### John D. Simon

Office of the President Lehigh University 28 University Drive Bethlehem, PA 18015

#### Education

B. A.	Williams College	Williamstown, Massachusetts	1979	
M. A.	Harvard University	Cambridge, Massachusetts	1981	
Ph. D.	Harvard University	Cambridge, Massachusetts	1983	
Institute for Management in Leadership and Education				
	Harvard University	Cambridge, Massachusetts	2007	

#### **Professional Positions**

2015-	President	Lehigh University
2011-2015	Executive Vice President and Provost	University of Virginia
2011-2015	Robert C. Taylor Professor	University of Virginia
2005-2011	Vice Provost for Academic Affairs	Duke University
1999-2004	Chair, Department of Chemistry	Duke University
2001-2011	Research Professor in Ophthalmology	Duke University Medical Center
1998-2011	George B. Geller Professor	Duke University
1999-2011	Professor of Biochemistry	Duke University Medical Center
1990-1997	Professor	UCSD
1989-1990	Visiting Associate Professor	University of Colorado, Boulder
1988-1990	Associate Professor	UCSD
1985-1988	Assistant Professor	UCSD
1983-1985	Postdoctoral Fellow	UCLA (M. A. El-Sayed)

#### **Honors and Awards**

IMP Faculty Award, University of Virginia, 2013 Photon Award, American Society for Photobiology, 2008 William J. Maschke, Jr. Memorial Award, Duke University, 2008 North Carolina ACS Section Distinguished Speaker Award, 2006 Elected Fellow of the American Physical Society, 2003 International Scientist of the Year, International Biographical Centre of Cambridge, England, 2002 Elected Fellow of the American Association for the Advancement of Science, 2000 Hans A. Schaeffer Award, Society of Cosmetic Chemists, 1999 Professor of the Year, Sigma Chi Fraternity, UCSD, 1994 Fresenius Award in Pure and Applied Chemistry, 1992 Camille and Henry Dreyfus Teacher Scholar, 1990-1995 Alfred P. Sloan Research Fellow, 1988-1990 Presidential Young Investigator Award NSF, 1985-1990 Celanese Graduate Fellow, 1981-1982 Charles R. Sanger Fellow, 1980-1981 Elected to Sigma Xi, 1979 American Institute of Chemists Award, 1979

### **Editorial Positions**

Advisory Board, Journal of Physical Chemistry, 1990-1995, 1999-2004 Advisory Board, Review of Scientific Instruments 1991-1993 Advisory Board, Biopolymers 1991 – 2001, 2007-Advisory Board, Institute for Nonlinear Studies (Springer-Verlag Series) 1991 – 1998 Associate Editor, Photochemistry and Photobiology, 2002-2004 Editor-in-Chief, Photochemistry and Photobiology, 2004-2008 Advisory Board, Pigment Cell and Melanoma Research. 2008-2013 Advisory Board, Photochemistry and Photobiology, 2009-

### **Professional Organizational Duties**

Chair, West Coast Spectroscopy Association Meeting, 1991 NIH Site Visit Panel of Minority Research Programs at Selma University, 1991 NIH Site Visit: Regional Laser Center at the University of Pennsylvania, 1991 Member of West Coast Spectroscopy Association Advisory Board, 1989 - 1993 NSF-PYI Selection Committee, 1991 Member, Collaborative Oversight Committee for Battelle Laboratories, 1992 -1995 Ad Hoc Member, NIH GM-BBCA Study Section, October, 1992 Scientific Committee for Ultrafast Reaction Dynamics and Solvent Effects May, 1993 Co-Organizer (with M. Johnson), Symposium at National ACS Meeting, San Diego, 1994 Scientific Advisory Committee for the InterAmerican Photochemical Society, 1993-1996 Scientific Program Committee for the International Ultrafast Phenomena Meeting, 1994 NIH GM-BBCA Study Section, 1994 -1999 Chair, DOE Review of Chemical Structure/Dynamics Division, EMSL, Battelle Labs, 1994 Guest Editor, Journal of Physical Chemistry, Special Issue in honor of M. A. El-Sayed 1995 Member, Organizing Committee for Western Regional ACS Meeting, 1995 Member, Beckman Institute Review Committee, California Institute of Technology 1996 Chemistry and Related Sciences Special Emphasis Panel, NIH, 1996 Executive Committee, Physical Chemistry Division of the American Chemical Society, 1997-1999 Elected to Executive Committee of the Chemical Physics Division of the American Physics Society, 1998-2000 Co-Chair, Local Organizing Committee (with C. Kubiak), International Conference on Photochemistry, 1999 Gerhard Closs Lecturer, University of Chicago, 1999 Chair, International Conference on Photochemistry, 2001 Member, International Scientific Committee for the International Conference on Photochemistry 2001-2004 Nominating Committee, ACS Division of Physical Chemistry, 1999 Guest Editor, Journal of Physical Chemistry, Special Issue in honor of Kent R. Wilson, 1999 APS Student Travel Fellowships for Presentations at National APS Meeting, 2000 Member, Council of Chemical Research, 1999-2003

Advisory Board for the Petroleum Research Foundation, 2000-2003 NIH Shared Instrument Study Section, October, 2000 Co-Chair (with T. Sarna), Symposium at XVIII International Pigment Cell Conference, The Netherlands, 2002 Editor, Photochemistry section of the Digital Photobiology Compendium, 2002-2003 Chair, Frontiers in Chemistry, A Symposium to Honor Mostafa El-Sayed, Atlanta, GA, 2003 Chairman, Physical Chemistry Program, SERMACS, 2003 International Scientific Committee, 10<sup>th</sup> Congress of the European Society for Photobiology, Vienna, Austria Co-Chair (with T. Sarna), Symposium at the ESP Conference, Vienna, 2003 Association of American Colleges and Universities, Associate, 2003 Executive Committee, American Society for Photobiology, 2003-2009 Co-Chair, Symposium at the American Society for Photobiology Meeting, Seattle, WA, 2004 External Review Team, Chemistry Department, Williams College, 2006 International Scientific Committee, European Society for Pigment Cell Research, Bari, Italy, 2007 Selection committee for the ACS Irving Langmuir Award in Chemical Physics 2006-2008 External Review: Institute Reporting Structure at NCCU for Chancellor Nelms, 2008 Duke University Liaison to SACS, 2009-2011 21st International Program Committee, International Pigment Cell Conference, Bordeaux, 2011 U21 Educational Innovation Steering Group, 2013-22<sup>nd</sup> International Program Committee, International Pigment Cell Conference, Singapore, 2014 Planning Committee, AAU Provost Meeting, Laguna Beach 2014

## Consulting

DeVries Public Relations, 1998 (Procter and Gamble) Lippe-Taylor Public Relations, 1999 (SunSmart) Unilever, 2000 – 2003 Procter and Gamble, 2004 – 2005 Pfizer, 2008

### Patents

Stimson, M.J. and Simon, J.D., Apparatus and method for the rapid spectral resolution of confocal images, U.S. Patent. 6,134,002, issued Oct. 17, 2000.

### **Publications of John D. Simon**

### Graduate Publications

1. John D. Simon, Kevin S. Peters, Solvent Effects on the Picosecond Dynamics of the Photoreduction of Benzophenone by Aromatic Amines, *Journal of the American Chemical Society*, **103**, 6403 (1981).

2. John D. Simon, Kevin S. Peters, Direct Observation of the Special Salt Effect: Picosecond Dynamics of Ion Pair Exchange, *Journal of the American Chemical Society*, **104**, 6142 (1982).

3. John D. Simon, Kevin S. Peters, Picosecond Dynamics of Ion Pairs: The Effect of Hydrogen Bonding on Ion-Pair Intermediates, *Journal of the American Chemical Society*, **104**, 6542 (1982).

4. Lewis J. Rothberg, John D. Simon, Mark Bernstein, Kevin S. Peters, Pulsed Laser Photoacoustic Calorimetry of Metastable Species, *Journal of the American Chemical Society*, **105**, 3464 (1983).

5. John D. Simon, Kevin S. Peters, Picosecond Photochemistry of  $Cr(CO)_6$ : Solvation Dynamics of the Primary Intermediate, *Chemical Physics Letters*, **98**, 53 (1983).

6. John D. Simon, Kevin S. Peters, Na<sup>+</sup> and Li<sup>+</sup> Effects on the Photoreduction of Benzophenone: A Picosecond Absorption Study, *Journal of the American Chemical Society*, **105**, 4875 (1983).

7. John D. Simon, Kevin S. Peters, Determination of the Heat of Reaction for the Formation of Diphenylcarbene from Diphenyldiazomethane Using Photoacoustic Calorimetry, *Journal of the American Chemical Society*, **105**, 5156 (1983).

8. John D. Simon, Mark Bernstein, Kevin S. Peters, Application of Photoacoustic Calorimetry to the Photofragmentation of  $Cr(CO)_6$ , *Photochemistry and Photobiology*, A. H. Zewail (ed.), Harwood Academic Press, New York (1983), 599.

9. John D. Simon, Kevin S. Peters, Picosecond Dynamics of Hydrogen Bond Formation to Radical Anions of Aromatic Ketones, *Journal of Physical Chemistry*, **87**, 4855 (1983).

10. Mark Bernstein, John D. Simon, Kevin S. Peters, Metal Carbonyl Bond Strengths: Application of Photoacoustic Calorimetry, *Chemical Physics Letters*, **100**, 241 (1983).

11. John D. Simon, Kevin S. Peters, Photodissociation of Diphenylchloromethane: Ion-Pair Formation in the Presence of Ferrocene, *Organometallics*, **2**, 1867 (1983).

12. John D. Simon, Kevin S. Peters, Picosecond Studies of Organic Photoreactions, Accounts of Chemical Research, **17**, 277 (1984).

13. Joseph J. Grabowski, John D. Simon, Kevin S. Peters, Heat of Formation of Diphenylcyclopropenone by Photoacoustic Calorimetry, *Journal of the American Chemical Society*, **106**, 4615 (1984).

### Postdoctoral Publications

14. David A. Gobeli, John D. Simon, Mostafa A. El-Sayed, The Dynamics of Multiphoton Ionization Dissociation of 2,4-Hexadiyne by Two Color Picosecond Pump-Pump Mass Spectrometric Technique: The Formation of  $C_6H_6^+$ ,  $C_4H_4^+$  and  $C_4H_3^+$  Ions, *Journal of Physical Chemistry*, **88**, 3949 (1984). 15. Mostafa A. El-Sayed, David A. Gobeli, John D. Simon, Pump-Pump Picosecond Laser Techniques and Energy Distribution in Mass Spectrometry, *Ultrafast Phenomena*, K. Eisenthal, D. Austin (eds.) Springer Verlag, New York (1984), 341.

16. David A. Gobeli, John D. Simon, Mostafa A. El-Sayed, Two Color Picosecond Laser Mass Spectrometry, *International Journal of Mass Spectrometry and Ion Physics*, **63**, 149 (1985).

17. Jeng J. Yang, John D. Simon, Mostafa A. El-Sayed, Formation of  $C_6H_4Cl^+$  Ions by Laser Multiphoton Ionization Fragmentation of 1,3-Dichlorobenzene Using the Two-Color Picosecond Mass Spectrometric Technique, *Journal of Physical Chemistry*, **88**, 6091 (1984).

18. John D. Simon, William R. Moomaw, Tony L. Ceckler, The Structure, NMR, and Electronic Spectra of Europium(III) Crown Ether Complexes in Solution, *Journal of Physical Chemistry*, **89**, 5659 (1985).

19. John D. Simon, Diane M. Szaflarski, Mostafa A. El-Sayed, A Computerized Two-Color Picosecond Laser Mass Spectrometer, *Society for Optical and Quantum Electronics*, Proceedings of the International Conference on Lasers 1984, p. 174.

20. David A. Gobeli, John D. Simon, Diane M. Szaflarski, Mostafa A. El-Sayed, Studies of Rapid Intramolecular and Intraionic Dynamic Processes with Two Color Picosecond Lasers and Mass Spectrometry, in *Chemical Reaction Dynamics*, P. M. Rentzepis, C. Capellos, Eds. D Reidel Publ. Co., Dordretch Holland 1986, p. 41.

21. Diane M. Szaflarski, John D. Simon, Mostafa A. El-Sayed, Study of the Multiphoton Ionization Dissociation of 1,4-Dichlorobenzene by the Two Color Picosecond Laser Mass Spectrometric Technique, *Journal of Physical Chemistry*, **90**, 5050 (1986).

22. John D. Simon, Diane M. Szaflarski, Mostafa A. El-Sayed, The Formation of  $C_6H_4Cl^+$  from 1,4 Dichlorobenzene Studied by Picosecond Multiphoton Mass Spectrometry, *Proceedings of the SPIE Meeting on Laser Applications in Science and Engineering*, **620**, 57 (1986).

Publications from UCSD

# 1986

23. Shyh-Gang Su, John D. Simon, Solvent Dynamics and Twisted Intramolecular Charge Transfer in 4,4'-Diaminophenyl Sulphone, *Journal of Physical Chemistry*, **90**, 6475 (1986).

24. Shyh-Gang Su, John D. Simon, The Importance of Hydrogen Bonded Clusters in the Stabilization of the Intramolecular Charge Transfer State of 4,4'-Diaminophenyl Sulphone in Alcohols and Alcohol: Acetonitrile Mixtures, *Chemical Physics Letters*, **132**, 345 (1986).

25. John D. Simon, Xiaoliang Xie, Photodissociation of  $Cr(CO)_6$  in Solution: Direct Observation of the Formation of  $Cr(CO)_5$  (MeOH), *Journal of Physical Chemistry*, **90**, 6751 (1986).

26. Albert J. Cross, John D. Simon Rotational Dynamics of a Solvated Dipole: A Molecular Dynamics Study of Dielectric Friction, *Journal of Chemical Physics*, 86, 7079 (1987).
27. John D. Simon, Shyh-Gang Su, Solvation Dynamics and the Time-Dependent Stoke Shift, *Proceedings of the SPIE: Laser Applications in Science and Engineering*, 742, 96 (1987).
28. Shyh-Gang Su, John D. Simon, Solvation Dynamics in Ethanol, *Journal of Physical Chemistry*, 91, 2693 (1987).

29. John D. Simon, Shyh-Gang Su, Intramolecular Electron Transfer and Solvation, *Journal of Chemical Physics*, **87**, 7016 (1987).

30. John D. Simon, Xiaoliang Xie, Time Resolved Studies of Solvation: The Photodissociation of Cr(CO)<sub>6</sub> in Pentanol, *Journal of Physical Chemistry*, **91**, 5538 (1987).

### 1988

31. John D. Simon, Shyh-Gang Su, Matt Banet, Solvation and Twisted Intramolecular Charge Transfer in AminophenylSulphones, *Proceedings of the International Conference on Lasers* '87 (STS Press, McLean, VA, 1988), 867.

32. John D. Simon, Time Resolved Studies of Solvation in Polar Media, *Accounts of Chemical Research*, **21**, 128 (1988).

33. Shyh-Gang Su, John D. Simon, The Importance of Vibrational Motion and Solvent Diffusional Motion in Excited State Intramolecular Electron Transfer Reactions, *Journal of Chemical Physics*, **89**, 908 (1988).

34. Xiaoliang Xie, John D. Simon, Photodissociation of  $Cr(CO)_6$  in Solution: Solvation Dynamics of  $Cr(CO)_5$ , *Advances in Laser Science III, Optical Science and Engineering Series*, **9**, A. C. Tam, J. L. Gole, W. C. Stwalley, Eds. (AIP, New York, 1988), 721.

35. Shyh-Gang Su, John D. Simon, Time Resolved Studies of Solvation, *Advances in Laser Science III, Optical Science and Engineering Series*, **9**, A. C. Tam, J. L. Gole, W. C. Stwalley, Eds. (AIP, New York, 1988), p. 706.

36. John D. Simon, Shyh-Gang Su, Dynamic Solvent Effects on Intramolecular Electron-Transfer Reactions: Fluctuation Time Scales and Population Decays, *Journal of Physical Chemistry*, **92**, 2395 (1988).

37. Omar A. Karim, Anthony D. J. Haymet, John D. Simon, Matt J. Banet, Molecular Aspects of Nonequilibrium Solvation: A Simulation of Dipole Relaxation, *Journal of Physical Chemistry*, **92**, 3391 (1988).

38. Scott C. Bovino, Richard S. Moog, John D. Simon, Solvent Relaxation and Excited State Proton Transfer: 7-Azaindole in Ethanol, *Journal of Physical Chemistry*, **92**, 6545 (1988).

39. Shyh-Gang Su, John D. Simon, Picosecond Fluorescence Dynamics of -Dimethylaminobenzonitrile in Alcohol Solution, *Proceedings of the OE/LASE SPIE Meeting on Laser Applications in Science and Technology SPIE*, **910**, 155, Fluorescence Detection II, (SPIE, Washington, 1988).

40. Matt J. Banet, Omar A. Karim, John D. Simon, Anthony D. J. Haymet, Dipolar Relaxation Dynamics in Water: A Study of Nonequilibrium Solvation, *Nuclear Physics B*, **5A**, 261 (1988).

## 1989

41. John D. Simon, Xie Xiaoliang, Photodissociation of  $Cr(CO)_6$  in n-propanol and i-propanol: The Effect of Solvent Structure on the Mechanism of Formation of  $Cr(CO)_5(OHR)$  from Photogenerated  $Cr(CO)_5(ROH)$ , *Journal of Physical Chemistry*, **93**, 291 (1989).

42. Shyh-Gang Su, John D. Simon, The Importance of Molecular Size on the Dynamics of Solvent Relaxation, *Journal of Physical Chemistry*, **93**, 753 (1989).

43. Xiaoliang Xie, John D. Simon, High Energy and Tunable Picosecond Laser Pulses at 1 kHz: Synchronously Pumping a Dye Laser with a Mode-Locked, Q-Switched and Cavity Dumped Nd: YAG Laser System, *Optics Communications*, **69**, 303 (1989).

44. Shyh-Gang Su, John D. Simon Nonequilibrium and Nonadiabaticity Effects on Excited State Electron Transfer Reactions in Solution, *Chemical Physics Letters*, **158**, 423 (1989).

45. John D. Simon, John E. Crowell, John H. Weare, David R. Miller, Material Applications of the FEL at UCSB, *Journal of the Optical Society B*, **6**, 1035 (1989).

46. Xiaoliang Xie, John D. Simon Picosecond Time Resolved Circular Dichroism Spectroscopy: Experimental Details and Applications, *Review of Scientific Instruments*, **60**, 2614 (1989).

47. Xiaoliang Xie, John D. Simon Photodissociation of  $Cr(CO)_6$  and  $Cr(CNPh)_6$  in THF, *Journal of Physical Chemistry*, **93**, 4401 (1989).

48. John D. Simon Ultrashort Light Pulses, invited review article for *Review of Scientific Instruments*, **60**, 3597 (1989).

# 1990

49. John D. Simon, Shyh-Gang Su, The Effect of Vibrational Motion on the Dynamics of Intramolecular Charge Transfer Reactions, in Nonlinear Optics and Ultrafast Phenomena, R. R. Alfano, L. Rothberg, eds., Nova Publishing, New York, pp. 13-19 (1990).

50. Xiaoliang Xie, John D. Simon Picosecond Time-Resolved Studies of the Solvation of  $Cr(CO)_5$  in Alcohols: A Unimolecular Kinetic Model for the Formation of  $Cr(CO)_5(OHR)$  from Photogenerated  $Cr(CO)_5(ROH)$ , *Journal of the American Chemical Society*, **112**, 1130 (1990).

51. John D. Simon, Shyh-Gang Su, The Effect of Viscosity and Rotor Size on the Dynamics of Twisted Intramolecular Charge Transfer, *Journal of Physical Chemistry*, 94, 3656 (1990).
52. Peggy A. Thompson, John D. Simon, Spectroscopy and Rotational Dynamics of Oxazine 725 in Alcohols: A Test of Dielectric Friction Theories, *Journal of Chemical Physics*, 92, 2891 (1990).

53. Marie C. Messmer; John D. Simon, A Physical Interpretation of the Time Dependent Absorption Dynamics of Photogenerated Electrons in Water, *Journal of Physical Chemistry*, **94**, 1220 (1990).

54. Xiaoliang Xie, John D. Simon, Picosecond Circular Dichroism Spectroscopy: Experiment, Theory, and Applications to Protein Dynamics, *SPIE meeting on Time Resolved Laser Spectroscopy in Biochemistry* II **1204**, 66 (1990).

55. Peggy A. Thompson, John D. Simon, William R. Good, Monica M. Desai, Celeste D. Silvers, Richard S. Moog, Dielectric Friction and Chemical Processes in Solution, *Proceedings of the SPIE meeting on Picosecond and Femtosecond Spectroscopy from Laboratory to Real World*, **1201**, 1 (1990).

56. Xiaoliang Xie, John D. Simon, Picosecond Circular Dichroism Spectroscopy: A Jones Matrix Analysis, *Journal of the Optical Society B*, **7**, 1675 (1990).

57. Erin O'Driscoll, Kevin S. Peters, John D. Simon, Solvent Effects on the Energetics of Intermolecular Charge Transfer Reactions, *Journal of the American Chemical Society*, **112**, 6580 (1990).

58. Erin O'Driscoll, John D. Simon, Temperature Dependent Study of the Rearrangement Dynamics of Photogenerated Solvated Complexes of Chromium Pentacarbonyl in Alcohol, Alkyl Bromide and Nitrile Solvents, submitted to the *Journal of the American Chemical Society*, **112**, 6580 (1990).

59. Xiaoliang Xie, John D. Simon, Picosecond Time Resolved Circular Dichroism Study of Protein Relaxation in Myoglobin Following Photodissociation of CO, *Journal of the American Chemical Society*, **112**, 7802 (1990).

60. Xiaoliang Xie, John D. Simon, Picosecond Polarization Studies of Protein Motion, *Ultrafast Phenomena VII* (Springer-Verlag, 1990), p. 544.

61. John D. Simon Solvation Dynamics: New Insights Into Chemical Reaction and Relaxation Processes, invited article for *Pure and Applied Chemistry*, **62**, 2243 (1990).

62. Xiaoliang Xie, John D. Simon, Picosecond Magnetic Circular Dichroism Spectroscopy, *Journal of Physical Chemistry*, **94**, 8014 (1990).

63. Xiaoliang Xie, John D. Simon, Protein Conformational Relaxation Following Photodissociation of CO from Carbonmonoxymyoglobin: Picosecond Circular Dichroism and Absorption Studies, *Biochemistry*, **30**, 3682 (1991).

64. John D. Simon, Shyh-Gang Su, Picosecond Stokes Shift Studies of Solvent Friction: Experimental Measurements of Time Dependent Band Shape and Integrated Intensity, invited article for the special issue of *Chemical Physics* **152**, 143 (1991).

65. Xiaoliang Xie, John D. Simon, A Picosecond Circular Dichroism Study of Photosynthetic Reaction Centers from Rhodabacter Sphaeroides, *Biochemica et Biophysica Acta* **1057**, 131 (1991).

66. Robert C. Dunn, John D. Simon, Picosecond Study of the Near Infrared Absorption Band of Hemoglobin Following Photolysis of Carbonmonoxy-hemoglobin, *Biophysical Journal*, **60**, 884 (1991).

67. Robert C. Dunn, John D. Simon, Picosecond Dynamics of Hemoglobin and Myoglobin Following Photodissociation of CO, *Proceedings of the International Conference on Lasers* 1991, 153.

68. Robert C. Dunn, John D. Simon, Xiaoliang Xie, Picosecond Absorption and Circular Dichroism Studies of Proteins, *Proceedings of the SPIE Meeting on Biomolecular Spectroscopy*, **1432**, 211 (1991).

69. Robert C. Dunn, Eric Richard, Veronica Vaida, Veronica, John D. Simon, Competing Photochemical Pathways of OCIO in Solution, *Journal of Physical Chemistry*, **95**, 6060 (1991).

70. Nancy A. Burozski, Monica M. Desai, William R. Good, Celeste D. Silvers, Richard S. Moog, Peggy A. Thompson, John D. Simon, Solution Photophysics of 1-Aminofluorenone and 3-Aminofluorenone: The Role of Inter- and Intramolecular Hydrogen Bonding in Radiationless Deactivation, *Journal of Physical Chemistry*, **95**, 8466 (1991).

## 1992

71. Robert Doolen, John D. Simon, On the Dimensionality of the Reaction Coordinate in Intramolecular Charge Transfer Reactions in Protic Solvents, *Journal of the American Chemical Society*, **114**, 4861 (1992).

72. Bret N. Flanders, Robert C. Dunn, John D. Simon, Veronica Vaida, The Spectroscopy of OCIO in Polar Liquids, invited paper for *Spectrochemica Acta* special issue on Atmospheric Spectroscopy, **48A**, 1293 (1992).

73. Robert C. Dunn, John D. Simon, Excited State Photoreactions of Chlorine Dioxide in Water *Journal of the American Chemical Society*, **114**, 4856 (1992).

74. James W. Lewis, Robert A. Goldbeck, David S. Kliger, Xiaoliang Xie, Robert C. Dunn and John D. Simon, Time Resolved Circular Dichroism Spectroscopy, invited Feature Article for *Journal of Physical Chemistry*, **96**, 5243 (1992).

75. Robert C. Dunn, Bret N. Flanders, John D. Simon, Solution Photochemistry of OCIO: Excited State Dissociation and Isomerization, *SPIE Proceedings on Optical Methods for Timeand State-Resolved Chemistry*, **1638**, 29 (1992).

76. James K. McCusker, Kevin N. Walda, Robert C. Dunn, John D. Simon, Douglas Magde, David N. Hendrickson, Sub-Picosecond  $\Delta S=2$  Intersystem Crossing in Low-Spin Ferrous Complexes, *Journal of the American Chemical Society*, **114**, 6919 (1992).

77. Peggy A. Thompson, John D. Simon, Electrolyte Effects on Molecular Radiationless Decay: The Photophysics of 3-Aminofluorenone in Acetonitrile-Salt Solutions, *Journal of Chemical Physics*, **97**, 4792 (1992).

## 1993

78. Robert C. Dunn, John D. Simon, Excited State Photoreactions of Chlorine Dioxide in Solution, in *Ultrafast Phenomena VIII*, Springer-Verlag, 661 (1993).

79. James K. McCusker, Kevin N. Walda, Robert C. Dunn, John D. Simon, Douglas Magde, David N. Hendrickson, Subpicosecond <sup>1</sup>MLCT "<sup>5</sup>T<sub>2</sub> Intersystem Crossing of Low-Spin Polypyridyl Ferrous Complexes, *Journal of the American Chemical Society*, **115**, 298 (1993).

80. Robert C. Dunn, Xiaoliang Xie, John D. Simon, Real Time Spectroscopic Techniques for Probing Conformational Dynamics of Heme Proteins, *Methods in Enzymology: Methalobiochemistry, Part C*, **226**, 117 (1993).

81. Peggy A. Thompson, Abraham E. Broudy, John D. Simon, Electrolyte Effects on the Photophysical Properties of Intramolecularly Hydrogen Bonded Molecules, *Journal of the American Chemical Society*, **115**, 1925 (1993).

82. Peggy A. Thompson, John D. Simon, Electrolyte Effects on the Energetics and Dynamics of Intermolecular Electron Transfer Reactions: Probing the Marcus Inverted Region, *Journal of the American Chemical Society*, **115**, 5657 (1993).

83. Robert C. Dunn, John D. Simon, Jamie L. Anderson, Christopher S. Foote, Condensed Phase Photochemistry of Chlorine Dioxide: Mechanisms for the Generation of Atomic Chlorine, *Journal of the American Chemical Society*, **115**, 5307 (1993).

84. Peijun Cong, Hans P. Deuel, John D. Simon, Using Optical Coherence to Measure the Ultrafast Electronic Dephasing of Large Molecules in Solution, *Chemical Physics Letters.*, **212**, 367 (1993).

85. Peter J. Rossky, John D. Simon, Dynamics of Chemical Processes in Polar Solvents, invited review article, *Nature*, **370**, 263 (1994).

86. Peijun Cong, John D. Simon, Introduction to Ultrafast Laser Spectroscopic Techniques Used in the Investigation of Condensed Phase Chemical Reactivity, in *Ultrafast Spectroscopy of Chemical Systems*, Simon, J. D., Ed., 1 (1994).

87. John D. Simon, Peijin Cong, Hans P. Deuel, Robert Doolen, Robert C. Dunn, Peggy A. Thompson, Dynamics of Electronic Excited States in Solution, *Ultrafast Reaction Dynamics and Solvent Effects*, AIP **298**, Gaudell, Y., Rossky, P. J., Editors, 141 (1994).

88. Veronica Vaida, K. Goudjil, Bret N. Flanders, John D. Simon, Comparison Between the Thermal and Photochemical Reactivity of Chlorine Dioxide in the Gas Phase and Water Solution" *Journal of Molecular Liquids*, special issue, **61**, 133 (1994).

89. Robert Doolen, John D. Simon, Isotope Effects on the Electron-Transfer Dynamics of the Benzene and Chlorine Oxide Donor-Acceptor Complex, *Journal of the American Chemical Society*, **116**, 1155 (1994).

90. Peijun Cong, Hans P. Deuel, YiJing Yan, John D. Simon, Ultrafast Electronic Dephasing Dynamics of Large Molecules in Room Temperature Liquids Studied by Variable Pulse-Width Tunable Femtosecond Transient Absorption Spectroscopy, *Journal of Luminescene*, **60&61**, 699 (1994).

91. Peijun Cong, YiJing Yan, Hans P. Deuel, John D. Simon, Non-Markovian Optical Dephasing Dynamics in Room Temperature Liquids Investigated by Femtosecond Transient Absorption Spectroscopy: Theory and Experiment, *Journal of Chemical Physics*, **100**, 7855 (1994).

92. John D. Simon, Peijun Cong, Hans P. Deuel, Recent Advances in Femtosecond OHD-RIKES of Solutions, invited paper in *Proceedings of the XIVth International Conference on Raman Spectroscopy*, Yu, N.-T., Li, X.-Y., Editors, Wiley, 1994, p, 440.

93. Peijun Cong, John D. Simon, Hans P. Deuel, Four-wave Mixing Studies of Electronic Relaxation, contributed paper in *Proceedings of the XIVth International Conference on Raman Spectroscopy*, Yu, N.-T., Li, X.-Y., Editors, Wiley, 1994, p. 408.

94. Yuri Dakhnovskii, Robert Doolen, John D. Simon, Electron Transfer in the Marcus Inverted Region: Experiment and Adiabatic Tunneling Mechanism, *Journal of Chemical Physics*, **101**, 6640 (1994).

95. Hans P. Deuel, Peijun Cong, John D. Simon, Probing Intermolecular Dynamics in Liquids by Femtosecond Optical-Kerr-Effect Spectroscopy: Effects of Molecular Symmetry, *Journal of Physical Chemistry*, **98**, 12600 (1994).

96. Peijun Cong, YiJing Yan, Hans P. Deuel, John D. Simon, Probing the Molecular Dynamics of Liquids and Solutions, invited chapter *for Ultrafast Processes in Chemistry and Photobiology* Chemistry in the 21st Century, El-Sayed, M. A., Molin, Y. N. and Tanaka, I, Eds., 1995, p. 53.

97. Peijun Cong, YiJing Yan, Hans P. Deuel, John D. Simon, Optical Dephasing Dynamics in Room Temperature Liquids, in *Ultrafast Phenomena IX*, Springer-Verlag 1995, p.101.

98. Hans P. Deuel, Peijun Cong, John D. Simon, Importance of Femtosecond Solvent Motion on Electron-Transfer Reactions: A Study of Electrolyte Solutions, in *Ultrafast Phenomena IX*, Springer-Verlag 1995, p 510.

99. Robert C. Dunn, Bret N. Flanders, John D. Simon, Solvent Effects on the Spectroscopy and Ultrafast Photochemistry of Chlorine Dioxide, *Journal of Physical Chemistry*, special issue in honor of M. A. El-Sayed, **99**, 7360 (1995).

100. Robert Doolen, John D. Simon, Kim K. Baldridge, Solvent, Isotope, and Substituent Effects on the Bimolecular Electron Transfer Reaction Between Chlorine Oxide and Benzenes, *Journal of Physical Chemistry*, **99**, 13938 (1995).

101. Veronica Vaida, John D. Simon, Isolated Molecule, Condensed Phase, and Atmospheric Photochemistry of OCIO, invited feature article for *Science*, **268**, 1443 (1995).

102. David Adams, Bulang Li, John D. Simon, David N. Hendrickson, Photoinduced Valence Tautomerism in Cobalt Bis-o-Quinone Complexes: Dynamics of the High-Spin [CoII(3,5-DTBSQ)2] to Low-Spin [CoIII(3,5-DTBSQ(3,5-DTBCat)] Interconversion, *Angewandte Chemie*, **34**, 1481 (1995).

103. Peijun Cong, Hans P. Deuel, John D. Simon, Structure and Dynamics of Molecular Liquids Investigated by Optical-Heterodyne Detected Raman-Induced Kerr Effect Spectroscopy (OHD-RIKES), *Chemical Physics Letters*, **240**, 72 (1995).

104. Hans P. Deuel, Peijun Cong, John D. Simon, Probing the Effects of Electrolytes on Intermolecular Interactions in Solution by Optical-Heterodyne Detected Raman-Induced Kerr Effect Spectroscopy (OHD-RIKES), *Journal of Raman Spectroscopy*, **26**, 523 (1995).

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218. Luigi Zecca, Chiara Bellei, Patrizia Costi, Alberto Albertini, Enrico Monzani, Luigi Casella, Mario Gallorini, Luigi Bergamaschi, Alberto Moscatelli, Nicholas J. Turro, Melvin Eisner, Pier Raimondo Crippa, Shosuke Ito, Kazumasa Wakamatsu, William D. Bush, Weslyn C. Ward, John D. Simon and Fabio A. Zucca, New melanic pigments in the human brain that accumulate in aging and block environmental toxic metals, *Proceedings of the National Academy of Sciences, USA* **115**, 17567-17572 (2008).

### 2009

219. Dana N. Peles, John D. Simon, Challenges in Applying Photoemission Electron Scanning Microscopy to Biological Systems, *Photochemistry and Photobiology* **85**, 8-20 (2009).

220. William D. Bush, Jacob Garguilo, Fabio A. Zucca, Chiara Bellei, Robert J. Nemanich, Glenn S. Edwards, Luigi Zecca, John D. Simon, Neuromelanins Isolated from Different Regions of the Human Brain Exhibit a Common Surface Photoionization Threshold, *Photochemistry and Photobiology* **85**, 387-390 (2009).

221. Dana N. Peles, Lian Hong, John D. Simon, Dan-ning Hu, Structural characterization of colored human iridal melanosomes by photoelectron emission microscopy, in Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues VII, Daniel L. Farkas; Dan V. Nicolau; Robert C. Leif, Editors, *Proceedings of the SPIE Vol. 7182*, DOI: 10.1117/12.808257 (2009).

222. Weslyn C. Ward, Fabio A. Zucca, Chiara Bellei, Luigi Zecca, and John D. Simon, Neuromelanins in various regions of human brain are associated with native and oxidized isoprenoid lipids, *Archives of Biochemistry and Biophysics*, **484**, 94–99 (2009). 223. Lian Hong, John D. Simon, The Binding of Cu(II) to human  $\alpha$ -Synucleins: Comparison of wild type protein and the point mutations associated with familial Parkinson Disease, *Journal of Physical Chemistry B*, **113**, 9551-9561 (2009).

224. John D. Simon, Seeing red: pheomelanin synthesis uncovered, *Pigment Cell and Melanoma Research*, News and Views, **22**, 382-383 (2009).

225. Dana N. Peles, Lian Hong, Dan-Ning Hu, Shosuke Ito, Robert J. Nemanich. John D. Simon, Human iridal stroma melanosomes of varying pheomelanin content possess a common eumelanic outer surface, *Journal of Physical Chemistry B.*, **113**, 11346-11351 (2009).

226. John D. Simon, Dana N. Peles, Kazumasa Wakamatsu, Shosuke Ito, Current Challenges in Understanding Melanogenesis: Bridging Chemistry, Biological Control, Morphology, and Function, Invited review: *Pigment Cell and Melanoma Research*, **22**, 563-579 (2009).

## 2010

227. Dana. N. Peles, John D. Simon, Direct Measurement of the Ultraviolet Absorption Coefficient of Single Retinal Melanosomes, *Photochemistry and Photobiology*, **86**, 279-281 (2010).

228. Dana N. Peles, John D. Simon, The Ultraviolet Absorption of Human Iridal Melanosomes Decreases with Increasing Pheomelanin Content, *Journal of Physical Chemistry B.* **114**, 9677–9683 (2010).

229. Valerie R. Kempf, Kazumasa Wakamatsu, Shosuke Ito, John D. Simon, Imaging, Chemical and Spectroscopic Studies of the Methylation-Induced Decomposition of Melanosomes, *Photochemistry and Photobiology*, **86**, 765-771 (2010)

230. L.S. Murdaugh, L.B. Avalle, S. Mandal, J. Dillon, J.D. Simon, and E.R. Gaillard, Compositional Studies of Human RPE Lipofuscin, *Journal of Mass Spectrometry*, **45**, 1139–1147 (2010).

231. Lian Hong, Tessa M. Carducci, William D. Bush, Christopher G. Dudzik, Glenn L. Millhauser, and John D. Simon, Quantification of the Binding Properties of Cu<sup>2+</sup> to the Amyloid-Beta Peptide:. Coordination Spheres for Human and Rat Peptides and Implications on Cu<sup>2+</sup>-Induced Aggregation, *Journal of Physical Chemistry B* **114**, 11261-11271 (2010).

232. Dana N. Peles, Erica Lin, Kazumasa Wakamatsu, Shosuke Ito, John D. Simon, Ultraviolet Absorption Coefficients of Melanosomes Containing Eumelanin As Related to the Relative Content of DHI and DHICA, *Journal of Physical Chemistry Letters*, **1**, 2391-2395 (2010).

233. Dana N. Peles, John D. Simon, The Red and the Black, *Accounts of Chemistry Research*, **43**, 142-1460 (2010).

234. L.S. Murdaugh, S. Mandal, A. E. Dill, J. Dillon, J.D. Simon, and E.R. Gaillard, Compositional Studies of Human RPE Lipofuscin: Mechanisms of Molecular Modifications, *Journal of Mass Spectrometry*, **46**, 90-95 (2011).

235. Lian Hong, John D. Simon, Insights into Copper Association with Neuropeptides using Isothermal Calorimetry, invited mini-review, themed issue on Metals in Neurodegenerative Diseases *Metallomics*, **3**, 262 – 266 (2011).

236. John D. Simon, Separating melanins into their primary colors: quantifying contributions from eumelanin and pheomelanin. *Pigment Cell Research*, **24**, 593-594 (2011)

237. Dana N. Peles and John D. Simon, UV-Absorption Spectra of Melanosomes Containing Varying 5,6-Dihydroxyindole and 5,6-Dihydroxyindole-2-Carboxylic Acid Content, *Journal of Physical Chemistry B.* **115**, 12624–12631 (2011).

# 2012

238. Erica Lin, Dana N. Peles, The Effect of Dehydration on the Absorption Properties of Intact Melanosomes, *Photochemical and Photobiological Sciences*, **11**, 687–691 (2012)

239. Dana N. Peles, John D. Simon, The UV-Absorption Spectrum of Human Iridal Melanosomes: A New Perspective on the Relative Absorption of Eumelanin and Pheomelnain and its Consequences, *Photochemistry and Photobiology*, **88**, 1378–1384 (2012).

240. Keely Glass, Shosuke Ito, Philip R. Wilby, Takayuki Sota, Atsushi Nakamura, Clifford R. Bowers, Jakob Vinther, Suryendu Dutta, Roger Summons, Derek E. G. Briggs, Kazumasa Wakamatsu, John D. Simon, Direct Chemical Evidence for Undegraded Eumelanin Pigment from the Jurassic Period, *Proceedings of the National Academy of Science USA*, **109** 10218-10223 (2012).

# 2013

241. Shosuke Ito, Kazumasa Wakamatsu, Keely Glass, and John D. Simon, Thermally-induced cross-linking of dihydroxyindole moiety in eumelanin, *Analytical Biochemistry*,**434** 221-225 (2013).

242. Jie Hou, Diane M. Szaflarski, and John D. Simon, Quantifying the Association Constant and Stiochiometry of the Complex between Colloidal Polyacrylate-Coated Gold Nanoparticles and Chymotrypsin, *Journal of Physical Chemistry*, 117, 4587-4593 (2013).

243. John D. Simon, Lifelong Learning and Global Engagement Keys to Success, Provost Perspectives, Association of International Education Administers. http://aieaworld.org/publications/provosts-perspectives 244. Gilbert Walker, Patanjali Kambhampati, Carlos Silva, John D. Simon, Biography of Paul F. Barbara, *Journal of Physical Chemistry*, 117, 4157-4159 (2013).

245. Marco d'Ischia, Kazumasa Wakamatsu, Alessandra Napolitano, Stefania Briganti, Jose-Carlos Garcia-Borron, Daniela Kovacs, Paul Meredith, Alessandro Pezzella, Mauro Picardo, Tadeusz Sarna, John Simon, Shosuke Ito, Shosuke, Melanins and melanogenesis: methods, standards, protocols, *Pigment Cell and Melanoma Research*, 26, 616–633 (2013).

246. Mary Jane Simpson, Kelly E. Glass, Jesse W. Wilson, Philip R. Wilby, John D. Simon, Warren S. Warren, Pump-Prove imaging of Jurassic period Eumelanin, *Journal of Physical Chemistry Letters*, **4**, 1924–1927 (2013)

247. Keely Glass, Shosuke Ito, Philip R. Wilby, Takayuki Sota, Atsushi Nakamura, C. Russell Bowers, Suryendu Dutta, Roger Summons, Derek E. G. Briggs, Kazumasa Wakamatsu, John D. Simon, Comparative Study of Eumelanin Preserved in Jurrasic Ink Sacs, *Organic Geochemistry*, **64**, 29-37 (2013)

## 2014

248. Mary Jane Simpson, Jesse W. Wilson, Francisco E. Robles' Christopher P. Dall, Keely E. Glass, John D. Simon, Warren S. Warren, Near-Infrared Excited State Dynamics of Melanins: the Effects of Iron Content, Photo-Damage, Chemical Oxidation, and Aggregate, *Journal of Physical Chemistry A*; **118**, 993–1003 (2014).

249. John D. Simon, The CAO as Planner: Strategic Planning and the Office of Institutional Research, in *The Provost's Handbook* Eds. James Martin, James E. Samels and Associates, JHU Press.

250. Kelly M. Glass, Shosuke Ito, Philip R. Wilby and John D. Simon, Color of ancient cephalopod ink, in Mcgraw-Hill Education Encyclopedia/Yearbook of Science & Technology 2015, Dec. 2014.

251. Keely Glass, Rolando Rengifo, Fiona Porrka, and John D. Simon, Probing the Surface Cation Binding Sites of Melanosomes using Molecular Rulers, *Journal of Physical Chemistry B*. **118**, 14110 – 14114 (2014).

# 2015

252. Marco d'Ischia, Kazamasa Wakamatsu, Fabio Cicoira, Eduardo Do Mauro, Jose Carlos Garcia-Barron, Stephane Commo, Ismael Galvan, Ghanem Ghanem, Koike Kenzo, Paul Meredith, Alessandro Pezzella, Clara Santato, Tadeusz Sarna, John D. Simon, Luigi Zecca, Fabio Zucca, Alessandra Napolitano, Shosuke Ito, Melanins and Melanogenesis: From Pigment Cells to Human Health and Technological Applications, *Pigment Cell and Melanoma Research*, accepted for publication.

### **IN PREPARATION**

253. Keely Glass. Philip R. Wilby, Shosuke Ito, Jae Lee and John D. Simon, Isolation and Identification of Amino Acids in Jurassic Fossil Melanin.

254. Dana M. Peles, John D. Simon, Polarization-dependent Photoelecton Emission Microscopy Studies of Intact Melanosomes.

### Books

1. John D. Simon, Editor, "Ultrafast Spectroscopy of Chemical Systems" Kluwer, 1994.

2. Harry B. Gray, John D. Simon, William C. Trogler, "Braving the Elements" University Science Books, 1995.

3. Donald A. McQuarrie, John D. Simon, "Physical Chemistry: A Molecular Approach" University Science Books, 1997.

4. Donald A. McQuarrie, John D. Simon, "Molecular Thermodynamics" University Science Books, 1999.

## **Invited Seminars and Group Participation at Professional Meetings**

## 1985

University of California, San Diego, CA Christ Church University, New Zealand

## 1986

SPIE O-E/LASE '86 Symposium, Los Angeles, CA, Session Chair, Contributed Talk. Ultrafast Phenomena V Conference, Snow Mass, CO Presidential Young Investigators Symposium, San Diego, CA

## 1987

SPIE O-E/LASE '87 Symposium, Los Angeles, CA, Session Chair, Contributed Talk.
California Institute of Technology, Pasadena, CA
University of California, Riverside, CA
Co-organizer Nonlinear Spectroscopy Weekend Workshop, Lake Arrowhead, CA.
ACS Meeting, Denver, CO, Poster Presentation
University of California, Irvine, CA
California State Sacramento, Sacramento, CA
University of Minnesota, Minneapolis, MN
University of California, San Diego, San Diego, CA
Gordon Conference on the Chemistry and Physics of Liquids, Plymouth, NH, Oral and Poster
Presentation
Pacific Conference on Spectroscopy, Irvine, CA, Oral Presentation
International Meeting on Lasers, Atlantic City, NJ, Oral and Poster Presentations, Session Chairman
Lasers '87, Lake Tahoe, CA, Oral Presentation

## 1988

SPIE OE/LASE '88, Los Angeles, CA, Invited Speaker 35th Conference on Modern Spectroscopy, Asilomar, CA, Poster Presentations University of California at Los Angeles, Los Angeles, CA University of Utah, Salt Lake City, UT The Role of Nonlinear Dynamics in Reaction Kinetics, Lake Arrowhead, CA 3<sup>rd</sup> University of California Conference on Statistical Mechanics, Davis, CA, Invited Speaker Stanford University, Stanford, CA IBM, San Jose, CA UCSD, Institute for Nonlinear Studies, San Diego, CA University of Utah, Salt Lake City, UT Third Annual MFEL Contractor's Meeting, Salt Lake City, UT, Invited Speaker A.C.S. Middle Atlantic Regional Meeting, Philadelphia, PA, Poster Presentation University of California, Davis, CA Gordon Conference on Dielectric Phenomena, Plymouth, NH, Invited Speaker Gordon Conference on Water, Holderness, NH, Invited Discussion Leader University of Houston, Houston, TX University of Texas at Austin, Austin, TX Ultrafast Phenomena Symposium of the Electrochemical Society, Chicago, IL, Invited Speaker Northwestern University, Evanston, IL

Medical and Material Applications FEL Workshop, Los Alamos National Lab, Los Alamos, NM

## 1989

West Coast Spectroscopy Association Meeting, Asilomar, CA, Invited Speaker University of Colorado, Boulder, CO Reed College, Portland, OR University of Oregon, Eugene, OR Oregon State University, Corvallis, OR University of Washington, Seattle, WA University of Nevada at Reno, Reno, NV University of California at Riverside, Riverside, CA University of California at Santa Cruz, Santa Cruz, CA NSF-SERC Workshop of Molecular Spectroscopy and Dynamics, Princeton, NJ, Invited Speaker Gordon Conference on Organic Photochemistry, Andover, NH, Invited Speaker ILS-V, Stanford, CA, Poster Presentations American Chemical Society National Meeting, Miami, FL, Invited Speaker (2 symposia) Pacific Conference on Spectroscopy, Pasadena, CA, Contributed Talk University of Colorado, Boulder, CO International Meeting of the Electrochemical Society, Hollywood, Fl., Invited Speaker Workshop on Molecular Reaction Dynamics in Condensed Matter, Irvine, CA, Invited Speaker Pacific Northwest Laboratories, Richland, WA University of New Mexico Albuquerque, NM Colorado State University, Fort Collins, CO University of Colorado, Boulder, CO International Chemical Congress of Pacific Basin Societies, Honolulu, HA, Invited Speaker

# 1990

SPIE Meeting, Los Angeles, CA, Invited Speaker (2 symposia) West Coast Spectroscopy Association Meeting, Asolimar, CA, Contributed Talk and Poster Presentations University of Utah, Salt Lake City, UT 4<sup>th</sup> Annual UC Statistical Mechanics Conference, Santa Barbara, CA, Invited Speaker Columbia University, New York, NY University of Pennsylvania, Philadelphia, PA American Chemical Society National Meeting, Boston, MA, Invited Speaker and Poster Presentations Ultrafast Phenomena VII, Monterey, CA, Poster Presentation XVII IQEC, Anaheim, CA Contributed Oral Presentation, Discussion Leader Gordon Conference on Organometallic Chemistry, Newport, Rhode Island, Invited Speaker National Institute of Health Meeting on Heme Proteins, Bethesda, MD The Solvated Electron: Past, Present, and Future, Argonne, IL, Invited Speaker 11th International Meeting on Solution Chemistry, Ottawa, Canada, Invited Plenary Lecture Gordon Conference on Water, Holderness, NH, Invited Discussion Leader, Poster Presentation American Chemical Society National Meeting, Washington, D.C., Invited Speaker International Laser Science Meeting, Minneapolis, MN, Invited Speaker Massachusetts Institute of Technology, Boston, MA. Optical Society of America Annual Meeting, Boston, MA, Invited Speaker Ohio State University, Columbus, OH

Harvard University, Cambridge, MA Lasers '90, San Diego, CA, 3 Contributed Talks

### 1991

International Meeting of the SPIE, Los Angeles, CA, Invited Speaker (2 symposia) West Coast Spectroscopy Association Meeting, Asilomar, CA, Chairman of Conference, Posters University of California at San Diego, San Diego, CA, Departmental Colloquium National Meeting of the Biophysical Society, San Francisco, CA, Contributed Talk University of Southern California, Los Angeles, CA Williams College, Williamstown, MA, Distinguished Scholar Speaker Program University of Rochester, Rochester, NY University of California at Los Angeles, Los Angeles, CA Gordon Conference on the Chemistry and Physics of Liquids, Holderness, NH, Poster Presentation FRIS Workshop on Fast Reaction Dynamics, Banff, Alberta, Canada, Invited Plenary Speaker University of Minnesota, Minneapolis, MN

### 1992

Inter-American Photochemical Society Meeting, Clearwater Beach, Fl, Invited Speaker SPIE Meeting on Condensed Phase Chemical Processes, Los Angeles, CA, Invited Speaker West Coast Spectroscopy Association Meeting, Asilomar, CA, Poster Presentations California Institute of Technology, Pasadena, CA Dartmouth University, Hanover, NH San Diego State University, San Diego, California Pacific Northwest Laboratories, Pasco, WA, Invited Plenary Speaker Pacific Northwest Laboratories, Pasco, WA, Invited Lecture at MSRC Ultrafast Phenomena VIII, Antibes-Juan-Les-Pins, France, Contributed Talk Reaction Processes in Solution Workshop, Telluride, CO, Invited Speaker High School Teachers Workshop, Poway, CA, Invited Speaker Continuing Education, La Jolla, CA, Seven Half-Day Lectures ACS National Meeting, Washington, D.C., Invited Speaker FACSS Meeting, Philadelphia, PA, Invited Speaker University of Pennsylvania, Philadelphia, PA Pennsylvania State University, College Station, PA University of Wisconsin, Madison, WI University of Northern Illinois, Dekalb, IL Argonne National Laboratory, Argonne, IL

## 1993

Elementary School Teachers Workshop, UCSD, La Jolla, CA
Washington University, St. Louis, MI
High School Teachers Workshop, UCSD, La Jolla, CA
Duke University, Durham, NC
University of North Carolina, Chapel Hill, NC
University of California at Santa Cruz, Santa Cruz, CA
Ultrafast Reaction Dynamics and Solvent Effects, Royaumont, France, Invited Speaker and Member of Organizing Committee
Elementary School Teachers Workshop, National City, CA

Elementary School Teachers Workshop, Vista, CA
International Conference on Photochemistry, Vancouver, Canada, Poster Presentation
Gordon Conference on the Chemistry and Physics of Liquids, Holderness, NH, Invited Speaker
International Conference on Luminescence and Optical Spectroscopy of Condensed Matter, Storrs, CT, Contributed Talk
Georgetown University, Washington, D.C.
Physics Colloquium, UCSD, La Jolla, CA
Western Regional ACS Meeting, Pasadena, CA, Invited Speaker, Contributed Talk
Vanderbilt University FEL Center, Nashville, TN
Vanderbilt University, Nashville, TN
UCLA, Los Angeles, Ca, Molecular Spectroscopy Symposium in honor of M. A. El-Sayed, Invited Speaker and co-organizer

#### 1994

West Coast Spectroscopy Meeting, Asilomar, CA, Contributed Posters Brown University, Providence, RI Princeton University, Princeton, RI ACS National Meeting, San Diego, CA, Invited Talks (2 symposia) University of Illinois, Urbana-Champagne, IL Vanderbilt University, Nashville, TN, Invited Physics Colloquium Ultrafast Phenomena IX, Dana Point, CA, Contributed Posters International Meeting on Raman Spectroscopy, Hong Kong, Invited Speaker, Poster Presentation ACS National Meeting, Washington, D.C., Invited Speaker (2 symposia)

#### 1995

University of Michigan, Ann Arbor, MI

Center for Ultrafast Optical Sciences, Ann Arbor, MI

Biophysical Society Meeting, San Francisco, CA, Contributed Talk

ACS National Meeting, Anaheim, CA, Poster Presentation

Seventh International Conference on Time-Resolved Vibrational Spectroscopy, Sante Fe, NM, Invited Speaker, Poster Presentations

31st Annual ACS Western Regional Meeting and 4th Annual San Diego Biotech Exposition, Contributed Talk

IX International Symposium on Ultrafast Processes in Spectroscopy, Treiste, Italy, Invited Speaker

University of Kansas, Lawrence, KA

### 1996

Indiana University, Bloomington, IN University of Rochester, Rochester, NY Ultrafast Phenomena X, San Diego, CA, Contributed Talk CLEO/ILS, Anaheim, CA, Contributed Talk 24th Meeting of the Photochemistry/Photobiology Society, Atlanta, GA, Poster Presentations Gordon Conference on Vibrational Spectroscopy, New England College, NH, Invited Speaker 12th International Congress on Photobiology, Vienna, Austria, Poster Presentation Duke University, Durham, NC Cornell University, Ithaca, NY

American Chemical Society National Meeting, San Francisco, CA, Poster Presentations National Meeting of the American Photobiological Society, St. Louis, MI, Contributed Talk and

Poster Presentation

XVIII International Conference on Photochemistry, Warsaw, Poland, Contributed Talk

### 1998

Inter-American Photochemical Society, Clearwater Beach, Fl, Invited Speaker
California Institute of Technology, Pasadena, CA
American Society for Photobiology, Contributed Talk and Poster Presentations
8th Annual Meeting of the Pan-American Society for Pigment Cell Research, Snowmass, CO, Contributed Talk
Healthy Woman Report on Good Morning America
The World Today", BBC Radio
Eastern Carolina University
Southeast Regional ACS Meeting, Durham, NC, Invited Speaker, Contributed Talk, Poster Presentations

National Academy of Sciences: Frontiers in Science, Irvine, CA, Invited Speaker

### 1999

Femtosecond Spectroscopy Symposium, Atlanta, GA, Plenary Lecture

University of North Carolina, Chapel Hill, NC

Annual Meeting of the Biophysical Society, Baltimore, MD, Poster Presentation

University of Chicago, Gerhard Closs Lecture Series

Department of Biochemistry, Duke University

North Carolina State University, Raleigh, NC

Centennial Meeting of the American Physical Society, Atlanta, GA Invited Speaker, Contributed Talk, Poster Presentation

William and Mary College, Williamsburg, VA

North Carolina Local ACS Meeting, Chapel Hill, NC, Contributed Talk, Poster Presentations

Florida Local ACS Meeting, Award Symposium in Honor of Mostafa A. El-Sayed, Invited Speaker

Annual Meeting of the Society of Cosmetic Chemists, Chicago, IL, Contributed Talk Society for Investigative Dermatology, Chicago, IL, Poster Presentations

Annual Meeting of the American Society for Photobiology, Washington, DC. Contributed Talk

International Conference on Photochemistry: (Co-Chair of Meeting), Poster Presentations

European Society for Photobiology, Granada, Spain, Invited Speaker

Florida Meeting of the Cosmetic Chemistry Society, Orlando, Fl, Plenary Lecture

XVII International Pigment Cell Conference, Nagoya, Japan, Poster Presentations

## 2000

Inter-American Photochemical Society, Clearwater Beach, Fl, Poster Presentation Distinguished Professor Luncheon Series, Duke University, Durham, NC Wake Forest University, Winston-Salem, NC Harvard University, Cambridge, MA Colorado State University, Fort Collins, CO University of Colorado, Boulder, CO Carnegie Melon University, Pittsburgh, PA Photobiology Congress, San Francisco, CA, Invited Speaker, Contributed Talk, Posters Ultrafast Phenomena, Charleston, SC, Poster Presentation XVIII IUPAC Symposium on Photochemistry: Virtual Poster Session Laser Applications in Life Sciences, Tokyo, Japan, Invited Speaker, Poster Presentations The 6th International Conference on Near Field Optics and Related Techniques. University of Twente, The Netherlands, Poster Presentation Unilever Research US, Edgewater, NJ Southeast Regional Meeting on Optoelectronics, Photonics and Imaging, Charlotte, NC, Contributed Talk Biochemistry Department Retreat, Wrightsville Beach, NC Duke University, Durham, NC, Department of Ophthalmology Franklin and Marshall College University of Pennsylvania, Philadelphia, PA University of Kansas, Lawrence, KA Jagiellonian University, Department of Molecular Biophysics, Krakow, Poland Pacifichem, Honolulu, HA, Poster Presentation 2001 Georgia Institute of Technology, Atlanta, GA

Georgia Institute of Technology, Atlanta, GA

5<sup>th</sup> UNCW Symposium on Chemistry and Biochemistry, Wilmington, NC, Invited Speaker National Meeting of the American Chemical Society, San Diego, CA, Contributed Talk

National Institutes of Environmental Health Sciences, Research Triangle Park, NC

ARVO, Fort Lauderdale, Fl, Contributed Posters

Photoprotection, European Society for Photobiology Symposium, Krakow, Poland, Invited Speaker

Jagiellonian University, Department of Molecular Biophysics, Krakow, Poland

Annual Meeting of the American Society for Photobiology, Chicago, Il, Invited Speaker, Contributed Talks and Posters

15<sup>th</sup> Symposium of the Protein Society, Philadelphia, PA, Poster Presentation

European Society for Photobiology, Lillehammer, Norway, Invited Speaker, Contributed Talk 9<sup>th</sup> European Conference on the Spectroscopy of Biological Molecules, Prague, Invited Speaker

European Pigment Cell Society, Rome, Italy, co-author Invited Talk

Biochemistry Department Retreat, Wrightsville Beach, NC

8<sup>th</sup> Annual Meeting of the Oxygen Society, Research Triangle Park, NC, Posters

## 2002

Shepens Eye Research Institute, Boston, MA University of California at Davis University of California at Santa Cruz Symex Corporation, San Jose, CA Molecular Biophysics Seminar Series, Duke University Medical Center American Chemical Society National Meeting, Orlando, FL Davidson College, Davidson, NC Unilever Research USA ARVO, Fort Lauderdale, Fl Beckman Scholar Program Lecture Series, Duke University, Durham, NC High School Teacher Outreach Program at Duke University Georgia Institute of Technology, Atlanta, GA American Society for Photobiology, Quebec City, Quebec Biochemistry Department Retreat, Blowing Rock, NC XVIII International Pigment Cell Conference, Egmond aan Zee, The Netherlands Vanderbilt University, Nashville, TN Oxygen Society Meeting, San Antonio, TX Procter and Gamble, Cincinnati, OH Wellman Laboratories, Harvard University, Boston, MA

#### 2003

InterAmerican Photochemistry Society Meeting, Clearwater, FL Department Colloquium, Duke University, Durham, NC American Physical Society, Austin, TX Biophysical Society, San Antonio, TX Experimental Biology 2003, San Diego, CA University of Ottawa, Ottawa, Canada National Institutes of Health, Bethesda, MD Department of Biology, Duke University, Durham, NC Fitzpatrick Center for Photonics and Communications Sciences, Durham, NC Gordon Conference on Mycotoxins and Phycotoxins, Waterville, MN American Society for Photobiology, Baltimore, MD Gordon Conference on Photochemistry, Mt. Holyoke, MA Pan American Pigment Cell Society, Cape Cod, MA European Society for Photobiology, Vienna, Austria European Pigment Cell Society, Ghent, Belgium Wellesley College, Wellesley, MA Biochemistry Department Retreat, Wrightsville Beach, NC Southeast Regional ACS Meeting, Atlanta, GA

### 2004

Procter and Gamble, Cincinnati, OH FASEB, Washington, DC U.S. Food & Drug Administration, Jefferson, AR Pigment Cell Development Workshop, NIH National Institute of Environmental Health Sciences, RTP, NC ICP2004, ASP Plenary Lecturer, Chechu, Korea Allergan, Irvine, CA Pan American Pigment Cell Society, Invited Lecture, Newport Beach, CA American Society for Photobiology, Seattle, WA Free Electron Laser Laboratory, Durham, NC Procter and Gamble, Cincinnati, OH Williams College SERMACS, Research Triangle Park, NC

FEL Workshop, Durham, NC Congress on Ophthalmology and Optometry China, Shanghai (K. Wakamatsu) 46<sup>th</sup> Experimental Nuclear Magnetic Resonance Conference, Providence, RI (L. Hong) Moderator, Duke Frontiers, Durham, NC American Society for Mass Spectrometry (W. Ward) ACS National Meeting, Washington DC, invited talk LCMS 2005, Ithaca, NY (W. Ward) Fitzpatrick Optics Center, Duke University European Photobiology Meeting, Aix-les-Bains, France (W. Bush, W. Ward) International Pigment Cell Congress, Washington DC (W. Bush, L. Hong, W. Ward) Medical Free Electron Laser Meeting, Palo Alto, CA

### 2006

Wake Forest University, Department of Physics University of North Carolina, UNC Melanoma Interest Group NC Distinguished Speaker, NC Regional ACS, Durham, NC American Society for Mass Spectrometry, Indianapolis, IN (W. Ward) American Council on Education, Fellows Opening Seminar, Lisle, IL European Pigment Cell Society Meeting, Barcelona, Spain (J. Hatcher, W. Ward, D. Bush)

### 2007

American Council on Education, Mid-Year Seminar, Burlingame, CA
Seeing is Believing, The Future of Molecular and Biomolecular Imaging, Durham, NC
Carolina Photonics Day, Durham, NC (opening remarks)
Mass Spectroscopy Symposium, Nashville, TN (W. Ward)
American Society for Mass Spectrometry, Indianapolis, IN (W. Ward, oral presentation)
Southeastern ACS Regional Meeting, Durham, NC (W.Ward)
Current Trends in Microcalorimetry, Boston, MA (D. Bush, J. Hatcher)
Gordon Conference on Photochemistry, Bryant University, RI (Invited)
Chemistry and Physics of Lipids Gordon Conference, Holderness, NH (W. Ward)
Materials Research Society, San Francisco, CA (W. Kong)
National Meeting of the American Chemical Society, Boston, MA (J. Hatcher)
European Society for Pigment Cell Research, Bari, Italy (Invited, Dana Peles, Luigi Zecca)

### 2008

Materials Research Society, San Francisco, CA (R. Nemanich) American Chemical Society National Meeting, New Orleans, LA (T. Carducci) Pfizer, La Jolla, CA American Society for Photobiology Meeting, Burlingame, CA (invited and Award talk) Protein Society Annual Meeting, San Diego, CA (L. Hong) American Chemical Society National Meeting, Philadelphia, PA (T. Carducci) Oberlin College, Oberlin, OH

## 2009

SPIE Photonic West, San Jose, CA (D. Peles)

"Evaluating Research Performance: What Publishers Should Know Today"; Professional & Scholarly Publishing Annual Meeting (Invited Speaker/Panel Participant) Association for Research in Vision and Ophthalmology, Ft. Lauderdale, Fl (E. Gaillard) American Chemical Society National Meeting, Washington DC (L. Hong) European Photobiology Society Meeting, Worclaw, Poland (D. Peles)

## 2010

Duke Leadership Academy, Durham, NC UNDP Pilot Leadership Program, DCID, Durham, NC American Council on Education: Leadership Workshop, Rochester, NY COFHE: Academic Assessment and Accreditation Panel, Smith College, North Hampton, MA Executive education program on management and innovation of higher education for academic leaders from the city of Xi'an, China, DCID, Durham, NC

## 2011

NC Society of Toxicology, Research Triangle Park, NC (J. Hou, D. Szaflarski) Facilitating Interdisciplinary Research and Education, Boulder, CO (S. Roth) American Council on Education: Leadership Workshop, Madison, WI International Pigment Cell Conference, Bordeaux, France (Keely Glass)

## 2012

244<sup>th</sup> National Meeting of the American Chemical Society, Philadelphia, PA (Keely Glass) Convocation Speaker, University of Virginia Keynote Speaker, Library Assessment Conference, Charlottesville, VA Pan American Pigment Cell Research, Park City, UT (Keely Glass)

# 2013

SERMACS, Atlanta, GA (Symposium in Honor of Mostafa El-Sayed)

# 2014

Staying Ahead of the Curve: Successful Strategic Planning, University Leadership Summit, Eau Palm Beach, FL

### **Ph.D. Students and Dissertations**

### A. UCSD

Shyh-Gang Su (1989) The intramolecular electron transfer reactions and solvation dynamics of twisted intramolecular charge transfer molecules in alcohols

Xiaoliang Xie (1990) Picosecond time resolved circular dichroism spectroscopy

Peggy A. Thompson (1992) Electrolyte effects on the dynamics of chemical reactions in solution

Messmer, Marie Cecilia (1992) Picosecond laser studies of charge transfer reactions

Dunn, Robert Conley (1993) Condensed phase dynamics of OCIO

Doolen, Robert Douglas (1994) Picosecond dynamics of charge transfer reactions in solution

Deuel, Hans Pascal (1995) Condensed phase anisotropic librational dynamics

Kerry M. Hanson (1998) A Spectroscopic Investigation of the Epidermal Chromophore trans-Urocanic Acid

### **B. Duke University**

Nofsinger, J.Brian (2001) Toward an Understanding of Structure-Function Relationships for Eumelanin

Grynaviski, Nicole H. (2002) Application and Development of a Spectrally-Resolved Confocal Microscope: A Study of Lipofuscin Emission Properties

Perry, Jennifer L. (2003) Transport and Toxicity of Ochratoxin A

Kempf, Valerie R. (2005) Structural and Functional Studies of *Sepia* and Human Melanins

Hong, Lian (2006) Physiochemical Properties of Ocular Melanosomes Bush, William D. (2008) Biophysical Studies of Melanins and Amyloid-β Peptides

Weslyn Ward (2008) Molecular Analyses of Melanins and Neuromelanins

Dana Peles (2011) Applications of Photoemission Electron Microscopy to Melanin and Melanosomes

Keely Glass (2014) Chemical and Physical Analysis of Melanin in Complex Biological Matrices

## M.A. Students

A. UCSD Honkanen, Mark (1987) Harrison, Blair (1997)

### **B.** Duke University

Lamb, Laura (2004)

Post Doctoral Fellows and Visiting Scientists A. UCSD

Dr. Richard Kanner, 1988 - 1990 Ph. D., University of California, Los Angeles

Dr. Peijun Cong, 1992 - 1995 Ph. D., California Institute of Technology

Dr. Yong Joon Chang, 1994 - 1996 Ph. D., Louisiana State University

Dr. Bulang Li, 1994 - 1996 Ph. D., University of Rochester

## **B. Duke University**

Dr. Susan Forest, 1996 – 1999 Ph. D., University of Michigan

Dr. Michael Stimson, 1997 – 1999 Ph. D., Cornell University

Dr. Maurice Edington, 1998-1999 Ph. D., Vanderbilt University

Dr. Shannon Studer-Martinez, 1998-1999

Ph. D., University of South Carolina

Dr. Stuart Pullen, 1998 - 1999 Ph. D., University of Michigan

Dr. Chris Clancy 1999-2000 Ph. D., University of North Carolina

Dr. Yuri Il'ichev 1999-2002 Ph. D., Moscow State University

Dr. Tong Ye 1999-2002 Ph. D., Xi'An Institute of Optics, PRC

Dr. Yan Liu 2001-2004 Ph. D., Columbia University

Dr. Malgorzata Rozanowska 2002-2003 Ph. D., Jagiellonian University

Dr. Alexander Samokhvalov 2002-2004 Ph. D. Weizmann Institute of Science

Dr. Lian Hong 2006-2010 Ph. D. Duke University

Dr. Jacob Garguilo 2006-2007 Ph. D. North Carolina State University

Dr. Lanying Hatcher 2005-2008 Ph. D. Johns Hopkins University

Dr. Jie Hou 2009-2011 Ph. D. Wuhan University

#### Independent Undergraduate Research Study Students, Duke University

Kirby Drake 1998 - 1999 James Floyd 1998 - 2000 Amanda Harris 1998 - 1999 Carla Ranson 1999 - 2000 Marcos Garcia 1999-2000 Kate Gold 1999-2000 R. Kyle Hanks 1999-2000 Emily Weinert 2000-2001 Ryan Combes 2000 Sotirios N. Plakoudas 2000-2001 T. Richard Williams 2000-2004 George Whitener 2001-2002 Jamal McClendon 2001-2003 Margaret Wat 2002-2003 Carmenetta Mitchell 2003-2004 Anay Patel 2005 Laura Anzaldi, 2005 Ciara Nugent, 2005-2006 William Lee 2005-2007 Mark Johnson 2006 - 2007 Erin Lamb 2006-2007 Tessa Carducci 2007-2009 Alexander Pratt 2007-2008 Richard Garling 2006-2008 Virginia Workman 2008-2009 Allison Elia 2008-2009 Erica Lin 2010 Rolando Rengifo 2010

# **Project SEED High School Students**

Jill Homer 1998 Shakara Tate 1998, 1999 Maaz Aziz 1999 Princeton Leathers 2009