

CURRICULUM VITAE

1. Matthew Ben Zimmt

Professor
Chemistry Department, Brown University

2. Work Address:

Department of Chemistry
Brown University, Providence, Rhode Island 02912

3. Education:

B.Sc. (Chemistry)	Case Institute of Technology,	1981
M.A. (Chemistry)	Columbia University,	1982
M.Ph. (Photochemistry)	Columbia University,	1985
Ph.D. (Photochemistry)	Columbia University,	1985
Postdoctoral (Chemical Physics)	Stanford University,	1985-87

Dissertation Topic: I. Lifetimes of 2-phenyleycloalkanone derived triplet biradicals. The importance of spin orbit coupling, hyperfine and chain dynamics; II. The Kinetics and energetics of dibenzyl ketone derived triplets radical pair reactions in micelles.

4. Professional Appointments:

Stanford University	Research Associate,	1985-87
Brown University	Assistant Professor,	1987-93
Brown University	Associate Professor,	1993-99
Brown University	Professor	1999-
Brown University	Department Chair	2010- *

5. Scholarship

Books:

1. Organic Chemistry, Principles and Patterns, with J. W. Suggs, Wiley, New York (in prep).

Publications:

1. N. J. Turro, M. B. Zimmt, I. R. Gould, 'Dynamics of Micellized Radical Pairs. Measurement of Micellar Exit Rates of Benzylic Radicals,' *J. Am. Chem. Soc.*, **1983**, *105*, 6347.
2. M. B. Zimmt, C. Doubleday, Jr., N. J. Turro, 'Energetics and Dynamics of Radical Pairs in Micelles. Measurement of the Average Singlet-Triplet Energy Gap by Means of the Magnetic Field Dependence of Carbon-13 CIDNP,' *J. Am. Chem. Soc.*, **1984**, *106*, 3363.
3. I. R. Gould, N. J. Turro, M. B. Zimmt, 'Magnetic Field and Magnetic Isotope Effects on the Products of Organic Reactions,' *Adv. Phys. Org. Chem.*, **1984**, *20*, 1.
4. I. R. Gould, M. B. Zimmt, N. J. Turro, B. H. Baretz, G. F. Lehr, 'Dynamics of Radical Pair Reactions in Micelles,' *J. Am. Chem. Soc.*, **1984**, *107*, 4607.
5. N. J. Turro, M. A. Paczkowski, M. B. Zimmt, J. K. S. Wan, 'The Observation of CIDEP from the Photodecomposition of Dibenzyl Ketone in Micellar Solution,' *Chem. Phys. Lett.*, **1985**, *114*, 561.

6. N. J. Turro, M. B. Zimmt, I. R. Gould, W. Mahler, 'Triplet Energy Transfer as a Probe of Surface Diffusion Rates: Time Resolved Diffuse Reflectance Transient Absorption Spectroscopy,' *J. Am. Chem. Soc.*, **1985**, *107*, 5826.
7. M. B. Zimmt, C. Doubleday Jr., N. J. Turro, 'Magnetic Field Effect on the Intersystem Crossing Rate Constants of Biradicals Measured by Nanosecond Transient UV Absorption,' *J. Am. Chem. Soc.*, **1985**, *107*, 6726.
8. N. J. Turro, I. R. Gould, M. B. Zimmt, C. C. Cheng, 'Ketone Photochemistry on Solid Silica. A Diffuse Reflectance Laser Flash Photolysis Study,' *Chem. Phys. Lett.*, **1985**, *119*, 484.
9. M.B. Zimmt, C. Doubleday, Jr., I.R. Gould, N.J. Turro, 'Nanosecond Flash Photolysis Studies of Intersystem Crossing Rate Constants in Biradicals: Structural Effects Brought About by Spin Orbit Coupling,' *J. Am. Chem. Soc.*, **1985**, *107*, 6724.
10. N. J. Turro, X. G. Lei, I. R. Gould, M. B. Zimmt, 'External Magnetic Field Dependent Influence of Lanthanide Ions on the Chemistry of Radical Pairs in Micelles,' *Chem. Phys. Lett.*, **1985**, *120*, 397.
11. X. G. Lei, C. E. Doubleday, Jr., M. B. Zimmt, N. J. Turro, 'Photochemistry of 2-phenylcyclohexanones. Formation of Cyclophanes and Encapsulation by a Ship-in-Bottle and by a Reptation Strategy,' *J. Am. Chem. Soc.*, **1986**, *108*, 2444.
12. M. B. Zimmt, C. Doubleday, Jr., N. J. Turro, 'The Rate-Determining Step for Decay of Triplet Biradicals: Intersystem Crossing vs. Chain Dynamics,' *J. Am. Chem. Soc.*, **1986**, *108*, 3618.
13. K. A. Peterson, M. B. Zimmt, S. Linse, R. P. Domingue, M. D. Fayer, 'Quantitative Determination of the Radius of Gyration of Poly(Methyl Methacrylate) in the Amorphous Solid State by Time-Resolved Fluorescence Depolarization Measurements of Excitation Transport,' *Macromolecules*, **1987**, *20*, 168.
14. N.J. Turro, M.B. Zimmt, X. Lei, I.R. Gould, K.S. Nitsche, Y. Cha, 'Additive Effects of the CIDNP, Cage Effect and Exit Rate of Radical Pairs in Micelles,' *J. Phys. Chem.*, **1987**, *91*, 4544.
15. M. B. Zimmt, C. Doubleday Jr., N. J. Turro, 'Substituent and Solvent Effects on the Lifetimes of Hydrocarbon-based Biradicals,' *Chem. Phys. Lett.*, **1987**, *134*, 549.
16. N. J. Turro, M. B. Zimmt, I. R. Gould, 'Magnetic Field and Isotope Dependences of the Reaction Rates of Micellized Triplet Radical Pairs,' *J. Phys. Chem.*, **1988**, *92*, 433.
17. R.C. Dorfman, Y. Lin, M.B. Zimmt, J. Baumann, R.P. Dominique and M.D. Fayer, 'Photo Induced Electron Transfer and Back Transfer in Systems of Randomly Distributed Donors and Acceptors: Picosecond Transient Grating Experiments,' *J. Phys. Chem.*, **1988**, *92*, 4258.
18. N. J. Turro, K. C. Waterman, K. M. Welsh, M. A. Paczkowski, M. B. Zimmt, C.-C. Cheng, W. Mahler, 'Use of Electron Spin Resonance to Study the Photochemistry of Absorbed Dibenzylketone on Porous Silica,' *Langmuir*, **1988**, *4*, 677.

19. M. B. Zimmt, K. A. Peterson, M. D. Fayer, 'Short Polymer Chain Statistics and the Relationship to End to End Electronic Excitation Transport: Random Walks with Variable Step Lengths', *Macromolecules*, **1988**, *21*, 1145.
20. K.A. Peterson, M.B. Zimmt, M.D. Fayer, Y.H. Jeng, C.W. Frank, 'Fluorescence Depolarization of Chromophores in Polymeric Solid', *Macromolecules*, **1989**, *22*, 874.
21. M.B. Zimmt, 'The Energy of the Twisted Excited Singlet State of Tetraphenylethylene: Picosecond Optically Detected Calorimetry', *Chem. Phys. Lett.*, **1989**, *160*, 564.
22. J.D. Farmer Jr., G.R. Gustafson, A. Conti, M.B. Zimmt, J. W. Suggs, 'DNA Binding Properties of a New Class of Linked Anthramycin Analogs', *Nucleic Acids Research*, **1991**, *19*, 899.
23. J. Morais, J. Ma, M.B. Zimmt, 'Solvent Dependence of the Twisted Excited Singlet State Energy of Tetraphenylethylene: Evidence for a Zwitterionic State from Picosecond Optical Calorimetry', *J. Phys. Chem.*, **1991**, *95*, 3885.
24. V. P. Rao, M. B. Zimmt, N. J. Turro, 'Photo-Production of Remarkably Stable Benzylic Radicals in Cyclodextrin Inclusion Complexes', *J. Photochem. Photobiol. A*, **1991**, *60*, 355.
25. Y. Zeng, M. B. Zimmt, 'Symmetry Effects in Photoinduced Electron Transfer Reactions', *J. Am. Chem. Soc.*, **1991**, *113*, 5107.
26. M. B. Zimmt, 'Kinetics and Energetics of Photochemical Reactions Using Picosecond Optical Calorimetry', *SPIE Proceedings*, **1991**, *1599*, 115.
27. R. J. Tepper, A. J. Hooper, D. H. Waldeck, M. B. Zimmt, 'Photophysics of Polycycloalkane Xanthenylidene Compounds', *Chem. Phys. Lett.*, **1992**, *191*, 411.
28. Y. Zeng, M. B. Zimmt, 'Symmetry Effects on Electron Transfer Reactions: Temperature Dependence as a Diagnostic Tool', *J. Phys. Chem.*, **1992**, *96*, 8395.
29. T. Sun, J. Morais, G. J. Diebold, M. B. Zimmt, 'Investigation of Viscosity and Heat Conduction Effects on the Evolution of a Transient Picosecond Photoacoustic Grating', *J. Chem. Phys.*, **1992**, *97*, 9324.
30. J. Ma, M. B. Zimmt, 'Equilibration Between the Fluorescent and Zwitterionic Phantom States in Alkyl Substituted Tetraphenylethylenes', *J. Am. Chem. Soc.*, **1992**, *114*, 9723.
31. J. Morais, R. R. Hung, J. J. Grabowski, M. B. Zimmt, 'Charge Transfer State Photophysics in a Rigid Molecule: Competition Between Electron Transfer Processes in the Marcus Normal and Inverted Region', *J. Phys. Chem.*, **1993**, *97*, 13138.
32. R. J. Lavalley, M. B. Zimmt, 'Interactions Between Electrolyte and Charge Transfer States: Evidence for Complex Formation', *J. Phys. Chem.*, **1994**, *98*, 4254.
33. Y. N. Cao, H. X. Chen, T. Sun, G. J. Diebold, M. B. Zimmt, 'Thermally Launched Photoacoustic Waves', *J. de Physique IV*, **1994**, C7-713.
34. J. Ma, B. G. Dutt, D. H. Waldeck, M. B. Zimmt, 'The Excited State Potential Energy Surface for the Photoisomerization of Tetraphenylethylene: A Fluorescence and Picosecond Optical Calorimetry Investigation', *J. Am. Chem. Soc.* **1994**, *116*, 10619.

35. J. Morais, M. B. Zimmt, 'The Thermodynamics of Intramolecular Electron Transfer in Alkane Solvents,' *J. Phys. Chem.*, **1995**, *99*, 8863.
36. R. J. Tepper, M. B. Zimmt, 'Thermochromism of Intramolecular Charge Transfer Emission Bands: Probing the Temperature Dependence of Franck Condon Factors,' *Chem. Phys. Lett.* **1995**, *241*, 566.
37. K. Kumar, R. J. Tepper, Y. Zeng, M. B. Zimmt, 'Syntheses of Rigid and Semirigid Molecules for Investigations of Electron Transfer Reactions,' *J. Org. Chem.* **1995**, *60*, 4051.
38. R. J. Cave, M. D. Newton, K. Kumar, M. B. Zimmt, 'A Theoretical Study of Solvent Effects on the Electronic Coupling Matrix Element in Rigidly Linked Donor-Acceptor Systems,' *J. Phys. Chem.* **1995**, *99*, 17501.
39. K. Kumar, Z. Lin, D. H. Waldeck, M. B. Zimmt, 'Electronic Coupling in C-Clamp Shaped Molecules: Solvent Mediated Superexchange Pathways,' *J. Am. Chem. Soc.* **1996**, *118*, 243.
40. J. P. Toscano, M. S. Platz, V. Nikolaev, Y. Cao, M. B. Zimmt, 'Confirmation of the Absolute Rate Constant for Pyridine Reaction with Formylcarbenes by Transient Absorption and Transient Grating Spectroscopies,' *J. Am. Chem. Soc.* **1996**, *118*, 3527.
41. M. B. Zimmt, P. A. Vath, 'Separating Enthalpy and Volume Contributions in Photothermal Experiments: A Perspective,' *Photochem. Photobio.* **1997**, *65*, 10 - 14.
42. Y. Gu, K. Kumar, Z. Lin, I. Read, M. B. Zimmt, D. H. Waldeck, 'Studies into the Character of Electronic Coupling in Electron Transfer Reactions,' *J. Photochem. Photobio. A.* **1997**, *105*, 189-196.
43. M. B. Zimmt, 'Intramolecular Electron Transfer Studies as a Function of Bridge Topology: The Importance of Solvent Mediated, Donor-Acceptor Electronic Coupling,' *Chimia*, **1997**, *51*, 82-89.
44. Y. N. Cao, H. X. Chen, G. J. Diebold, M. B. Zimmt, 'Generation of the Photoacoustic Effect through Heat Diffusion: Transient Grating Measurements in Reverse Micellar Solutions,' *J. Phys. Chem. B*, **1997**, *101*, 3005 - 3011.
45. Y. N. Cao, G. Diebold, M. B. Zimmt, 'Transient Grating Studies of Ultrasonic Attenuation in Reverse Micellar Solutions,' *Chem. Phys. Lett.*, **1997**, *276*, 388 -392.
46. M. B. Zimmt, "Solvent Mediated Donor-Acceptor Electronic Coupling in Intramolecular Electron Transfer Reactions,' Grammatikakis-Neumann Prize Lecture: 1996, *EPA Newsletter*, **1997**, *59*, 42 - 53.
47. K. Kumar, I. Kurnikov, D. Beratan, D. Waldeck, M. B. Zimmt, 'Use of Modern Electron Transfer Theories to Determine Electronic Coupling Matrix Elements in Intramolecular Systems,' *J. Phys. Chem. A.*, **1998**, *102*, 5529 - 5541.
48. P. A. Vath, M. B. Zimmt, 'Calibrating Picosecond Time Resolved Optical Calorimetry: Absolute Enthalpies from Investigations of Mixtures,' *Isr. J. Chem.*, **1998**, *38*, 207 - 211.

49. H. Han, M. B. Zimmt, 'Solvent Mediated Electron Transfer: Correlation Between Coupling Magnitude and Solvent Vertical Electron Affinities,' *J. Am. Chem. Soc.*, **1998**, *120*, 8001 - 8002.
50. P. Vath, M. B. Zimmt, D. V. Matyushov, G. A. Voth, "A Failure of Continuum Theory: Temperature Dependence of the Solvent Reorganization Energy of Electron Transfer in Highly Polar Solvents," *J. Phys. Chem. B.*, **1999**, *103*, 9130-9140.
51. I. Read, A. Napper, R. Kaplan, M. B. Zimmt, D. H. Waldeck, "Solvent-Mediated Electronic Coupling: The Role of Solvent Placement," *J. Am. Chem. Soc.*, **1999**, *121*, 10976-10986.
52. P. Vath, M. B. Zimmt, "A Spectroscopic Study of Solvent Reorganization Energy: Dependence on Temperature, Charge Transfer Distance and the Type of Solute - Solvent Interactions," *J. Phys. Chem. A.*, **2000**, *104*, 2626-2633.
53. I. Read, A. Napper, M. B. Zimmt, and D. H. Waldeck ; "Electron Transfer in Aromatic Solvents: The Importance of Quadrupolar Interactions," *J. Phys. Chem. A*; **2000**; *104*, 9385-9394.
54. R. W. Kaplan, A. M. Napper, D. H. Waldeck and M. B. Zimmt "Solvent Mediated Coupling Across 1 nm: Not a π -bond in Sight", *J. Am. Chem. Soc.* **2000**, *122*, 12039-12040.
55. R. W. Kaplan, A. M. Napper, D. H. Waldeck, M. B. Zimmt "The Role Played by Orbital Energetics in Solvent Mediated Electronic Coupling," *J. Phys. Chem. A*, **2001**, *106*, 1917 - 1925.
56. L. A. Cooley, H. Han, M. B. Zimmt "Evaluation of Electronic Coupling in a Donor-Bridge-Acceptor Molecule: A Fluorescence Polarization Anisotropy Investigation," *J. Phys. Chem. A*, **2002**, *106*, 884 - 892.
57. A. M. Napper, I. Read, R. Kaplan., M. B. Zimmt, D. H. Waldeck "Solvent Mediated Superexchange in a C-Clamp Shaped Donor-Bridge-Acceptor Molecule: The Correlation between Solvent Electron Affinity and Electronic Coupling," *J. Phys. Chem. A*, **2002**, *106*, 5288 - 5296.
58. A. M. Napper, I. Read, D. H. Waldeck R. Kaplan., M. B. Zimmt, "Electron Transfer Reactions of C-shaped Molecules in Alkylated Aromatic Solvents: Evidence that the Effective Electronic Coupling Magnitude is Temperature Dependent," *J. Phys. Chem. A* **2002**, *106*, 4784 - 4793.
59. M. B. Zimmt, D. H. Waldeck, "Exposing Solvent's Roles in Electron Transfer Reactions: Tunneling Pathway and Solvation," *J. Phys. Chem. A*. **2003**, *107*, 3580-97.
60. A. J. Wolpaw, A. A. Aizer, M. B. Zimmt, "Synthesis of self-orienting triptycene adsorbates for STM investigations," *Tetrahedron Lett.* **2003**, *44*, 7613-15.
61. P. Kapusta, O. Machalicky, R. Hrdina, M. Nepras, M. B. Zimmt, V. Fidler, "Photophysics of 3-Substituted Benzanthrones: Substituent and Solvent Control of Intersystem Crossing," *J. Phys. Chem. A*. **2003**, *107*, 9740-46.
62. J. M. Nadeau, M. Liu, D. H. Waldeck, M. B. Zimmt, "Hole Transfer in a C-Shaped Molecule: Conformational Freedom versus Solvent-Mediated Coupling," *J. Am. Chem. Soc.*

2003, 125, 15964-73.

63. A. Troisi, M. A. Ratner, M. B. Zimmt, "The dynamic nature of the intramolecular electronic coupling mediated by a solvent molecule: a computational study," *J. Am. Chem. Soc.*, **2004**, 126, 2215-24.

64. Y. Wei, K. Kannappan, G.W. Flynn, M.B. Zimmt, "Scanning tunneling microscopy of C_{2h} symmetry anthracene derivatives on graphite: Chain length effects on monolayer morphology," *J. Am. Chem. Soc.* **2004**, 126, 5318-22

65. J. I. Yeh, M. B. Zimmt, A. L. Zimmerman, "Nanowiring of a redox enzyme by metallized peptides," *Biosens. Bioelec.* **2005**, 21, 973-78.

66. M. Koebel, M. B. Zimmt, "Photothermal Readout of Surface-Arrayed Proteins: Attomole Detection Levels with Gold Nanoparticle Visualization," *J. Phys. Chem.* **2005**, 109, 16736-43.

67. M. Koebel, M. B. Zimmt, "Temporal position encoding photoacoustics: A technique for surface absorber mapping," *J. Appl. Phys.* **2005**, 98, 116104-6.

68. Y. Wei, W. Tong, C. Wise, X. Wei, K. Armbrust, M. B. Zimmt, "Dipolar Control of Monolayer Morphology: Spontaneous SAM Patterning," *J. Am. Chem. Soc.* **2006**, 128, 13362-33.

69. Y. Wei, W. Tong, M. B. Zimmt, "Self-Assembly of Patterned Monolayers with Nanometer Features: Molecular Selection Based on Dipole Interactions and Chain Length," *J. Am. Chem. Soc.* **2008**, 130, 3399-3405.

70. W. Tong, Yanhu Wei, K.W. Armbrust, M. B. Zimmt "Dipolar Side Chain Control of Monolayer Morphology: Symmetrically Substituted 1,5-(mono and diether) Anthracenes at the Solution - HOPG Interface," *Langmuir*, **2009**, 25, 2913-2923.

71. W. Tong, X. Wei, Xiaoliang, M. B. Zimmt "Dipolar Control of Monolayer Morphology on Graphite: Self-Assembly of Anthracenes with Odd Length Diether Side Chains," *J. Phys. Chem. C* **2009**, 113, 17104-13.

72. Y. Wang, J. C. Gildersleeve, A. Basu, M. B. Zimmt "Photo- and Biophysical Studies of Lectin-Conjugated Fluorescent Nanoparticles: Reduced Sensitivity in High Density Assays," *J. Phys. Chem. B* **2010**, 114, 14487-94.

73. W. Tong, Y. Xue, M. B. Zimmt "Morphology Control and Monolayer Patterning with CF₂ Groups: An STM Study," *J. Phys. Chem. C* **2010**, 114, 20783-92.

74. Y. Xue, M. B. Zimmt, "Tetris in Monolayers: Patterned Self-Assembly Using Side Chain Shape," *Chem. Commun.* **2011**, 47, 8832-34. *

6. Proposals and Funding

Current

NSF: "1-D and 2-D Patterning of Strongly Physisorbed Monolayers on HOPG: Strategies and Template Applications ". [Funded: 3 year - \$425,00 total costs 2011-2014] *

Invited Lectures (last 3 years listed)

April 2009	University of Massachusetts, Amherst
December 2009	Wesleyan University
June 2011	94 th Canadian Chemistry Conference *

7. Service:

i) To the University:

Chemistry Department Graduate Admissions Committee,	1987-89
Freshman Advisor,	1989-95, 01-05, 11 *
Sophomore Advisor,	1990-95, 97-07, 11*
University Disciplinary Committee,	1991-95
NSF Summer REU Program in Chemistry; Coordinator,	1993
Undergraduate Laboratory Director Search Committee,	1994
Undergraduate Sciences Building Design Committee,	1994-95
University Teaching Awards Selection Committee,	1994-96
Sigma Xi Department Representative	1993-11 *
Sigma Xi Governing Board	2003-10
Material Research Council,	1996, 97
Affirmative Action Monitoring Committee, Alternate	1996-99
Graduate Recruiting Committee,	1997-01
Undergraduate Admissions Liaison	1990-03, 04-08
Parent's Weekend Seminar	1998
Cub Camp Presentation	1998
Director of Graduate Studies, Chemistry	1998-01, 06-10
MacMillan Oversight Committee	1999-07, 11*
Dean of the College: Search Committee	2000
Faculty Search Committee, Organic Chemistry, Chair	2001-02, 03
Promotion Committee for Peter M. Weber	2001
Reappointment Committee for Amit Basu	2001
Goldwater Scholarship Selection Committee	2002-05
Sheridan Center Advisory Board	2002-11 *
Sheridan Center, Department Faculty Liaison	2002-05
Health Careers Advisory Committee	2003-05
Wise Affinity Group – Advisor (Chemistry)	2004-05
Science Diversity Workgroup: Dean of the College	2004-05
Campus Life Advisory Board	2005-07
Faculty Search Committee, Lecturer, Chair	2005
University Research Advisory Board	2006-09
Annual Review Trenkle	Jan 2006
Reappointment Review Trenkle	April 2006
Tenure and Promotion Committee: Shana O. Kelley	2006
STEM – Organization of Chemistry Presentation	2005-07
STEM – After Dinner Presentation	2006
Undergraduate recruiting: NYC	April 2006-07
Potter Prize Committee - Chemistry	2006
Chemistry DUG - advisor	2008-10
Graduate Student Poster Session - organizer	2006-11*
Graduate Student January Orientation – organizer	2006-11*
Nanochemistry search committee – chair, cochair	2007-09
Engineering Nanoscience search committee	2008-09
Annual Review Bazemore-Walker	2007-09
DoF Conflict of Interest Review Board	2009-10
Graduate Program Self Study, Decennial Review, Co-chair	2009
Chemistry Department Chair	2010- *

ii) Outside the University

NSF Research Experience for Undergraduates Advisory Panel	1991
Organizing Committee, 8 th Inter-American Photochemical Society Meeting	1997

Organizing Committee, 17 th IUPAC Symposium on Photochemistry	1998
Authored Funded NSF Travel Funds Proposal for 17 th IUPAC Symposium	1998
Organizing Committee, American Chemical Society Meeting: Boston, Division of Organic Chemistry	1998
Session Chair, American Chemical Society Meeting: Dallas,	1998
Session Chair, Electron Donor Acceptor Gordon Conference, August	1998
Session Chair, American Chemical Society Meeting: Boston	1998
NSF Career Award Advisory Panel – Organic Chemistry	2002
Symposium Organizer, American Chemical Society National Meeting (2005) Charge Transfer, Division of Physical Chemistry	2003-05
Electron Donor-Acceptor Interaction Gordon Conference, Co-chair	2004-06
DOE External Review – Chemistry Department at Brookhaven	April 2006
American Chemical Society: Advisory Board – Journal of Physical Chemistry	2006-09
DOE Early Career Young Investigator Review	2009
NSF Chemistry Division, Panel Review	2009

8. Academic Honors: (since 1987)

Camille and Henry Dreyfus Distinguished New Faculty Awardee	1987-92
Presidential Young Investigator Award	1989-95
Camille and Henry Dreyfus Teacher Scholar Awardee	1993-98
Phillip T. Bray Award for Excellence in Teaching, Brown University	1994, 2005
National Science Foundation Grant Extension for Special Creativity	1995
Grammaticakis-Neumann Prize: Swiss Section, European Photochemical Assoc.	1996
Barrett Hazeltine Citation for Teaching Excellence from the Senior Class	1998, 2005
Electron Donor-Acceptor Gordon Conference, Chair	2006
UCS Award for Teaching Excellence	2004, 2006
Royce Professor for Teaching Excellence	2011-14*

Teaching:

2008	Chemistry 2410	(sabbatical, graduate physical organic)
2009	Chemistry 1450, 2870	(advanced organic chemistry, colloquium-grad prof. skills)
2010	Chemistry 0350, 0350	(introductory organic chemistry, spring and summer)
2011	Chemistry 0350 (SP), 0350 (SU), 0100 (FA), 0330 (FA), 2870 (FA)*	

Graduate Students (2 M.S., 14 Ph.D., 3 current, last three years listed)

Yi Xue	Current *
Jian He	Current *
Yan Yang	Current *

Undergraduate Research Students (35 total, last three years listed)

Emily Ebert	2007-09
Adam Lewin	2007-09
Colin Horowitz	2009-10
Steven Cai	2009
Min Kyoung Kim	2010-11 *
Nicholas Lourie	2011*

11. Updated: December 2011