February 27, 2009

ROBERT M. DICKSON
CURRICULUM VITAE

Educational Background:

B.A.	Chemistry	1991	Haverford College
Ph.D.	Physical Chemistry	1996	University of Chicago

Employment History:

Graduate Teaching Assistant, University of Chicago	1992-1993
Postdoctoral Fellow, Chemistry, UC-San Diego	1996-1998
Assistant Professor, Chemistry & Biochemistry, Georgia Tech	1998-2003
Associate Professor, Chemistry & Biochemistry, Georgia Tech	2003-2006
Full Professor, Chemistry & Biochemistry, Georgia Tech	2006-present

Current Fields of Interest:

Single molecule spectroscopy, fluorescence and Raman microscopy, laser spectroscopy and dynamics, nanoparticle synthesis and photophysics, optical data storage, single molecule electroluminescence and nanoscale/molecular electronics, biolabeling.

Honors and Awards:

- Outstanding Achievement in Research Program Development Award, April 2006.
- Visiting Lecturer, National Science Council, Taiwan, December 2003.
- Camille Dreyfus Teacher-Scholar Award, 2002.
- Blanchard Assistant Professor, 2001.
- Alfred P. Sloan Foundation Fellow, March, 2001.
- National Science Foundation, Faculty Early CAREER Award, February 2000.
- Research Corporation, Research Innovation Award, September 1999.
- Phi Beta Kappa, 1991.

Current Funding:

- **National Institutes of Health, General Medical Sciences** – "R01-GM068732 – Dendrimer- and peptide-encapsulated fluorescent Ag nanodots" – Role: PI/PD
- **Vassar-Woolley Foundation** – Role PI/PD.
- **National Institutes of Health** – "R01-GM086195 - Multifunctional fluorogenic Ag nanodots for dynamics intracellular single molecule imaging" – Role: PI/PD

Publications:

61. J. Yu, S. Choi, and R. M. Dickson, "Shuttle-based fluorogenic silver cluster Biolabels", *Angew. Chem. Int. Ed.*, **48**, 324-326, (2009).
60. S. A. Patel, C. I. Richards, J.-C. Hsiang, and R. M. Dickson, "Water-soluble Ag Nanoclusters Exhibit Strong Two-Photon-induced Fluorescence", *J. Amer. Chem. Soc.*, **130**, 11602-11603 (2008).

59. J. Yu, S. Choi, C. I. Richards, Y. Antoku, and R. M. Dickson, "Live Cell Surface Labeling with Fluorescent Ag Nanocluster Conjugates", *Photochemistry and Photobiology*, **84**, 1435-1439, (2008).
58. D. Lee, V. R. Erigala, M. Dasari, J. Yu, R. M. Dickson, and N. Murthy, "Detection of hydrogen peroxide with chemiluminescent micelles", *Int J Nanomed.*, (2008) in press.
57. C. I. Richards, S. Choi, J-C. Hsiang, Y. Antoku, T. Vosch, A. Bongiorno, Y.-L. Tzeng, and R. M. Dickson, "Oligonucleotide-Stabilized Ag Nanocluster Fluorophores", *J. Amer. Chem. Soc.*, **130,** 5038-9 (2008).
56. C. M. Ritchie, K. R. Johnsen, J. R. Kiser, Y. Antoku, R. M. Dickson, and J. T. Petty, "Ag Nanocluster Formation Using a Cytosine Oligonucleotide Template", *J. Phys. Chem. C*, **111**, 175 (2007).
55. J. Yu, S. A. Patel, and R. M. Dickson, "In vitro and Intracellular Production of Peptide-Encapsulated Fluorescent Silver Nanoclusters", *Angew. Chem. Int. Ed.*, **46**, 2028-2030 (2007).
54. T. Vosch , Y. Antoku , J-C. Hsiang , C. Richards , J. I. Gonzalez, and R. M. Dickson, "Strongly Emissive Individual DNA-encapsulated Ag Nanoclusters as New Single Molecule Fluorophores", *Proc. Nat. Acad. Sci. USA* **104**, 12616-12621 (2007).
53. J. Zheng, P. R. Nicovich, and R. M. Dickson, "Highly Fluorescent Noble Metal Quantum Dots", *Annual Review of Physical Chemistry, New Fluorescence Probes*, **58**, 409 (2007).
52. J. I. Gonzalez, T. Vosch, and R. M. Dickson, "Charge Injection into Discrete States of Individual Electroluminescent Au Nanoclusters", *Phys. Rev. B*, **74**, 235404 (2006).
51. J. I. Gonzalez, T. Vosch, and R. M. Dickson, "Asymmetric Electrode-Molecule Transport Dynamics Tracked by Nanoscale Electroluminscence", *Phys. Rev. B*, **74**, 064305 (2006).
50. L. A. Peyser-Capadona, J. Zheng, J. I. Gonzalez, T.-H. Lee, S. A. Patel, and R. M. Dickson, "Nanoparticle-Free Single Molecule Anti-Stokes Raman Spectroscopy", *Phys. Rev. Lett.* **94**, 058301 (2005).
49. T-H. Lee, J. I. Gonzalez, J. Zheng, and R. M. Dickson "Single molecule optoelectronics", *Accounts Chem. Res.*, **38**, 534-541 (2005).
48. J. I. Gonzalez, T.-H. Lee, M. D. Barnes, Y. Antoku, and R. M. Dickson, "Quantum mechanical single-gold-nanocluster electroluminescent light source at room temperature", *Phys. Rev. Lett.*, **93**, 147402 (2004).
47. P. Kumar, M. D. Dadmun, A. Mehta, R. M. Dickson, and M. D. Barnes, "Effect of solvent on the collapse and orientation of conjugated polymer chains", *Poly. Prepr.*, **45**, 165-166 (2004).
46. J. Zheng, C. Zhang, and R. M. Dickson, "Highly fluorescent, water-soluble, size-tunable gold quantum dots", *Phys. Rev. Lett.*, **93**, 077402 (2004).
45. T.-H. Lee and R. M. Dickson, "Nanocomputing with Nanocrystals", *Optics and Photonics News*, **15**, 22-27 (2004).
44. J. T. Petty, J. Zheng, N. V. Hud, and R. M. Dickson, "DNA Templated Ag Nanocluster Formation", *J. Amer. Chem. Soc.*, **126**, 5207-5212 (2004).
43. P. Kumar, T.-H. Lee, A. Mehta, B. G. Sumpter, R. M. Dickson, and M. D. Barnes, "Photon antibunching from oriented semiconducting polymer nanostructures", *J. Amer. Chem. Soc.*, **126**, 3376-3377 (2004).
42. T.-H. Lee, P. Kumar, A. Mehta, K. Xu, R. M. Dickson, and M. D. Barnes, "Oriented Semiconducting Polymer Nanostructures as On-demand Room-temperature Single-photon Sources", *Appl. Phys. Lett.* **85**, 100-102 (2004).

41. T.-H. Lee, C. R. Hladik, and R. M. Dickson, “Facile, on-demand electronic nanodevice fabrication from photo and electro-active silver oxide”, *Appl. Phys. Lett.*, **84**, 118-120 (2004).
40. T. –H. Lee and R. M. Dickson, “Single Molecule LEDs from Nanoscale Electroluminescent Junctions”, *J. Phys. Chem. B*, **107**, 7387-7390 (2003).
39. J. Zheng, J. T Petty, and R. M. Dickson, “High Quantum Yield Blue Emission from Water-Soluble Au_8 Nanodots”, *J. Amer. Chem. Soc.*, **125**, 7780-7781 (2003).
38. T.-H. Lee, C. R. Hladik, and R. M. Dickson, “Asymmetric photoconductivity within nanoscale break junctions”, *NanoLett.*, **3**, 1561-1564 (2003).
37. P. Kumar, A. Mehta, M. D. Dadmun, J. Zheng, L. Peyser, A. P. Bartko, R. M. Dickson, T. Thundat, B. G. Sumpter, and M. D. Barnes, “Narrow-bandwidth spontaneous luminescence from oriented semiconducting polymer nanostructures”, *J. Phys. Chem. B*, **107**, 6252-6257 (2003).
36. A. Mehta, P. Kumar, M. D. Dadmun, J. Zheng, R. M. Dickson, T. Thundat, B. G. Sumpter, and M. D. Barnes, “Oriented Nanostructures from Single Molecules of a Semiconducting Polymer: Polarization Evidence for Highly Aligned Intramolecular Geometries”, *NanoLett.*, **3**, 603-607 (2003).
35. A. Mehta, T. Thundat, M. D. Barnes, V. Chabra, R. Bhargava, A. P. Bartko, and R. M. Dickson, “Size-correlated spectroscopy and imaging of rare-earth-doped nanocrystals”, *Appl. Opt.*, **42**, 2132-2139 (2003).
34. T.-H. Lee and R. M. Dickson, "Discrete two-terminal single nanocluster quantum optoelectronic logic operations at room temperature", *Proc. Nat. Acad. Sci. USA*, **100**, 3043-3046 (2003).
33. A. Mehta, P. Kumar, J. Zheng, R. M. Dickson, B. Sumpter, and M. D. Barnes, “Oriented luminescent nanostructures from single molecules of conjugated polymers”, Mater. Res. Soc. Symp. Proc., **771**, 301-305 (2003).
32. J. Zheng and R. M. Dickson, “Individual Water-Soluble Dendrimer-Encapsulated Silver Nanodot Fluorescence”, *J. Amer. Chem. Soc.*, **124**, 13982-13983 (2002).
31. T.-H. Lee, J. I. Gonzalez, and R. M. Dickson, “Strongly Enhanced Field Dependent Single Molecule Electroluminescence”, *Proc. Nat. Acad. Sci. USA*, **99**, 10272-10279 (2002).
30. A. P. Bartko, K. Xu, and R. M. Dickson, “Three-Dimensional Single Molecule Rotational Diffusion in Glassy State Polymer Films”, *Phys. Rev. Lett.*, **89**, 026101/1-026101/4 (2002).
29. L. A. Peyser, T.-H. Lee, and R. M. Dickson, “Mechanism of Ag_n Nanocluster Photoproduction from Silver Oxide Films”, *J. Phys. Chem. B*, **106**, 7725-7728 (2002).
28. A. P. Bartko, L. A. Peyser, R. M. Dickson, A. Mehta, T. Thundat, R. Bhargava, and M. D. Barnes, “Observation of dipolar emission patterns from isolated Eu^{3+}:Y_2O_3 doped nanocrystals: New evidence for single ion luminescence”, *Chem. Phys. Lett.*, **358**, 459-465 (2002).
27. L. A. Peyser, T.-H. Lee, and R. M. Dickson, “Harnessing Single Particle Dynamics in Silver Nanomaterials”, *Proc. SPIE-Int. Soc. Opt. Eng.*, **4636**, 81-87 (2002).
26. L. A. Peyser, A. E. Vinson, A. P. Bartko, and R. M. Dickson, “Photoactivated Fluorescence from Individual Silver Nanoclusters”, *Science*, **291**:103-106 (2001).
25. J. C. Quirin, A. P. Bartko, R. M. Dickson, and J. M. Torkelson, “Signature of nanoscale dynamic heterogeneity in polymers near the glass transition: non-Gaussian displacement distribution from single-molecule probe diffusion studies”, *Polym. Prepr. Amer. Chem. Soc.*, **42**, 174 (2001).

24. R. M. Dickson and L. A. Lyon, "Unidirectional Plasmon Propagation in Metallic Nanowires", *J. Phys. Chem. B*, **104**, 6095-6098 (2000).
23. A. P. Bartko and R. M. Dickson, "Imaging Three-Dimensional Orientations of Single Molecules", *J. Phys. Chem. B*, **103**, 11237-11241 (1999).
22. A. P. Bartko and R. M. Dickson, "Three-Dimensional Orientations of Polymer-Bound Single Molecules", *J. Phys. Chem. B* **103**, 3053-3056 (1999).
21. "Nano-Sized Optical Fluorescence Labels and Uses Thereof", Patent pending. *Licensed by Invitrogen Corporation.*
20. "Raman-enhancing and Nonlinear Optically Active Nano-sized Labels and Uses Thereof", Patent pending. *To be licensed by Invitrogen Corporation.*
19. "Nanogold Emission with Large Stokes Shifts", Patent applied for.
18. US Patent No. 6,539,156: "Apparatus and method of optical transfer and control in plasmon supporting metal nanostructures," Issued March 25, 2003.
17. M. Cordonnier, D. Uy, R. M. Dickson, K. E. Kerr, Y. Zhang, and T. Oka, "Selection rules for nuclear spin modifications in ion-neutral reactions involving H_3^+", *J. Chem. Phys.* **113**, 3181-3193 (2000).
16. R. M. Dickson, D. J. Norris, and W. E. Moerner, "Simultaneous Imaging of Individual Molecules Aligned Both Parallel and Perpendicular to the Optic Axis", *Phys. Rev. Lett.* **81**, 5322-5325 (1998).
15. R. M. Dickson, A. B. Cubitt, R. Y. Tsien, and W. E. Moerner, "On/Off Blinking and Switching Behaviour of Single Green Fluorescent Protein Molecules", *Nature*, **388**, 355-358 (1997).
14. R. M. Dickson, D. J. Norris, Y. L. Tzeng, and W. E. Moerner, "Three Dimensional Imaging of Single Molecules Solvated in the Pores of Polyacrylamide Gels", *Science*. **274**, 966-969 (1996).
13. W. E. Moerner, E. J. G. Peterman, S. Brasselet, S. Kummer, and R. M. Dickson. "Optical methods for exploring dynamics of single copies of green fluorescent protein", *Cytometry*. **36**, 232-238 (1999).
12. S. Kummer, R. M. Dickson, and W. E. Moerner, "Probing Single Molecules in Polyacrylamide Gels", *Proc. SPIE-Int. Soc. Opt. Eng.*, **3273**, 165-173 (1998).
11. R. M. Dickson and T. Oka, "Variation of Intermolecular Interaction and Local Lattice Distortion of Parahydrogen Crystals upon Vibrational Excitation", *Phys. Rev. B.* **57**, 950-957 (1998).
10. R. M. Dickson, T. Momose, T. J. Byers, and T. Oka, "High Resolution Spectroscopy of the Impurity Induced $Q_3(0)$ Transition of Solid Parahydrogen" *Phys. Rev. B.* **57**, 941-950 (1998).
9. W. E. Moerner, R. M. Dickson, and D. J. Norris, "Single Molecule Spectroscopy and Quantum Optics in Solids", *Adv. Atom., Molec., and Opt. Physics*. **38**, 193-236 (1997).
8. W. E. Moerner, R. M. Dickson, and D. J. Norris, "Single Molecule Nanophotonics in Solids. *Mat. Sci. and Eng. B.* **48**, 169-183 (1997).
7. R. M. Dickson, D. J. Norris, Y. L. Tzeng, R. Sakowicz, L. S. B. Goldstein, and W. E. Moerner, "Single Molecules Solvated in Pores of Polyacrylamide Gels", *Mol. Cryst. Liq. Cryst.*, **291**, 31-34 (1996).
6. R. M. Dickson, T. J. Byers, and T. Oka, "Direct Measurement of the Crystal Field Splitting of Isolated J=1 Impurities in Solid Parahydrogen", *J. Low Temp. Phys.* **102,** 241-243 (1996).
5. R. M. Dickson and T. Oka, "Observation of the $S_3(0)$ Transition in Solid Parahydrogen and a Theory of Solid State Rovibrational Linewidths", *J. Phys. Chem.* **99**, 2617-2627 (1995).

4. T. Momose, K. E. Kerr, D. P. Weliky, C. M. Gabrys, R. M. Dickson, and T. Oka, "Charge induced H_2 Spectrum in γ-ray irradiated para-H_2 crystals", *J. Chem. Phys.* **100**, 7840-7843 (1994).
3. D. P. Weliky, T. J. Byers, K. E. Kerr, T. Momose, R. M. Dickson, and T. Oka, "High-resolution laser spectroscopy of the $Q_V(0)$ transitions in solid parahydrogen", *Appl. Phys. B.* **59**, 265-276 (1994).
2. P. R. Rablen, M. A. Deuber, A. C. Lim, R. M. Dickson, and C. E. Wintner, "Cyclic Ketals of 9-Fluorenone", *J. Chem. Ed.*, **68**, 796-798 (1992).
1. U.S. Patent No. 6,046,925. "Photochromic Fluorescent Proteins and Optical Memory Storage Devices Based on Fluorescent Proteins." Issued April 4, 2000.

Invited Talks (1999-present):

101. University of Alabama, Chemistry Department, Huntsville, AL, November 7, 2008
100. NSF-MEXT Young Researchers Exchange Program, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki, Japan, October 7, 2008
99. International workshop on organic and organic/inorganic composite optoelectronic materials and devices 2008 Hangzhou, China, June 2008
98. Invitrogen – Molecular Probes, Eugene, OR, March 17, 2008
97. NSF-MEXT Symposium 2008, Northwestern University, Evanston, IL, March 11, 2008
96. Frontiers in Optics 2007, Optical Society of America Annual Meeting, San Jose, CA, September 2007
95. American Chemical Society Fall Meeting, Boston, MA, August 2007
94. University of North Carolina, Charlotte, Center for Biomedical Engineering Systems Bio-Imaging Symposium, Charlotte, NC, March 2007
93. University of California, Chemistry & Biochemistry Dept., Los Angeles, CA, February 2007
92. First Asian Spectroscopy Conference, Bangalore, India, 29 January – 3 February 2007
91. University of Pittsburgh, Chemistry Department, Pittsburgh, PA, December 2006
90. Howard Hughes Medical Institute, Janelia Farm Research Campus, Ashburn, VA, 30 November – 1 December 2006
89. Toronto Discovery District Bioimaging Symposium, Toronto, Ontario, Canada, November 2006
88. Gordon Research Conference, Electron Donor Acceptor Interactions, Newport, RI, August 2006
87. Gordon Research Conference - Single Molecule Approaches to Biology, New London, NH, June 2006
86. Zhejiang University, Polymer Science and Engineering Dept., Hangzhou, China, June 2006
85. University of California, Santa Barbara & California Nanosystems Institute, Santa Barbara, CA, May 2006
84. NIH Live Cell Imaging Meeting, Bethesda, MD, April 2006
83. PITTCON, Orlando, FL, March 2006
82. North Carolina State University, Physics Department, Raleigh, NC, February 2006
81. NSF Center for Biophotonics Science & Technology, Sonoma, CA, December 2005
80. University of Oklahoma, Chemistry & Biochemistry Dept., Norman, OK, November 2005
79. Spelman College, Chemistry Department, Atlanta, GA, November 2005
78. Vanderbilt University, Chemistry Department, Nashville, TN, October 2005

77. University of Massachusetts, Chemistry Department, Amherst, MA, October 2005
76. Florida State University, Chemistry Department, Tallahassee, FL, September 2005
75. American Chemical Society Fall Meeting, Washington DC, August 2005
74. SPIE Annual Meeting, San Diego, CA, August 2005
73. Single Molecule Experiment and Theory, Telluride, CO, August 2005
72. Microscopy and Microanalysis Annual Meeting, Honolulu, HI, July 2005
71. Molecular Plasmonics, Jena, Germany, May 2005
70. Department of Energy Workshop on Single Molecules, Bethesda, MD, April 2005
69. Intelligence Nanotechnology Meeting, Washington DC, March 1, 2005
68. Molecular Probes, Eugene OR, November 2004
67. Columbia University, New York, NY, November 2004
66. Applied Bio Systems, San Francisco, CA, October 2004
65. Pierce Biotechnology, Milwaukee, MI, October 2004
64. American Chemical Society, Annual meeting, Philadelphia, PA, August 2004
63. Single Photon Sources, Optical Society of America Annual Meeting, San Francisco, CA, October 12, 2004
62. ARDA/ITIC Quantum Cryptography Research Conference, September 1, 2004
61. Multiphoton Excitation Users Meeting, Emory University, August 20, 2004
60. Single Photon Sources, CLEO/QELS, San Francisco, CA, May 20, 2004
59. Physical Chemistry of Interfaces and Nanomaterials III, SPIE Annual Meeting, Denver, CO, August 2004
58. Gordon Research Conference – Bioanalytical Sensors, Queens College, Oxford, UK, July 2004
57. University of Minnesota, Chemical Engineering and Materials Science, February 10, 2004
56. National Sun Yat Sen University, Optoelectronics Department, KaoHsiung, Taiwan, December 5, 2003
55. Institute of Chemistry, Academia Sinica, Taipei, Taiwan, December 4, 2003
54. National Tsing Hwa University, Chemistry Department, Hsinjhu, Taiwan, December 3, 2003
53. National Taiwan University/Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan, December 2, 2003
52. University of California San Diego, Chemistry Department, November 25, 2003
51. Yale University, Chemistry Department, November 4, 2003
50. Duke University, Chemistry Department, October 31, 2003
49. Emory University, Chemistry Department, September 22, 2003
48. American Chemical Society, Annual Meeting, New York, NY, September 2003
47. Unconventional Photoactive Systems: UPS'03, Leuven, Belgium, September 2003
43. Physical Chemistry of Interfaces and Nanomaterials II, SPIE Annual Meeting, San Diego, CA, August 2003
41. Gordon Research Conference – Photochemistry, Mount Holyoke College, South Hadley, MA, July 2003
40. American Chemical Society, Annual Meeting, New Orleans, LA, April 2003
41. American Physical Society, Annual Meeting, Austin TX, March 2003
39. Kansas State University, Chemistry Department, January 30, 2003
38. University of Kansas, Chemistry Department, January 29, 2003
37. University of California – Berkeley, Chemistry Department, January 21, 2003
36. Hewlett-Packard, Advanced Technology Seminar, Corvallis, OR, November 13, 2002

35. Stanford University, Chemistry Department, November 11, 2002
34. Duke University, Chemistry Department, November 1, 2002
33. University of North Carolina – Chapel Hill, Chemistry Department, October 31, 2002
32. University of Chicago, James Franck Institute, October 22, 2002
32. Harvard University, Chemistry Department, October 10, 2002
30. Physical Chemistry of Interfaces and Nanomaterials, SPIE Annual Meeting, Seattle, WA, July 2002
29. Gordon Research Conference - Electronic Processes in Organic Materials, Newport, RI, July 2002
28. Advances in Assays, Molecular labels, signaling & detection, Cambridge Healthtech Institute's 6th annual meeting, Washington DC, June 2002
27. Conference on Lasers and Electro-Optics (CLEO 2002), Long Beach, CA, May 2002
26. University of Washington - Seattle, Chemistry Department, April 2002
25. American Chemical Society, 223rd National Meeting, Orlando, FL, April 2002
24. University of Illinois - Urbana-Champaign, Chemistry Department, March 13, 2002
23. University of Maryland, Chemistry Department, February 13, 2002
24. University of Texas - Austin, Chemistry Department, February 8, 2002
23. Photonics West, International Society for Optical Engineering (SPIE). January 2002
22. National Academy of Science: Thirteenth Symposium on Frontiers of Science, November 2001
21. Optical Society of America, 2001 Fall Meeting, Long Beach, CA, October 2001
20. National Taiwan University, Department of Chemistry, Taipei, Taiwan, June 2001
19. University of Pittsburgh, Chemistry Department, May 2001
19. Carnegie Mellon University, Data Storage Systems Center, Pittsburgh, PA, May 2001
18. Carnegie Mellon University, Chemistry Department, Pittsburgh, PA, May 2001
17. American Chemical Society, 221st National Meeting, San Diego, CA, April 2001
16. Boston College, Chemistry Department, Boston, MA, March 2001
15. Kyoto University, Chemistry Department, Kyoto, Japan, March 2001
14. 4th NAIR Workshop Ultrahigh-Density Optical Storage and Related Techniques, Tsukuba, Japan, March 2001
13. American Physical Society, March 2001 National Meeting, Seattle, WA, March 2001
12. Electrochemical Society, 199th Meeting, Washington, DC, March 2001
11. Materials Research Society, 2000 Fall Meeting, Boston, MA, November 2000
10. Materials Research Society, 2000 Fall Meeting, Boston, MA, November 2000
9. University of Notre Dame, Chemistry Department, Notre Dame, IN, November 2000
8. University of Florida, Physics Department, Gainesville, FL, November 2000
7. Federation of Analytical Chemists and Spectroscopy Society, Nashville, TN, September 2000
6. Oak Ridge National Laboratory, Knoxville, TN, March 2000
5. Quantitative Challenges in the Post-Genomic Sequence Era, Division of Biological Physics, American Physical Society, January 2000
4. Inter-American Photochemistry Society, 11th Annual Meeting, Clearwater Beach, FL, January 2000
3. Knowledge Foundation, Emerging Single Molecule Methods, Boston, MA, August 1999
2. Nations' Symposium: Frontiers in Photochemistry, Atlanta, GA, May 1999
1. Atlanta Area Chemical Physics Seminar, Atlanta, GA, April 1999

Contributed Talks (1999-Present):

19. Gordon Research Conference – Clusters, South Hadley, MA, 29 June-3 August 2007
18. Gordon Research Conference – Clusters, Colby College, Maine, August 2005
17. Materials Research Society, 2005 Spring Meeting, San Francisco, CA, April 2005
16. American Physical Society, Annual Meeting, Los Angeles, CA, April 2005
15. American Chemical Society, Annual Meeting, Philadelphia, PA, August 2004
14. Materials Research Society, 2003 Fall Meeting, Boston, MA, December 2003
13. Gordon Research Conference – Clusters, Connecticut College, New London, CT, July 2003
12. Materials Research Society, 2003 Spring Meeting, San Francisco, CA, April 2003
11. Materials Research Society, 2002 Spring Meeting, San Francisco, CA, April 2002
10. Georgia Tech 2nd Annual Nanotechnology Conference, Atlanta, GA, September 2001
9. American Chemical Society (2 papers), 221st National Meeting, San Diego, CA, April 2001
8. American Physical Society, March 2001 National Meeting, Seattle, WA, March 2001
7. Optical Society of America, 2000 Annual Meeting, Providence, RI, October 2000
6. Rocky Mountain Conference on Analytical Chemistry, Broomfield, CO, July 2000
5. Conference on Lasers and Electro-Optics/Quantum Electronics Laser Science (CLEO/QELS) 2000, San Francisco, CA, May 2000
4. American Physical Society (2 papers), Minneapolis, MN, March 2000
3. American Chemical Society, 218th National Meeting, New Orleans, LA, August 1999
2. International Conference on Photochemistry, Durham, NC, August 1999
1. American Physical Society, Centennial Meeting, Atlanta, GA, March 1999

Synergistic Activities:

Member and Participant, NIH – Nanotechnology study section, January 2009
Member and Participant, NIH – Nanotechnology study section, September/October 2008
Organizer, NIH Grantee Workshop High Resolution Cellular Imaging, Atlanta, GA, December 2007
Member and Participant, NIH – Nanotechnology study section, October 2007
Ad-hoc Reviewer and Participant, NIH – Bioengineering Partnership study section, May 2006
Organizer, 14th annual Bud Suddath Symposium in Biosciences, Atlanta, GA, April 2006
Mentor/Career Coach, GT ADVANCE Program 2005-
External Oversight Committee Member, South Carolina INBRE Program 2005-
Ad-hoc Reviewer and Participant, NIH – Nanotechnology study section, July 2005
Symposium Organizer, Nanophotonic Materials, Nonlinear Optics and Spectroscopy, American Physical Society, 2005 Annual Meeting, Los Angeles, CA, March 2005
Ad-hoc Reviewer and Participant, NIH – Nanotechnology study section, October 2004
Ad-hoc Reviewer and Participant, NIH – NHLBI study section, June 2004
Program Committee and Session Chair, Physical Chemistry of Interfaces and Nanomaterials II, SPIE Annual Meeting, San Diego, CA, August 2003
Ad-hoc Reviewer and Participant, NIH – BECM study section, June 2003
Reviewer and Participant, NSF Review Panel, May 2003

Ad-hoc Reviewer and Participant, NIH – BBCB study section, February 2003

Organizer, Functional Nanostructured Materials through Multiscale Assembly and Novel Patterning Techniques, Materials Research Society Spring Meeting, San Francisco, CA, April 2002

Organizer and Presenter, "*High Resolution Light Microscopy*" at the American Physical Society, Indianapolis, March 2002 (Division of Molecular, Optical and Atomic Physics)

Ad-hoc Reviewer and Participant, NIH – BECM study section, June 2002

Session Chair, American Chemical Society, 221st National Meeting, San Diego, CA, April 2001

Session Chair, Electrochemical Society, 199th Meeting, Washington, DC, March 2001

Session Chair, Materials Research Society, 2002 Spring Meeting, San Francisco, CA, April 2002

Session Chair, International Conference on Photochemistry, Durham, NC, August 1999

Reviewer for the following journals and granting agencies:

Physical Review Letters (~1/year)
Science (~1/year)
Nature Materials (~2/year)
Journal of Physical Chemistry (~5/yr)
Langmuir (~1/yr)
Optics Letters (~1/yr)
Chemistry of Materials (~3/yr)
Journal of the American Chemical Society (~5/yr)
Chemical Physics Letters (~2/yr)
National Science Foundation (~5 Proposals/yr)
National Institutes of Health (~10 Proposals/yr)
ACS – PRF (~2 Proposals/yr)