational spectroscopy experiments?" *Chem. Phys.* **341**(1-3), 143-57, (2007).
26. S. T. Roberts, J. J. Loparo, & A. Tokmakoff, "Characterization of spectral diffusion from two-dimensional line shapes" *J. Chem. Phys.* **125**, 084502 (2006).
27. J. J. Loparo, S. T. Roberts, & A. Tokmakoff, "Multidimensional infrared spectroscopy of water. I. Vibrational dynamics in two-dimensional IR line shapes" *J. Chem. Phys.* **125**, 194521, (2006).
28. J. J. Loparo, S. T. Roberts, & A. Tokmakoff, "Multidimensional infrared spectroscopy of water. II. Hydrogen bond switching dynamics" *J. Chem. Phys.* **125**, 194522, (2006).
29. J. D. Eaves, J. J. Loparo, C. J. Fecko, S. T. Roberts, A. Tokmakoff, & P. L. Geissler, "Hydrogen bonds in liquid water are broken only fleetingly" *Proc. Natl. Acc. Sci. U.S.A.* **102**(37) 13019-22. (2005).
30. C. J. Fecko, J. J. Loparo, S. T. Roberts, & A. Tokmakoff, "Local hydrogen bonding dynamics and collective reorganization in water: Ultrafast infrared spectroscopy of HOD/D₂O" *J. Chem. Phys.* **122**, 054506 (2005).
31. J. J. Loparo, C. J. Fecko, J. D. Eaves, S. T. Roberts, & A. Tokmakoff, "Reorientational and configurational fluctuations in water observed on molecular length scales" *Phys. Rev. B.* **70**, 180201(R), (2004).

From Undergraduate Work:

32. A. D. Smith, C. K.-F. Shen, S. T. Roberts, R. Helgeson, & B. J. Schwartz, "Ionic strength and solvent control over the physical structure, electronic properties and superquenching of conjugated polyelectrolytes" *Res. Chem. Intermed.* **33**(1-2), 125-42, (2007).

Conference Proceedings

1. S. T. Roberts, P. B. Petersen, K. Ramasesha, & A. Tokmakoff, "The dynamics of aqueous hydroxide ion transport probed via ultrafast vibrational echo experiments," in *Ultrafast Phenomena XVI*, edited by P. Corkum, S. De Silvestri, K. A. Nelson, E. Riedle, & R. W. Schoenlein, (Springer-Verlag, Berlin, 2008).
2. J. J. Loparo, S. T. Roberts, & A. Tokmakoff, "2D IR spectroscopy of hydrogen bond switching in liquid water," in *Ultrafast Phenomena XV*, edited by P. Corkum, D. Jonas, D. Miller, & A. M. Weiner, (Springer-Verlag, Berlin, 2006).
3. C. J. Fecko, J. D. Eaves, J. J. Loparo, S. T. Roberts, A. Tokmakoff, & P. L. Geissler, "Dynamics of hydrogen bonds in water: Vibrational echoes and two-dimensional infrared spectroscopy," in *Ultrafast Phenomena XIV*, edited by T. Kobayashi, T. Okada, T. Kobayashi, K. A. Nelson, & S. De Silvestri, (Springer-Verlag, Berlin, 2004).

Invited Presentations (past and future)

1. S. T. Roberts, "Following Energy Transfer Across Buried Interfaces" *To be given* at the SPIE Optics and Photonics National Meeting, San Diego, CA, August 2017
2. S. T. Roberts, "Building new Probes for Watching Interfacial Energy Transfer" *To be given* at the 9th International Conference on Advanced Vibrational Spectroscopy, Victoria, BC, Canada, June 2017.
3. S. T. Roberts, "Engineering Energy Flow in Excitonic Materials" Temple University, Physical Chemistry Seminar, Philadelphia, PA, April 2017.

4. A. K. Le, J. A. Bender, A. P. Moon, R. Pandey, & S. T. Roberts, “Extracting Triplet Excitons Produced by Singlet Exciton Fission from Perylene Diimide Thin Films” 253rd American Chemical Society National Meeting, San Francisco, CA, March 2017.
5. S. T. Roberts, “Using Singlet Fission to Repackage Solar Energy” Louisiana State University, Physical Chemistry Seminar, Baton Rouge, LA, November 2016.
6. A. K. Le, J. A. Bender, R. Pandey, A. P. Moon, & S. T. Roberts, “Utilizing Singlet Fission Materials to Repackage Solar Energy” 252nd American Chemical Society National Meeting, Philadelphia, PA, August 2016.
7. S. T. Roberts, “Probing Buried Surfaces with Electronic Sum Frequency Generation” Nonlinear Optics at Interfaces Workshop, Telluride, CO, June 2016.
8. S. T. Roberts, “Harvesting Solar Energy from Singlet Fission Materials” 2016 Southwest Ultrafast Conference, University of Texas at Austin, Austin, TX, June 2016.
9. S. T. Roberts, “Harvesting Solar Energy from Singlet Fission Materials” Atomic & Molecular Optics Physics Seminar, University of Texas at Austin, Austin, TX, April 2016.
10. S. T. Roberts, “Harvesting Solar Energy from Singlet Fission Materials” Center for Excitonics, Massachusetts Institute of Technology, Cambridge, MA, April 2016.
11. S. T. Roberts, “Using Singlet Fission to Harvest Solar Energy” 1st Sino-German Symposium on Structures and Dynamics at Surfaces, Peeking University, Beijing, China, November 2015.
12. A. K. Le, J. A. Bender, & S. T. Roberts, “Uncovering Structure-Function Relationships for Singlet Exciton Fission” EMN (Energy Materials Nanotechnology) Meeting, Cancun, Mexico, June 2015.
13. S. T. Roberts, “Electronic Dynamics at Organic Semiconductor Interfaces” Nonlinear Optics at Interfaces Workshop, Telluride, CO, June 2014.
14. S. T. Roberts, “Singlet Fission: From Fundamental Principles to Device Design” Atomic & Molecular Optics Physics Seminar, University of Texas at Austin, Austin, TX, March 2014.

From Postdoctoral Work:

15. S. T. Roberts, R. E. McAnally, J. N. Mastron, W. Mou, A. Nakano, M. E. Thompson, & S. E. Bradforth, “Singlet Fission: From Fundamental Principles to Photovoltaic Device Design” 10th International Conference on Optical Probes of Conjugated Polymers & Organic Nanostructures, Durham University, Durham, UK, July 2013.
16. M. E. Thompson, S. T. Roberts, V. Diev, R. E. McAnally, S. E. Bradforth, S. Conron, J. P. Zimmerman, & S. R. Forrest, “Exciton Management in Organic Photovoltaics” Fall 2011 Materials Research Society Meeting, Boston, MA. December 2011.

From Graduate Work:

17. S. T. Roberts, “Transport of the Aqueous Hydroxide Ion Measured Using Nonlinear Infrared Spectroscopy” Special Physical Chemistry Seminar, Kobe University. Japan. September 2008.

Contributed Presentations (past and future)

1. A. P. Moon, A. K. Le, J. A. Bender, R. Pandey, D. E. Cotton, & S. T. Roberts, “Harvesting Solar Energy with Singlet Exciton Fission” *To be given* at the 12th International Conference on Optical Probes of Conjugated Polymers & Organic Nanostructures, Quebec City, Canada, June 2017.
2. S. T. Roberts, “Singlet Fission and Triplet Fusion in Hybrid Organic-Inorganic Materials” *To be given* at the 7th Singlet Fission Workshop, Lyons, CO, June 2017.
3. A. P. Moon, R. Pandey, A. K. Le, J. A. Bender, & S. T. Roberts, “Extracting Solar Energy from Singlet Fission Materials” 8th International Conference on Coherent Multidimensional Spectroscopy, University of Groningen, Groningen, Netherlands, June 2016.
4. S. T. Roberts, “How Efficient is Singlet Fission in Perylene Diimide Films?” 6th Singlet Fission Workshop, Lyons, CO, June 2016.
5. A. K. Le, J. A. Bender, & S. T. Roberts, “Harvesting Solar Energy from Singlet Fission Materials” 251st American Chemical Society National Meeting, San Diego, CA. March 2016.

6. A. K. Le, J. A. Bender, & S. T. Roberts, “Working Towards the Development of Singlet Fission Based Light Harvesting Systems” 250th American Chemical Society National Meeting, Boston, MA. August 2015.
7. S. T. Roberts, “Singlet Fission and Triplet Extraction from Perylene Diimide Films” 5th Singlet Fission Workshop, Lyons, CO, June 2015.
8. S. T. Roberts, R. E. McAnally, J. N. Mastron, M. E. Thompson, & S. E. Bradforth, “Competition between Singlet Exciton Fission and Excimer Formation in a Disordered Acene Film” Spring 2015 Materials Research Society Meeting, San Francisco, CA. April 2015
9. S. T. Roberts, “Probing Molecular Organization and Electronic Dynamics at Buried Organic Interfaces” American Physical Society Meeting, San Antonio, TX. March 2015

From Postdoctoral Work:

10. S. T. Roberts, R. E. McAnally, J. N. Mastron, M. E. Thompson, & S. E. Bradforth, “How Does Molecular Organization Influence Singlet Fission?” 3rd Singlet Fission Workshop, Lyons, CO, June 2013.
11. S. T. Roberts, R. E. McAnally, J. N. Mastron, M. E. Thompson, & S. E. Bradforth, “Building an Understanding of Singlet Fission in Disordered Acene Films” 2nd Singlet Fission Workshop, Lyons, CO, June 2012.
12. S. T. Roberts, R. E. McAnally, J. N. Mastron, S. Das, Y. Zhang, M. E. Thompson, & S. E. Bradforth, “Building a Model for the Kinetics of Singlet Fission in Disordered Acene Films” 59th Annual Western Spectroscopy Association Conference, Asilomar, CA. January 2012.
13. S. T. Roberts, R. E. McAnally, J. N. Mastron, M. E. Thompson, & S. E. Bradforth, “Working Towards the Development of Singlet Fission Based Organic Photovoltaics” 242nd American Chemical Society National Meeting, Denver, CO. August 2011.
14. S. T. Roberts, C. W. Schlenker, V. Barlier, R. E. McAnally, Y. Zhang, J. N. Mastron, M. E. Thompson, & S. E. Bradforth, “Building a Model System for Triplet Excitons: Femtosecond Transient Absorption Measurements of Sensitized Conjugated Acene Films” Spring 2011 Materials Research Society Meeting, San Francisco, CA. April 2011.
15. S. T. Roberts, C. W. Schlenker, V. Barlier, Y. Zhang, R. E. McAnally, M. E. Thompson, & S. E. Bradforth, “Energy Transport in a Triplet Sensitized Organic Photovoltaic Viewed Using Femtosecond Transient Absorption Spectroscopy” 8th International Conference on Electroluminescence and Organic Optoelectronics, Univ. of Michigan, Ann Arbor, MI, October 2010.

From Graduate Work:

16. S. T. Roberts, P. B. Petersen, K. Ramasesha, & A. Tokmakoff, “Aqueous Hydroxide Ion Transport Viewed Using Ultrafast 2D IR Spectroscopy” 14th International Conference on Time-Resolved Vibrational Spectroscopy, Meredith, NH. May 2009.
17. S. T. Roberts, P. B. Petersen, K. Ramasesha, & A. Tokmakoff, “Transport of the Aqueous Hydroxide Ion Probed Through Ultrafast Two-Dimensional Infrared Spectroscopy” 4th Coherent Multidimensional Spectroscopy Conference, Kyoto, Japan. August 2008.
18. S. T. Roberts, P. B. Petersen, K. Ramasesha, & A. Tokmakoff, “Aqueous Charge Transfer Dynamics Probed Via Ultrafast Nonlinear Infrared Spectroscopy” 236th American Chemical Society National Meeting, Philadelphia, PA. August 2008.

Professional Affiliations & Service

Reviewer: Journal of Physical Chemistry (A/B/C/Letters), Journal of the American Chemical Society, Journal of Chemical Physics, ACS Energy Letters, Optics Letters, Nature Chemistry, Chemical Science, Chem, Journal of the Optical Society of America B, Chemical Physics Letters, DOD NDSEG, DOE BES, NSF CHE (MSN & CSDM-A), ACS PRF, UT Austin Undergraduate Research Fellowship (URF) Program

Member: Phi Beta Kappa (inducted 2003), American Chemical Society (since 2003)

College Committees: Undergraduate Education Strategic Curriculum Planning Taskforce (2016-present), Texas Materials Institute Executive Committee (2016-present), Center for Nano & Molecular Science Advisory Committee (2016), Welch Hall Renovation Research Advisory Committee (2015-2016), College of Natural Sciences Graduate Awards Committee (2016-present), Ad Hoc Committee for Academic and Research Opportunities in Materials Science and Engineering (2017-present)

Departmental Committees: Graduate Admissions (co-chair, 2014-present), Analytical/Physical Junior Faculty Search (2014-2015, 2015-2016), Graduate Program Committee (2016-present), Faculty Advisory Committee (2016–present), Chemical Safety Committee (2014-present)