Publications:

1. C.H. Lochmüller and S.S. Saavedra, *Anal. Letters*, **1986**, *19*, 47-64. "Sample and Sorbent Integrity During Combustion Source Sampling."
2. C.H. Lochmüller and S.S. Saavedra, *Anal. Chem.*, **1986**, *58*, 1978-1981. "Conformational Changes in a Soil Fulvic Acid Measured by Time-Dependent Fluorescence Depolarization."
3. C.H. Lochmüller and S.S. Saavedra, *J. Amer. Chem. Soc.*, **1987**, *109*, 1244-1245. "Interconversion of Conformation of Apomyoglobin Adsorbed to Hydrophobic Silica Gel."
4. C.H. Lochmüller and S.S. Saavedra, *Langmuir*, **1987**, *3*, 433-438. "Intrinsic Fluorescence Characteristics of Apomyoglobin Adsorbed to Microparticulate Silica."
5. S.S. Saavedra, A.W. Grobin, and C.H. Lochmüller, *Anal. Chem.*, **1988**, *60*, 2156-2158. "Fluorescence of Chemically Modified Papain Adsorbed to Silica Gel."
6. S.S. Saavedra and C.H. Lochmüller, "The Adsorption of Proteins on Chemically Modified Hydrophobic Surfaces", in *Chemically Modified Surfaces in Science and Industry*, D.E. Leyden and W.T. Collins, Eds.; Gordon and Breach, New York, **1988**; pp. 67-77.
7. S.S. Saavedra and E.G. Picozza, *Analyst*, **1989**, *114*, 835-838. "Time-Resolved Fluorimetric Detection of Tb-Labelled DNA Separated by Gel Electrophoresis."
8. S.S. Saavedra and W.M. Reichert, *Appl. Spectrosc.*, **1990**, *44*, 1210-1217. "Prism Coupling Into Polymer Integrated Optical Waveguides with Liquid Superstrates."
9. D.S. Walker, S. Putegnat, S.S. Saavedra and W.M. Reichert, *Opt. Comm.*,**1990**, *78*, 128-132. "Apparent Inequivalence Between the In- and Outcoupling Angles of Prism Coupled IO Waveguides."
10. S.S. Saavedra and W.M. Reichert, *Appl. Spectrosc.*, **1990**, *44*, 1420-1423. "A Flow Cell for Mode-Specific, Integrated Optical Waveguide Spectroscopy in Aqueous Superstrates."
11. S.S. Saavedra and W.M. Reichert, *Anal. Chem.*, **1990**, *62*, 2251-2256. "Integrated Optical Attenuated Total Reflection Spectrometry of Aqueous Superstrates Using Prism-Coupled Polymer Waveguides."
12. B.L. Potter, D.S. Walker, L. Greer, S.S. Saavedra and W.M. Reichert, *Proc. SPIE-Int. Soc. Opt. Eng.*, **1991**, *1368*, 251-257. "Multimode, Multilaser Coupling into Polymer Thin Film Waveguides."
13. S.S. Saavedra and W.M. Reichert, *Langmuir*, **1991**, *7*, 995-999. "In Situ Quantitation of Protein Adsorption Density by Integrated Optical Waveguide ATR Spectrometry."
14. W.M. Reichert and S.S. Saavedra, "Materials Considerations in the Selection, Performance and Adhesion of Polymeric Encapsulants for Implantable Sensors", in *Materials Science and Technology - A Comprehensive Treatment, Vol. 14 - Medical and Dental Materials*, D.F. Williams, Ed.; VCH, Weinheim, FRG, **1991**; pp. 303-341.
15. M.D. Garrison, D.J. Iuliano, S.S. Saavedra, G.A. Truskey, and W.M. Reichert, *J. Colloid Interface Sci.*, **1992**, *148*, 415-424. "Postadsorption Changes in the Emission Maximum of Acrylodan-Labelled Bovine Serum Albumin Using Total Internal Reflection Fluorescence."
16. D.J. Iuliano, S.S. Saavedra, and G.A. Truskey, *J. Biomed. Mat. Res.*, **1993**, *27*, 1103-1113. "The Effect of the Conformation and Orientation of Adsorbed Fibronectin on Endothelial Cell Spreading and the Strength of Adhesion."
17. P.L. Edmiston, S. Kölchens and S.S. Saavedra, *Appl. Spectrosc.*, **1993**, *47*, 250-253. "Temporally Gating a Slow-Scan CCD With a Liquid Crystal Shutter."
18. D.S. Walker, H.W. Hellinga, S.S. Saavedra and W.M. Reichert, *J. Phys. Chem.*, **1993**, *97*, 10217-10222. "Integrated Optical Waveguide ATR Spectrometry and Resonance Raman Spectroscopy of

Adsorbed Cytochrome *c*."

19. J.E. Lee and S.S. Saavedra, *Anal. Chim. Acta*, **1994**, *285*, 265-269. "Evanescent Sensing in Doped Sol-Gel Glass Films."

20. P.L. Edmiston, C.L. Wambolt, M.K. Smith, and S.S. Saavedra, *J. Colloid Interface Sci.*, **1994**, *163*, 395-406. "Spectroscopic Characterization of Albumin and Myoglobin Entrapped in Bulk Sol-Gel Glasses."

21. F. Banovac, S.S. Saavedra, and G.A. Truskey, *J. Colloid Interface Sci.*, **1994**, *165*, 31-40. "Local Conformational Changes to Vitronectin Upon Adsorption to Glass and Silane Surfaces."

22. L. Yang, S.S. Saavedra, N.R. Armstrong, and J. Hayes, *Anal. Chem.*, **1994**, *66*, 1254-1263. "Fabrication and Characterization of Low Loss, Sol-Gel Planar Waveguides."

23. L. Yang and S.S. Saavedra, *Anal. Chem.*, **1995**, *67*, 1307-1314. "Chemical Sensing Using Sol-Gel Derived Planar Waveguides and Indicator Phases."

24. S. Phimphivong, S. Kölchens, P.L. Edmiston and S.S. Saavedra, *Anal. Chim. Acta.*, **1995**, *307*, 403-417. "Time-Resolved, Total Internal Reflection Fluorescence Microscopy of Cultured Cells Using a Tb Chelate Label."

25. S. Mendes, Lifeng Li, J. Burke, J.E. Lee, and S.S. Saavedra, *Appl. Optics*, **1995**, *34*, 6180-6186. "70 Nanometer Bandwidth Achromatic Waveguide Coupler."

26. J.E. Lee and S.S. Saavedra, in *Proteins at Interfaces II*, T.A. Horbett and J.L. Brash, Eds.; *ACS Symposium Series 602*; American Chemical Society: Wash., D.C., **1995**, pp. 269-79. "Molecular Orientation in Adsorbed Cytochrome *c* Films by Planar Waveguide Linear Dichroism."

27. P.L. Edmiston, L.L. Wood, J.E. Lee, and S.S Saavedra, *J. Phys. Chem.*, **1996**, *100*, 775-784. "Dipole Orientation Distributions in Langmuir-Blodgett Films by Planar Waveguide Linear Dichroism and Fluorescence Anisotropy."

28. L. Yang, S.S. Saavedra, and N.R. Armstrong, *Anal. Chem.*, **1996**, *68*, 1834-1841. "Sol-Gel Based, Planar Waveguide Sensor for Gaseous Iodine."

29. C.L. Wambolt and S.S. Saavedra, *J. Sol-Gel Sci. Tech.*, **1996**, *7*, 53-57. "Iodide Fluorescence Quenching of Sol-Gel Immobilized BSA."

30. S. Mendes, L. Li, J. Burke, J.E. Lee, and S.S. Saavedra, *Langmuir*, **1996**, *12*, 3374-3376. "Broad-Band Attenuated Total Reflectance Spectroscopy of a Hydrated Protein Film on a Single Mode Planar Waveguide."

31. J.E. Lee and S.S. Saavedra, *Langmuir*, **1996**, *12*, 4025-4032. "Molecular Orientation in Heme Protein Films Adsorbed to Hydrophilic and Hydrophobic Glass Surfaces."

32. D. Dunphy, S. Mendes, L. Li, J. Burke, J.E. Lee, S.S. Saavedra, and N.R. Armstrong, in *New Trends in Electroanalytical Chemistry*, J. Leddy and M. Wightman, Eds.; *Proc.-Electrochem. Soc.*, **1996**, *96-9*, 174-185. "Electroactive Integrated Optic Waveguides (EA-IOWs): Spectroelectrochemistry in Ultrathin Film Materials."

33. P.L. Edmiston, J.E. Lee, S.-S. Cheng, and S.S Saavedra, *J. Amer. Chem. Soc.*, **1997**, *119*, 560-570. "Molecular Orientation Distributions in Protein Films. I. Cytochrome *c* Adsorbed to Substrates of Variable Surface Chemistry."

34. L.L. Wood, S.-S. Cheng, P.L. Edmiston, and S.S Saavedra, *J. Amer. Chem. Soc.*, **1997**, *119*, 571-576. "Molecular Orientation Distributions in Protein Films. II. Site-Directed Immobilization of Yeast Cytochrome *c* on Thiol-Capped, Self-Assembled Monolayers."

35. S.B. Mendes, L. Li, J. Burke, and S.S. Saavedra, *Opt. Comm.*, **1997**, *136*, 320-326. "Achromatic Prism-Coupler for Planar Waveguide."

36. L. Yang, M.J. Huskey, N.R. Armstrong, and S.S. Saavedra, *Polymeric Materials Science and Engineering*, **1997**, *76*, 453. "Chemical and Biochemical Sensors Based on Sol-Gel Derived, Laminate Planar Waveguide Structures."

37. D.R. Dunphy, S.B. Mendes, S.S. Saavedra, and N.R. Armstrong, *Anal. Chem.*, **1997**, *69*, 3086-3094. "The Electroactive Integrated Optical Waveguide (EA-IOW): Ultrasensitive Spectroelectrochemistry of Submonolayer Adsorbates."

38. L.A. Wenzler, G.L. Moyes, G.N. Raikar, R.L. Hansen, J.M. Harris, T.P. Beebe, Jr., L.L Wood and S.S. Saavedra, *Langmuir*, **1997**, *13*, 3761-3768. "Measurements of Bond Rupture Forces Between Self-Assembled Monolayers of Organosilanes with the Atomic Force Microscope."

39. P.L. Edmiston and S.S Saavedra, *Chem. Mater.*, **1997**, *9*, 2599-2603. "Fabrication and Characterization of Uranium Oxide Doped Sol-Gel Planar Waveguides for Attenuated Total Reflectance Spectrometry."

40. P.L. Edmiston and S.S Saavedra, *Biophys. J.*, **1998**, *74*, 999-1006. "Molecular Orientation Distributions in Protein Films. III. Yeast Cytochrome *c* Immobilized on Pyridyl Disulfide Capped Phospholipid Bilayers."

41. P.L. Edmiston and S.S Saavedra, *J. Amer. Chem. Soc.*, **1998**, *120*, 1665-1671. "Molecular Orientation Distributions in Protein Films. IV. Yeast Cytochrome *c* Biospecifically Bound to Streptavidin Immobilized to a Biotin Capped, Planar Supported Phospholipid Bilayer."

42. S. Phimphivong and S.S. Saavedra, *Bioconjugate Chem.*, **1998**, *3*, 350-357. "Terbium Chelate Membrane Probe for Time-Resolved, Total Internal Reflection Fluorescence Microscopy of Substrate-Adherent Cells."

43. T.E. Plowman, S.S. Saavedra, and W.M. Reichert, *Biomaterials*, **1998**, *19*, 341-355. "Planar Integrated Optical Methods for Examining Thin Films and Their Surface Adlayers."

44. N.R. Armstrong, D. Dunphy, P. Smolenyak, H. Rengel, S. Mendes, S.S. Saavedra, D.F. O'Brien, G. Wegner, *Polym. Prepr.*, **1998**, *39*, 723-724. "Electrochemical Processes of the Polyphthalocyaninatosiloxanes and Related Cofacially Aggregated Phthalocyanine Assemblies."

45. S.B. Mendes, J. Burke, S.S. Saavedra, L. Li, and N. Peyghambarian, *Optical Interference Coatings - OSA Technical Digest Series*, **1998**, *9*, 397-399. “How to determine the spectral properties of a 3-nm thin film?”

46. Peter J. Skrdla, S. Scott Saavedra, Neal R. Armstrong, Sergio B. Mendes, and N. Peyghambarian, *Anal. Chem.*, **1999**, *71*, 1332-1337. "Sol-Gel Based, Planar Waveguide Sensor for Water Vapor."

47. Sergio B. Mendes and S. Scott Saavedra, *Optics Express*, **1999**, *4*, 449-456. "On Probing Molecular Monolayers: A Spectroscopic Optical Waveguide Approach of Ultra-Sensitivity."

48. D.R. Dunphy, Sergio B. Mendes, L. Li, J.J. Burke, J.E. Lee, N.R. Armstrong, and S. Scott Saavedra, *Proc. SPIE-Int. Soc. Opt. Eng.*, **1999**, *3602*, 140-148. "New Planar Waveguide Attenuated Total Reflectance Techniques for Organic Thin Film Spectrosocopy and Chemical Sensing."

49. D.R. Dunphy, S.B. Mendes, S.S. Saavedra, and N.R. Armstrong, in *Interfacial Electrochemistry*, A. Wieckowski, Ed., Marcel Dekker, New York, **1999**, Chapter 29. "Spectroelectrochemistry of Monolayer and Submonolayer Films Using an Electroactive Integrated Optical Waveguide."

50. P.E. Smolenyak, R.A. Peterson, D.R. Dunphy, S. Mendes, K.W. Nebesny, D.F. O'Brien, S.S.Saavedra, and N.R. Armstrong, *Porphyrins and Phthalocyanines*, **1999**, *3*, 620-633. "Formation and Spectroelectrochemical Characterization of Multilayer and Submonolayer Films of 2,3,9,10,16,17,23,24-octa(2-benzyloxyethoxy) Phthalocyaninato Copper ($CuPc(OC_2OBz)_8$)."

51. Peter J. Skrdla, S. Scott Saavedra, and Neal R. Armstrong, *Appl. Spectrosc.*, **1999**, *53*, 785-791. "Reduction of Indicator Leaching From Doped Sol-Gels by Attachment of Macromolecular Side-

Chains."

52. S. Scott Saavedra, Paul L. Edmiston, John E. Lee, Laurie L. Wood, Darren R. Dunphy, Rebecca T. Robertson, Elizabeth A. Gabbard, and Sergio B. Mendes, *Proc. SPIE-Int. Soc. Opt. Eng.*, **1999**, *3858*, 146-150. "Probing Structure and Function in Planar Supported Protein Films."

53. Sergio B. Mendes and S. Scott Saavedra, *Appl. Optics*, **2000**, *39*, 612-621. "A Comparative Analysis of Absorbance Calculations for Integrated Optical Waveguide Configurations by the Electromagnetic Wave Theory and the Ray Optics Model."

54. Yue-Zhong Du, Laurie L. Wood, and S. Scott Saavedra, *Materials Science & Engineering C*, **2000**, *7*, 161-169. "Growth Behavior and Structure of Alkyltrichlorosilane Monolayers Bearing Thioacetate and Acetate Termini."

55. John C. Conboy, Katherine D. McReynolds, Jacquelyn Gervay-Hague, and S. Scott Saavedra, *Angew. Chem. Int. Edit.*, **2000**, *39*, 2882-2884. "Gp120 Binds Cooperatively to Several Biologically Relevant Glycosphingolipids: Quantitative Measurements at Equilibrium Using Total Internal Reflection Fluorescence Microscopy."

56. L.A. Erlich, P.J. Skrdla, W.K. Jarrell, J.W. Sibert, N.R. Armstrong, S.S.Saavedra, A.G.M. Barrett, and B.M. Hoffman, *Inorganic Chemistry*, **2000**, *39*, 3963-3969. "Preparation of Polyetherol-Appended Sulfur Porphyrazines and Investigations of Peripheral Metal Ion Binding in Polar Solvents."

57. M.D. Senarath-Yapa and S.S. Saavedra, *Anal. Chim. Acta*, **2001**, *432*, 89-94. "Dye Leaching from a Doped Sol-Gel is Eliminated by Conjugation to a Dendrimer."

58. Eric E. Ross, Bruce Bondurant, Tony Spratt, John C. Conboy, David F. O'Brien, and S. Scott Saavedra, *Langmuir*, **2001**, *17*, 2305-2307. "Formation of Self-Assembled, Air-Stable Lipid Bilayer Membranes on Solid Supports."

59. Yingmei Gu, Rachel LaBell, David F. O'Brien, and S. Scott Saavedra, *Angew. Chem. Int. Edit.*, **2001**, *40*, 2320-2322. "Quantitative Studies of Binding Between Synthetic Galactosyl Ceramide Analogues and HIV-1 Gp120 at Planar Membrane Surfaces." Correction: **2001**, *40*, 2947.

60. Katherine D. McReynolds, Abhijit Bhat, John C. Conboy, S. Scott Saavedra, and Jacquelyn Gervay-Hague, *Bioorganic and Medicinal Chemistry*, **2002**, *10*, 625-637. "Non-Natural Glycosphingolipids and Structurally Simpler Analogs Bind HIV-1 Recombinant Gp120."

61. John C. Conboy, Katherine D. McReynolds, Jacquelyn Gervay-Hague, and S. Scott Saavedra, *J. Amer. Chem. Soc*., **2002**, *124*, 968-977. "Quantitative Measurements of Recombinant HIV-1 Surface Glycoprotein 120 Binding to Several Glycosphingolipids Expressed in Planar Supported Lipid Bilayers."

62. Asma El Kasmi, Michael C. Leopold, Ryan Galligan, Rebecca T. Robertson, S. Scott Saavedra, Kacem El Kacemi, and Edmond F. Bowden, *Electrochemistry Communications*, **2002**, *4*, 177-181. "Adsorptive Immobilization of Cytochrome *c* on Indium/Tin Oxide (ITO): Electrochemical Evidence for Electron Transfer Induced Conformational Changes."

63. Peter J. Skrdla, Neal R. Armstrong, and S. Scott Saavedra, *Anal. Chim. Acta*, **2002**, *455*, 49-52. "Starch-Iodine Films Respond To Water Vapor."

64. John T. Bradshaw, Sergio B. Mendes, and S. Scott Saavedra, *Anal. Chem.*, **2002**, *74*, 1751-1759. "A Simplified Broadband Coupling Approach Applied to Chemically Robust Sol-Gel, Planar Integrated Optical Waveguides."

65. Peter J. Skrdla, Sergio B. Mendes, Neal R. Armstrong, and S. Scott Saavedra, *J. Sol-Gel Sci. Technol*., **2002,** *24*, 167-173. "Planar Integrated Optical Waveguide Sensor for Isopropyl Alcohol in Water."

66. Walter J. Doherty III, Carrie L. Donley, Neal R. Armstrong, and S. Scott Saavedra, *Appl. Spectrosc*., **2002**, *56*, 920-927. "A Broadband Spectroelectrochemical ATR Instrument for Molecular Adlayer

Studies."

67. Eric Ross, Lynn Rozanski, Tony Spratt, Sanchao Liu, David F. O'Brien, and S. Scott Saavedra, *Langmuir* **2003**, *19*, 1752-1765. "Planar Supported Lipid Bilayer Polymers Formed by Vesicle Fusion. 1. Influence of Diene Monomer Structure and Polymerization Method on Film Properties."

68. Eric Ross, Lynn Rozanski, Tony Spratt, Sanchao Liu, David F. O'Brien, and S. Scott Saavedra, *Langmuir* **2003**, *19*, 1766-1774. "Planar Supported Lipid Bilayer Polymers Formed by Vesicle Fusion. 2. Adsorption of Bovine Serum Albumin."

69. John Thomas Bradshaw, Sergio B. Mendes, Neal R. Armstrong, and S. Scott Saavedra, *Anal. Chem* **2003**, *75*, 1080-1088. "Broadband Coupling Into a Single-Mode, Electroactive, Planar Integrated Optical Waveguide for Spectroelectrochemical Analysis of Surface Confined Redox Couples."

70. C.L. Donley, D.R. Dunphy, W.J. Doherty III, R.A.P. Zangmeister, A.S. Drager, D.F. O'Brien, S.S. Saavedra, and N.R. Armstrong, in *Molecules as Components in Electronic Devices*, M. Lieberman, Ed.; *ACS Symposium Series 844*; American Chemical Society: Wash., D.C., **2003**, pp. 133-153. "Indium-Tin Oxide/Organic Interfaces."

71. John C. Conboy, Sanchao Liu, David F. O'Brien, and S. Scott Saavedra, *Biomacromolecules* **2003**, *4*, 841-849. "Planar Supported Lipid Bilayer Polymers Formed by Langmuir-Blodgett Deposition and UV Irradiation."

72. Yue-Zhong Du and S. Scott Saavedra, *Langmuir*, **2003**, *19*, 6443-6448. "Molecular Orientation Distributions in Protein Films. V. Cytochrome *c* Adsorbed to a Sulfonate-Terminated, Self-Assembled Monolayer."

73. Anne F. Runge and S. Scott Saavedra, *Langmuir*, **2003**, *19*, 9418-9424. "Comparison of Microcontact Printed and Solution Adsorbed Cytochrome *c* Films on Indium Tin Oxide Electrodes."

74. S. Scott Saavedra, Eric E. Ross, David F. O'Brien, and Tony Spratt, *Polymeric Materials Science and Engineering*, **2003**, *88*, 254. "Highly stable planar supported lipid bilayer polymers."

75. Sergio B. Mendes, John Thomas Bradshaw, and S. Scott Saavedra, *Appl. Optics*, **2004**, *43*, 70-78. "Angular Orientation of Molecules Bound to the Surface of Arbitrary Planar Optical Waveguides."

76. S. Jones-Willy, W. Xia, S.S. Saavedra, N.R. Armstrong, in *Biological and Bio-Inspired Materials Assembly*, T. Deming, A.E. Barron, H.-A. Klok, Eds., *Mat. Res. Soc. Symp. Proc.*, **2004**, pp. H6.19.1-H6.19.3. "Patterned Deposition of Tobacco Mosaic Virus on Mica Surfaces."

77. Renée A. Lawton, Colin R. Price, Anne F. Runge, Walter J. Doherty III and S. Scott Saavedra, *Colloids and Surfaces A: Physicochem. Eng. Aspects*, **2005**, *253*, 213–215. "Air Plasma Treatment of Submicron Thick PDMS Polymer Films: Effect of Oxidation Time and Storage Conditions."

78. Ware H. Flora, Sergio B. Mendes, Walter J. Doherty III, S. Scott Saavedra, Neal R. Armstrong, *Langmuir*, **2005**, *21*, 360-368. "Determination of Molecular Anisotropy in Thin-Films of Discotic Assemblies Using Attenuated Total Reflectance UV-Visible Spectroscopy."

79. John Thomas Bradshaw, Sergio B. Mendes, and S. Scott Saavedra, *Analytical Chemistry*, **2005**, *77*, 28A-36A, "New Dimensions in Planar Integrated Optical Waveguide Spectroscopy."

80. Anne F. Runge, Nicole C. Rasmussen, S. Scott Saavedra, and Sergio B. Mendes, *J. Phys. Chem. B*, **2005**, *109*, 424-431. "Determination of Anisotropic Optical Constants and Surface Coverage of Molecular Films Using Polarized Visible ATR Spectroscopy. Application to Adsorbed Cytochrome *c* Films."

81. Chenhao Ge, Walter J. Doherty III, Sergio B. Mendes, Neal R. Armstrong, and S. Scott Saavedra, *Talanta*, **2005**, 65, 1126-1131. "Voltammetric and Waveguide Spectroelectrochemical Characterization of Ultrathin Poly(Aniline)/Poly(Acrylic Acid) Films Self-Assembled on Indium-Tin Oxide."

82. Todd W. McBee and S. Scott Saavedra, *Langmuir*, **2005**, *21*, 3396-3399. “Stability of Lipid Films Formed on γ-Aminopropyl Monolayers.”

83. Varuni Subramaniam, Isabel D. Alves, Gilmar F. J. Salgado, Pick-Wei Lau, Zdzislaw Salamon, Gordon Tollin, Victor J. Hruby, Michael F. Brown, and S. Scott Saavedra, *J. Amer. Chem. Soc*., **2005**, *127*, 5320-5321. “Rhodopsin reconstituted into a planar supported lipid bilayer retains photoactivity after cross-linking polymerization of lipid monomers.”

84. Walter J. Doherty III, Neal R. Armstrong, and S. Scott Saavedra, *Chem. Mater.*, **2005**, *17*, 3652-3660. “Conducting Polymer Growth in Porous Sol-Gel Thin Films: Formation of Nanoelectrode Arrays and Mediated Electron Transfer to Sequestered Macromolecules.”

85. Walter J. Doherty III, Adam G. Simmonds, Sergio B. Mendes, Neal R. Armstrong, and S. Scott Saavedra, *Appl. Spectros.*, **2005**, *59*, 1248-1256. “Molecular Ordering in Monolayers of a Perylene-Bisimide Dye by Attenuated Total Reflectance (ATR) UV-Visible Spectroscopy.”

86. Todd W. McBee, Liying Wang, Chenhao Ge, Brooke M. Beam, Ana L. Moore, Devens Gust, Thomas A. Moore, Neal R. Armstrong, and S. Scott Saavedra, *J. Amer. Chem. Soc.*, **2006**, *128*, 2184-2185. “Characterization of Proton Transport Across a Waveguide-Supported Lipid Bilayer.”

87. Walter J. Doherty III, Ronald J. Wysocki, Jr., Neal R. Armstrong, and S. Scott Saavedra, *J. Phys. Chem. B.*, **2006,** *110*, 4900-4907. “Potential-Modulated, Attenuated Total Reflectance Spectroscopy of Poly(3,4-Ethylenedioxythiophene) (PEDOT) and Poly(3,4-Ethylenedioxythiophene Methanol) (PEDTM) Copolymer Films on Indium-Tin Oxide.”

88. Anne F. Runge, S. Scott Saavedra, and Sergio B. Mendes, *J. Phys. Chem. B*, **2006**, *110*, 6721-6731. “Combination of Polarized TIRF and ATR Spectroscopies for Determination of the Second and Fourth Order Parameters of Molecular Orientation in Thin Films and Construction of an Orientation Distribution Based on the Maximum Entropy Method.”

89. Anne F. Runge, Sergio B. Mendes, and S. Scott Saavedra, *J. Phys. Chem. B*, **2006**, *110*, 6732-6739. “Order Parameters and Orientation Distributions of Solution Adsorbed and Microcontact Printed Cytochrome *c* Protein Films on Glass and ITO.”

90. Eric E. Ross, James R. Joubert, Ronald J. Wysocki, Jr., Tony Spratt, David F. O’Brien, and S. Scott Saavedra, *Biomacromolecules*, **2006**, *7*, 1393-1398. “Patterned Protein Films on Poly(Lipid) Films by Microcontact Printing.”

91. Walter J. Doherty III, Ronald J. Wysocki, Jr., Neal R. Armstrong, and S. Scott Saavedra, *Macromolecules*, **2006**, *39*, 4418-4424. “Electrochemical Copolymerization and Spectroelectrochemical Characterization of 3,4-Ethylenedioxythiophene (EDOT) and 3,4-Ethylenedioxythiophene Methanol (EDTM) Copolymers on Indium-Tin Oxide.”

92. Zeynep Ozkan Araci, Anne F. Runge, Walter J. Doherty III, and S. Scott Saavedra, *Israel Journal of Chemistry*, **2006**, *46*, 249-255. “Potential-Modulated Attenuated Total Reflectance Spectroscopy of Prussian Blue Films on ITO."

93. Chenhao Ge, Neal R. Armstrong, and S. Scott Saavedra, *Anal. Chem.*, **2007**, *79*, 1401-1410. “pH-Sensing Properties of Poly(Aniline) Ultrathin Films Self-Assembled on Indium-Tin Oxide.”