Inga H. Musselman NS&M Chemistry February 1, 2015

Educational history:

B.A., June 6, 1982, Gettysburg College, Gettysburg PA, Chemistry

Ph.D., May 8, 1988, University of North Carolina, Chapel Hill, NC, Analytical Chemistry
Dissertation Title: "Molecular and Quantitative Aspects of Laser Microprobe Mass Spectrometry for Inorganic Particle Analysis"
Dissertation Advisor: Dr. Richard W. Linton

Employment history – principal positions since the Bachelor's degree:

Acting Provost, 2015 – present, The University of Texas at Dallas, Richardson, TX

Senior Vice Provost, 2014 - present, The University of Texas at Dallas, Richardson, TX

Associate Provost (Faculty Affairs), 2008 - 2014, The University of Texas at Dallas, Richardson, TX

Professor, 2008 - present, Department of Chemistry, The University of Texas at Dallas, Richardson, TX

Associate Head, October 2003 - December 2008, Department of Chemistry, The University of Texas at Dallas, Richardson, TX
[Oct. 2003 - Oct. 2006, functioned as Interim Department Head while John Ferraris served as Interim Dean of Natural Sciences & Mathematics]

Associate Professor, 1998 - 2008, Department of Chemistry, The University of Texas at Dallas, Richardson, TX

Assistant Professor, 1992 - 1998, Department of Chemistry, The University of Texas at Dallas, Richardson, TX

Visiting Lecturer, 1991 - 1992, Department of Chemistry, The University of North Carolina at Chapel Hill, Chapel Hill, NC

Postdoctoral Research Associate, 1988 - 1991, Department of Materials Science and Engineering and Precision Engineering Center, North Carolina State University, Raleigh, NC
Scanning Tunneling Microscopy Tip Fabrication and Application of Scanning Probe Techniques to Polymer Microstructure
Postdoc Advisor: Dr. Phillip E. Russell

Research Chemist, 1983 - 1988, Gas and Particulate Science Division, Center for Analytical Chemistry, National Institute of Standards and Technology, Gaithersburg, MD

Graduate Research Assistant, 1984 - 1988, Department of Chemistry, University of North Carolina, Chapel Hill, NC

Graduate Teaching Assistant, 1982 - 1984, Department of Chemistry, University of North Carolina, Chapel Hill, NC

Professional recognitions and honors:

Departmental Honors in Chemistry, 1982, Gettysburg College

Student Travel Award, 1985 and 1987, Microbeam Analysis Society

Castaing Award for Best Student Paper, 1985, Microbeam Analysis Society
Title of paper: "The Use of Laser Microprobe Mass Analysis for Nickel Speciation in Individual Particles of Micrometer Size"

Travel Exhibit Award for Best Poster, 1990, Electron Microscopy Society of America
Title of poster: "Correlative STM, FESEM, and TEM Studies of Fibrillar Structures in Liquid Crystalline Polymers"

Honorary Member, 2001, Golden Key National Honor Society

Presidential Service Award, 2003, Microbeam Analysis Society

Professional memberships and offices:

Microbeam Analysis Society *(renamed Microanalysis Society in 2010)*

1984 - present	Member
1992-1995	MicroNews Editor
1995-1997	Secretary, Executive Council
1996-1997	National Tour Speaker
1998-2000	Director, Executive Council
2001	Program Co-Chair for Microscopy and Microanalysis 2001 (M&M 2001) August 5-9, Long Beach, CA
2001-2003	Secretary, Executive Council
2003-2006	President-Elect, President, Past-President
2009-2015	Chair, Education Committee
2014	Symposium Co-Chair for M&M 2014 August 3-7, Hartford, CT

American Chemical Society	1986 - present	Member
North American Membrane Society	1996 - present	Member
Experimental Biology and Medicine	2006-2015	Member of Editorial Board

Achievements in original investigation:

Books co-edited:

1. Proceedings, Microscopy and Microanalysis 2001
   G. W. Bailey, R. L. Price, E. Voelkl, I. H. Musselman, Eds.
   Springer-Verlag New York, Inc., 175 Fifth Avenue, Ney York, NY 10010, 1,296 pages, 2001

Articles appearing as chapters in edited volumes:

1. Laser and Ion Microprobe Mass Spectrometry - Applications to Human Tissues
   R. W. Linton, I. H. Musselman, S. R. Bryan
   Microprobe Analysis in Medicine, Peter Ingram, John D. Shelburne, Victor L. Roggli, Eds., Hemisphere Publishing Corporation, New York (1989) 303-333

2. Mixed-Matrix Membranes Based on Metal-Organic Frameworks
   J. P. Ferraris, I. H. Musselman, K. J. Balkus, Jr.
   Advanced Materials for Membrane Preparation, M.G. Buonomenna and G. Golemme, Eds., Bentham Science Publishers, ISBN: 978-1-60805-308-7, 2011

Articles in refereed journals:

1. "Characterization of Aircraft-Collected Particles Present in the Arctic Aerosol; Alaskan Arctic Spring 1983"
   P. J. Sheridan, I. H. Musselman
   Atmos. Environ. **19** (1985) 2159-2166

2. "The Use of Single Particle Standards for LAMMA Calibration"
   I. H. Musselman, D. S. Simons, J. A. Small, R. W. Linton
   J. Trace and Microprobe Techniques **4** (1986) 197-213

3. "Cluster Ion Formation Under Laser Bombardment. Studies of Recombination Using Isotope Labeling"
   Inga H. Musselman, Richard W. Linton, David S. Simons
   Anal. Chem. **60** (1988) 110-114

4. "Surface Characterization"
   J. E. Fulghum, G. E. McGuire, I. H. Musselman, R. J. Nemanich, J. M. White, D. R. Chopra, A. R. Chourasia
   Anal. Chem. **61** (1989) 243R-269R

5. "Fabrication of Tips with Controlled Geometry for Scanning Tunnelling Microscopy"
   I. H. Musselman, P. A. Peterson, P. E. Russell
   Precision Engineering **12** (1990) 3-6

6. "Platinum / Iridium Tips with Controlled Geometry for Scanning Tunneling Microscopy"
   Inga Holl Musselman, Phillip E. Russell
   J. Vac. Sci. Technol. A **8(4)** (1990) 3558-3562

7. "X-ray Photoelectron Spectroscopy Sputter Depth Profile Analysis of Spatially Controlled Microstructures in Conductive Polymer Films"
Susan G. MacKay, Mohammed Bakir, Inga H. Musselman, Thomas J. Meyer, Richard W. Linton
Anal. Chem. **63** (1991) 60-65

8. "Surface Characterization"
M. A. Ray, G. E. McGuire, I. H. Musselman, R. J. Nemanich, D. R. Chopra
Anal. Chem. **63** (1991) 99R-118R

9. "Molecular Speciation of Microparticles: Application of Pattern Recognition Techniques to Laser Microprobe Mass Spectrometric Data"
Chul-Un Ro, Inga H. Musselman, Richard W. Linton
Anal. Chim. Acta **243** (1991) 139-147

10. "Effects of Sample Geometry on Interelement Quantitation in Laser Microprobe Mass Spectrometry"
I. H. Musselman, D. S. Simons, R. W. Linton
Int. J. Mass Spectrom. Ion Proc. **112** (1992) 19-43

11. "Microfibrillar Structures in Liquid-Crystalline Polymers"
L. C. Sawyer, R. T. Chen, M. G. Jamieson, I. H. Musselman, P. E. Russell
J. Mat. Sci. Let. **11** (1992) 69-72

12. "Three-Dimensional Characterization of Conducting Polymer Arrays Using SIMS"
K. H. Gray, S. Gould, R. M. Leasure, I. H. Musselman, J. J. Lee, T. J. Meyer, R. W. Linton
J. Vac. Sci. Technol. A **10(4)** (1992) 2679-2684

13. "The Fibrillar Hierarchy in Liquid Crystalline Polymers"
L. C. Sawyer, R. T. Chen, M. G. Jamieson, I. H. Musselman, P. E. Russell
J. Mat. Sci. **28(1)** (1993) 225-238

14. "Scanning Probe Microscopy and Sputter Depth Profiling of Conductive Polymer Thin Films"
I. H. Musselman, K. H. Gray, R. M. Leasure, T. J. Meyer, R. W. Linton
Microbeam Analysis **2** (1993) 297-310

15. "Effects of Substrate on Ultra-Thin Films of Poly(γ-Benzyl-L-Glutamate) by Scanning Probe Microscopy"
I. H. Musselman, D. L. Smith, E. P. Enriquez, V. F. Guarisco, E. T. Samulski
J. Vac. Sci. Technol. A **12(4)** (1994) 2523-2529

16. "Quantification of XPS Images for Thickness Measurements"
Terry A. Zupp, Julia E. Fulghum, H. K. M. Vithana, Inga H. Musselman, David J. Surman
Microbeam Analysis **4** (1995) 215-220

17. "Controlled Bias Ramping for Scanning Tunneling Microscopy of Molecular Adsorbates"
J. S. Roach, J. Honeyman, I. H. Musselman
J. Vac. Sci. Technol. A **14(3)** (1996) 1205-1207

18. "Bias-Dependent STM Image Contrast Study of Phenyloctadecyl Ethers Physisorbed onto Highly Oriented Pyrolytic Graphite"
H. S. Lee, S. Iyengar, I. H. Musselman
Langmuir **14** (1998) 7475-7483
[This article was featured on the cover of the journal issue.]

19. "Poly(3-dodecylthiophene) Membranes for Gas Separations"
I. H. Musselman, L. Li, L. Washmon, D. Varadarajan, S. J. Riley, M. Hmyene, J. P. Ferraris, K. J. Balkus, Jr.
J. Membr. Sci. **152(1)** (1999) 1-18

20. "Gas Permeability Properties of Polysulfone Membranes Containing the Mesoporous Molecular Sieve MCM-41"
Brian D. Reid, F. Alberto Ruiz-Trevino, Inga H. Musselman, Kenneth J. Balkus, Jr., and John P. Ferraris
Chem. Mater. **13(7)** (2001) 2366-2373

21. "Identification of Halogen Atoms in STM Images of Substituted Phenyloctadecyl Ethers"
H. S. Lee, S. Iyengar, I. H. Musselman
Anal. Chem. **73(22)** (2001) 5532-5538

22. "Functional Group Contrast in Scanning Tunneling Microscopy Images of Substituted Phenylethers"
I. H. Musselman, K. H. Kangasniemi, A. J. M. Lubag, J. K. Franceschetti, H. S. Lee, and S. Iyengar
Microsc. Microanal. **7(Suppl 2)** (2001) 850-851

23. "Enhanced Gas selectivity in Thin Film Composite Membranes of Poly(3-(2-acetoxyethyl)thiophene)"
Brian D. Reid, Von Howard M. Ebron, Inga H. Musselman, John P. Ferraris and Kenneth J. Balkus, Jr.
J. Membr. Sci. **195(2)** (2002) 181-192

24. "Synthesis and STM Imaging of Substituted Phenylalkyl Ethers: Towards Functional Group Discrimination"
A. J. M. Lubag, Jr., K. Kangasniemi, and I. H. Musselman
Microsc. Microanal. **8(Suppl 2)** (2002) 766-767

25. "Controlled Assembly of Carbon Nanotubes by Designed Amphiphilic Peptide Helices"
G. R. Dieckmann, A. B. Dalton, P. A. Johnson, J. Razal, J. Chen, G. M. Giordano, E. Muñoz, I. H. Musselman, R. H. Baughman and R. K. Draper
J. Am. Chem. Soc. **125** (2003) 1770-1777

26. "STM Imaging of Photochromic Spiropyrans"
L. Zheng, M. C. Biewer, and I. H. Musselman
Microsc. Microanal. **9(Suppl 2)** (2003) 1234-1235

27. "Carbon Nanotubes Self-Assembled by Amphiphilic Peptide α-Helices"
I. H. Musselman, A. B. Dalton, A. Ortiz-Acevedo, J. Razal, J. Chen, E. Muñoz, R. H. Baughman, R. K. Draper, and G. R. Dieckmann
Microsc. Microanal. **9(Suppl 2)** (2003) 326-327

28. "Selective Matrimid Membranes Containing Mesoporous Molecular Sieves"
Kenneth J. Balkus Jr., Kyle Cattanach, Inga H. Musselman, John P. Ferraris
Materials Research Society Symposium Proceedings **752** (2003) 91-96

29. "Preparation and Characterization of Individual Peptide-Wrapped Single-Walled Carbon Nanotubes"
Vasiliki Zorbas, Alfonso Ortiz-Acevedo, Alan B. Dalton, Mario Miki Yoshida, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman, Miguel Jose-Yacaman, Inga H. Musselman
J. Am. Chem. Soc. **126** (2004) 7222-7227

30. "Hierarchical Self-Assembly of Peptide-Coated Carbon Nanotubes"
Alan B. Dalton, Alfonso Ortiz-Acevedo, Vasiliki Zorbas, William M. Sampson, Steve Collins, Joselito Razal, Mario Miki Yoshida, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman, Miguel Jose-Yacaman, Gregg R. Dieckmann
Adv. Funct. Mater. **14(12)** (2004) 1147-1151

31. "AFM Measurements of Long, Isolated Single-Walled Carbon Nanotubes Wrapped with Peptide"
V. Zorbas, A. Ortiz-Acevedo, A. B. Dalton, G. R. Dieckmann, R. K. Draper, R. H. Baughman, I. H. Musselman
Microsc. Microanal. **10(Suppl 2)** (2004) 138-139

32. "Methane Facilitated Transport Using Copper (II) Biphenyl Dicarboxylate-triethylenediamine Poly(3-acetoxyethylthiophene) Mixed Matrix Membranes"
Hadi Yehia, Thomas J. Pisklak, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
Polymer Preprints **45(1)** (2004) 35-36

33. "Peptide Cross-Linking Modulated Stability and Assembly of Peptide-Wrapped Single-Walled Carbon Nanotubes"
Hui Xie, Alfonso Ortiz-Acevedo, Vasiliki Zorbas, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman, Alan B. Dalton, Gregg R. Dieckmann
J. Matls. Chem. **15** (2005) 1734-1741

34. "Diameter-Selective Solubilization of Single-Walled Carbon Nanotubes by Reversible Cyclic Peptides"
Alfonso Ortiz-Acevedo, Hui Xie, Vasiliki Zorbas, William M. Sampson, Alan B. Dalton, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman, Gregg R. Dieckmann
J. Am. Chem. Soc. **127** (2005) 9512-9517

35. "Nanotube Network Transistors from Peptide-Wrapped Single-Walled Carbon Nanotubes"
Marc in Het Panhuis, Srinivas Gowrisanker, Douglas J. Vanesko, Charles A. Mire, Huiping Jia, Hui Xie, Ray H. Baughman, Inga H. Musselman, Gregg R. Dieckmann, Rockford K. Draper
Small **1** (2005) 820-823

36. "Importance of Aromatic Content for Peptide/Single-Walled Carbon Nanotube Interactions"
Vasiliki Zorbas, Amy L. Smith, Alfonso Ortiz-Acevedo, Hui Xie, Alan B. Dalton, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman, Inga H. Musselman
J. Am. Chem. Soc. **127** (2005) 12323-12328

37. "Importance of Aromatic Content for Peptide/Single-Walled Carbon Nanotube Interactions"
Vasiliki Zorbas, A. L. Smith, A. Ortiz-Acevedo, H. Xie, G. R. Dieckmann, R. K. Draper, R. H. Baughman, I. H. Musselman
Microsc. Microanal. **11(Suppl 2)** (2005) 1410-1411

38. "Atomic Force Microscopy Measurements of Peptide-Wrapped Single-Walled Carbon Nanotube Diameters"
Vasiliki Zorbas Poenitzsch, Inga H. Musselman
Microsc. Microanal. **12(3)** (2006) 221-227

39. "Scanning Tunneling Microscopy and Spectroscopy of Peptide-Wrapped Single-Walled Carbon Nanotubes"
I. H. Musselman, V. Z. Poenitzsch, G. R. Dieckmann
Microsc. Microanal. **12(Suppl 2)** (2006)

40. "Mixed Matrix Membranes Composed of Matrimid and Carbon Aerogel and Carbon Aerogel+Zeolite Composite Nanoparticles"
Yangeng Zhang, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
PMSE Preprints **95** (2006) 812-814

41. "Mixed-Matrix Membranes for Gas Separation Using Metal-Organic Frameworks"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
PMSE Preprints **95** (2006) 815-816

42. "Microscopic and Spectroscopic Study of Interactions Between Amphiphilic Peptides and Single-Walled Carbon Nanotubes"
I. H. Musselman, V. Z. Poenitzsch, H. Xie, A. B. Dalton, G. R. Dieckmann
Microsc. Microanal. **13(Suppl 2)** (2007) 1584-1585

43. "Amphiphilic Helical Peptide Enhances the Uptake of Single-Walled Carbon Nanotubes by Living Cells"
Shook-Fong Chin, Ray H. Baughman, Alan B. Dalton, Gregg R. Dieckmann, Rockford K. Draper, Carole Mikoryak, Inga H. Musselman, Vasiliki Z. Poenitzsch, Paul Pantano
Exp. Biol. Med. **232(9)** (2007) 1236-1244

44. "Single-Walled Carbon Nanotube Interactions with HeLa Cells"
Hadi N. Yehia, Rockford K. Draper, Carole Mikoryak, E. Kate Walker, Pooja Bajaj, Inga H. Musselman, Meredith C. Daigrepont, Gregg R. Dieckmann, Paul Pantano
J. Nanobiotechnol. **5:**8 (2007)

45. "Novel Polysilsesquioxane Hybrid Membranes for Proton Exchange Membrane Fuel Cell (PEMFC) Applications"
Grace Jones D. Kalaw, Zhiwei Yang, Inga H. Musselman, Duck-Joo Yang, Kenneth J. Balkus, Jr., John P. Ferraris
Preprints of Symposia – American Chemical Society, Division of Fuel Chemistry **52(2)** (2007) 260-262

46. "Novel Bronsted Acid-Base Complexes for Proton Exchange Membrane Fuel Cells"
Annie Chacko, Inga H. Musselman, D. J. Yang, Kenneth J. Balkus, Jr., John P. Ferraris
Preprints of Symposia – American Chemical Society, Division of Fuel Chemistry **52(2)** (2007) 390-391

47. "Effect of Electron-Donating and Electron-Withdrawing Groups on Peptide/Single-Walled Carbon Nanotube Interactions"
Vasiliki Z. Poenitzsch, David C. Winters, Hui Xie, Gregg R. Dieckmann, Alan B. Dalton, Inga H. Musselman
J. Am. Chem. Soc. **129(47)** (2007) 14724-14732

48. "Novel Polysilsesquioxane Hybrid Membranes for Proton Exchange Membrane Fuel Cell (PEMFC) Applications
Grace Jones D. Kalaw, Zhiwei Yang, Inga H. Musselman, Duck-Joo Yang, Kenneth J. Balkus, Jr., John P. Ferraris
Separ. Sci. Technol. **43(16)** (2008) 3981-4008

49. "Mixed-Matrix Membranes Composed of Matrimid and Mesoporous ZSM-5 Nanoparticles"
Yanfeng Zhang, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
J. Membr. Sci. **325(1)** (2008) 28-39

50. "Thermal Ablation of Tumor Cells with Antibody-Functionalized Single-Walled Carbon Nanotubes"
Pavrita Chakravarty, Radu Marches, Neil S. Zimmerman, Austin D.-E. Swafford, Pooja Bajaj, Inga H. Musselman, Paul Pantano, Rockford K. Draper, Ellen S. Vitetta
Proc. Nat. Acad. Sci. U.S.A. **105(25)** (2008) 8697-8702

51. "Novel Materials for Proton Exchange Membranes for Fuel Cells"
Grace Jones D. Kalaw, Inga H. Musselman, Duck-Joo Yang, Kenneth J. Balkus, Jr., John P. Ferraris,
Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry **53(1)** (2008) 513-515

52. "Correlative Microscopic and Spectroscopic Characterization of Carboxylated Single-Walled Carbon Nanotubes"
P. Bajaj, K. Artyushkova, I. Musselman
Microsc. Microanal. **14(Suppl 2)** (2008) 474-475

53. "Gas Permeability Properties of Matrimid Membranes Containing the Metal-Organic Framework Cu-BPY-HFS"
Yanfeng Zhang, Inga H. Musselman, John P. Ferraris, Kenneth J. Balkus, Jr.
J. Membr. Sci. **313(1+2)** (2008) 170-181

54. "Gas Permeability Properties of Mixed-Matrix Matrimid Membranes Containing a Carbon Aerogel: A Material with Both Micropores and Mesopores"
Yanfeng Zhang, Inga H. Musselman, John P. Ferraris, Kenneth J. Balkus, Jr.
Ind. Eng. Chem. Res. **47(8)** (2008) 2794-2802

55. "Specific Thermal Ablation of Tumor Cells Using Single-Walled Carbon Nanotubes Targeted by Covalently-Coupled Monoclonal Antibodies"
Radu Marches, Pavitra Chakravarty, Inga H. Musselman, Pooja Bajaj, Robert N. Azad, Paul Pantano, Rockford K. Draper, Ellen S. Vitetta
Int. J. Cancer **125(12)** (2009) 2970-2977

56. "Synthesis and Characterization of Perfluorocyclobutane (PFCB) Polymers Containing the Sulfonimide Acid Functionality for Applications in Proton Exchange Membranes"
Grace Jones D. Kalaw, Inga H. Musselman, Duck-Joo Yang, Kenneth J. Balkus, Jr., John P. Ferraris
Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry **54(2)** (2009) 435-436

57. "Coating of Carbon Nanotubes on Flexible Substrate and its Adhesion Study"
Abdelaziz Rahy, Pooja Bajaj, Inga H. Musselman, Soon Hyung Hong, Ya-Ping Sun, Duck J. Yang
Appl. Surf. Sci. **255(15)** (2009) 7084-7089

58. "Use of Closeable Cyclic Peptides and other Designed Biomolecules for the Noncovalent Functionalization of Carbon Nanotubes"
Gregg R. Dieckmann, Inga H. Musselman, Steven O. Nielsen, Eric J. Becraft, Anton Klimenko, Jane H. Nguyen
Polymer Preprints – American Chemical Society **50(1)** (2009)

59. "Mixed-Matrix Membranes Containing MOF-5 for Gas Separations"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
J. Membr. Sci. **328(1+2)** (2009) 165-173
Top 25 Hottest Articles, January – March, 2009

60. "Molecular Sieving Realized with ZIF-8/Matrimid Mixed-Matrix Membranes"
Ma. Josephine C. Ordoñez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
J. Membr. Sci. **361** (2010) 28-37
Top 25 Hottest Articles, July – September, 2010

61. "Incorporation of Hybrid Crystalline Microporous Materials in Mixed-Matrix Membranes for Gas Separation"
I. H. Musselman, E. V. Perez, M. J. C. Ordoñez, K. J. Balkus, Jr.; J. P. Ferraris
Microsc. Microanal. **16(Suppl. 2**) (2010) 1668-1669

62. "Effect of Surfactant Peptides on Electronic Properties of Single-walled Carbon Nanotubes"
D. R. Samarajeewa, G. R. Dieckmann, I. H. Musselman
Microsc. Microanal. **16(Suppl. 2)** (2010) 454-455

63. "Microscopy, Fluorescence, and Confocal Raman Imaging of Biotinylated Single-walled Carbon Nanotubes Bound to Breast Tumor Cells"
I. H. Musselman, P. Bajaj, C. Mikoryak, R. H. Wang, D. K. Bushdiecker, II, P. Memon, G. R. Dieckmann, R. K. Draper, P. Pantano
Microsc. Microanal. **16(Suppl. 2**) (2010) 394-395

64. "Cytotoxicity Screening of Single-Walled Carbon Nanotubes: Detection and Removal of Cytotoxic Contaminants from Carboxylated Carbon Nanotubes"
Ruhung Wang, Carole Mikoryak, Synyoung Li, David Bushdiecker, Inga H. Musselman, Paul Pantano, Rockford K. Draper
Molecular Pharmaceutics **8(4)** (2011) 1351-1361

65. "Transmission Electron Microscopy and Three-Dimensional Tomography of Peptide-Coated Single-Walled Carbon Nanotubes"
P. Bajaj, J. Nguyen, C. Gilpin, G.R. Dieckmann, C.C. Chiu, S.O. Nielsen, I. H. Musselman
Microsc. Microanal. **17(Suppl. 2)** (2011) 1008-1009

66. "ZIF-8 Asymmetric Mixed-Matrix Membranes for Gas Separation"
C. Ratanatawanate, John P. Ferraris, Inga H. Musselman, Kenneth J. Balkus, Jr.
Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry, **56(2)** (2011) 464-465

67. "Nafion-sulfonated Dendrimer Composite Membranes for Fuel Cell Applications"
A. Liyanage, J. P. Ferraris, I. H. Musselman, D.-J. Yang, T. E. Anderson, D. Y. Son, K. J. Balkus, Jr.
J. Membr. Sci. **392-393** (2012) 175-180

68. "Modifying the Electronic Properties of Single-walled Carbon Nanotubes Using Designed Surfactant Peptides"
D. R. Samarajeewa, G. R. Dieckmann, S. O. Nielsen, I. H. Musselman
Nanoscale **4(15)** (2012) 4544-4554

69. "Surfactant Peptide/SWNT Composites with Altered Electronic Properties"
D. R. Samarajeewa, G. R. Dieckmann, S. O. Nielsen, I. H. Musselman
Microsc. Microanal. **18(Suppl. S2)** (2012) 1546-1547

70. "Perfluorocyclobutyl (PBCB)-Based Polymer Blends for Proton Exchange Membrane Fuel Cells (PEMFCs)"
Grace Jones D. Kalaw, Judy Anne N. Wahome, Yuanqin Zhu, Kenneth J. Balkus, Jr., Inga H. Musselman, Duck-Joo Yang, John P. Ferraris
J. Membr. Sci. **431** (2013) 86-95

71. "Doping Single-Walled Carbon Nanotubes with Surfactant Peptides Containing Electron-Donor Substituents and Nitrogen Heterocycles"
Dinushi R. Samarajeewa, Gregg R. Dieckmann, Steven O. Nielsen, Inga H. Musselman
Carbon **57** (2013) 88-98

72. "Adsorption of Naphthalene and Pyrene Containing Surfactant Peptides onto Single-Walled Carbon Nanotubes: A Microscopy, Spectroscopy, and Theoretical Study"
Dinushi R. Samarajeewa, Udayana Ranatunga, Blake Wilson, Ariane Lemieux, Gregg Dieckmann, Steve Nielsen, Inga Musselman
Microsc. Microanal. **19(Suppl. S2)** (2013) 1560-1561

73. "Instrument for Gas Permeation Measurements at High Pressure and High Temperature"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
Rev. Sci. Instrum. **84(6)** (2013) 065107/1-065107/7

74. "Surface Cross-Linking of ZIF-8/Polyimide Mixed Matrix Membranes (MMMs) for Gas Separation"
Sumudu N. Wijenayake, Nimanka P. Panapitiya, Saskia H. Versteeg, Cindy N. Nguyen, Shristi Goel, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
Ind. Eng. Chem. Res. **52(21)** (2013) 6991-7001

75. "Stabilization of Immiscible Polymer Blends Using Structure Directing Metal Organic Frameworks (MOFs)
Nimanka P. Panapitiya, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
Preprints of Symposia - American Chemical Society, Division of Energy & Fuels **59(1)** (2014) 627

76. "Fabrication of Asymmetric ZIF-8/Polyimide Mixed Matrix Membranes for Gas Separations"
Sumudu N. Wijenayake, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
Preprints of Symposia - American Chemical Society, Division of Energy & Fuels **59(1)** (2014) 641

77. "Polymer-Coated Tubular Membrane Reactor for Water-Gas Shift Reaction and Gas Separation"
Yu Huang, Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
Preprints of Symposia - American Chemical Society, Division of Energy & Fuels **59(1)** (2014) 669

78. "Effect of Functionalization of Metal Organic Framework (MOF) and Metal Organic Polyhedra (MOP) Materials in Polyimides for Gas Separations at High Pressure and High Temperature"
Edson V. Perez, Grace D. Kalaw, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
Preprints of Symposia - American Chemical Society, Division of Energy & Fuels **59(1)** (2014) 671-672

79. "Stabilization of Immiscible Polymer Blends Using Structure Directing Metal Organic Frameworks (MOFs)"
Nimanka P. Panapitiya, Sumudu N. Wijenayake, Yu Huang, David Bushdiecker, Do Nguyen, Chalita Ratanawanate, Grace J. Kalaw, Christopher J. Gilpin, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
Polymer **55(8)** (2014) 2028-2034

80. "A Carbon Nanotube-Based Raman-Imaging Immunoassay for Evaluating Tumor Targeting Ligands"
Pooja Bajaj, Carole Mikoryak, Ruhung Wang, David K. Bushdiecker, Pauras Memon, Rockford K. Draper, Gregg R. Dieckmann, Paul Pantano, Inga H. Musselman
Analyst **139(12)** (2014) 3069-3076

81. "SEM, TEM, and AFM Analyses of Phase-Separated Polymer Blend Membranes for Gas Separations"
I. H. Musselman, N.P. Panapitiya, D.K. Bushdiecker II, M.P. Tomasek, C.K. Miller, C.J. Gilpin, K.J. Balkus, Jr., John P. Ferraris
Microsc. Microanal. **20(Suppl. 3**) (2014) 2064-2065

82. "Carbon Dioxide Sorption in Metal Organic Polyhedras at High Pressure and High Temperature"
Edson V. Perez, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
Preprints of Symposia - American Chemical Society, Division of Energy & Fuels **59(2)** (2014) 390-391

83. "Metal-Organic Polyhedra 18 Mixed-Matrix Membranes for Gas Separation"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
J. Membr. Sci. **463** (2014) 82-93

84. "MIL-53 Frameworks in Mixed-Matrix Membranes"
Josephine O. Hsieh, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
Micropor. Mesopor. Mat. **196** (2014) 165-174

85. "Composite Membranes with a Highly Selective Polymer Skin for Hydrogen Separation"
Sumudu N. Wijenayake, Nimanka P. Panapitiya, Cindy N. Nguyen, Yu Huang, Kenneth J. Balkus, Jr., John P. Ferraris
Sep. Purif. Technol. **135** (2014) 190-198

Other writings (not including abstracts):
Patents/patent applications

1. Method of Fabricating Scanning Tunneling Microscope Tips
Inga H. Musselman, Phillip E. Russell
U. S. Patent No. *5,085,746* (February 4, 1992)
Licensed by Materials Analytical Services, Norcross, GA, July 19, 1990

2. Scanning Tunneling Microscope Tips
Inga H. Musselman, Phillip E. Russell
U. S. Patent No. *5,164,595* (November 17, 1992)
Licensed by Materials Analytical Services, Norcross, GA, July 19, 1990

3. Chemically Synthesized Biologic Material for Controlling Nanofibers
Ray Baughman, Alan B. Dalton, Gregg Dieckmann, Rockford K. Draper, Inga Holl Musselman
U.S. Provisional Patent Application filed August 2003. Not converted to full patent application.

4. Diameter-Selective Reversible Closable Peptides
Gregg R. Dieckmann, Alfonso Ortiz-Acevedo, Ray H. Baughman, Alan B. Dalton, Rockford K. Draper, Inga H. Musselman,
U.S. Patent No. *8,198,403 B2* (June 12, 2012)

5. Sulfonated Perfluorocyclopentenyl Polymers and Uses Thereof
Dennis W. Smith, Jr., Daniel K. Dei, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman, Duck J. Yang, Grace Jones D. Kalaw, Babloo Sharma
U.S. Patent No. *20140162173 A1* (June 12, 2014)

Invited presentations to professional meetings and seminar or colloquia assemblies:

1. "Cluster Formations in the Laser Microprobe Mass Analyzer"
Staff Research Seminar, National Bureau of Standards, Gaithersburg, MD, November 7, 1986

2. “Effects of Sample Geometry on Interelement Quantitation in Laser Microprobe Mass Spectrometry”
   Microbeam Analysis Society 23rd Annual Conference, Milwaukee, WI, August 10, 1988

3. “Scanning Tunneling and Atomic Force Microscopies: Fundamentals and Applications”
   Department of Applied Sciences Seminar, University of North Carolina, Chapel Hill, NC, November 21, 1991

4. “Scanning Tunneling Microscopy and Atomic Force Microscopy of Polymers”
   Programs in Chemistry Seminar, University of Texas at Dallas, Richardson, TX, September 30, 1992

5. “Scanning Probe Microscopy of Polypeptide Thin Films”
   Department of Chemistry Seminar, Baylor University, Waco, TX, December 3, 1993

6. “Scanning Probe Microscopy of Polypeptide Thin Films”
   Department of Chemistry Seminar, Texas Christian University, Fort Worth, TX, February 22, 1994

7. “Scanning Probe Microscopy: Introduction and Application to Polypeptide Thin Films”
   Molecular and Cell Biology Seminar, University of Texas at Dallas, Richardson, TX, September 22, 1994

8. “Scanning Probe Microscopy of Polypeptide Thin Films”
   Department of Chemistry Seminar, University of North Texas, Denton, TX, November 11, 1994

9. “Industrial Applications of (Atomic Force) Microscopy: Gas Separation Membranes and Corrosion of Steel”
   United Technologies Research Center, East Hartford, CT, June 6, 1996

10. “Industrial Applications of (Atomic Force) Microscopy: Gas Separation Membranes and Corrosion of Steel”
    Solid State Physics Seminar, University of Texas at Dallas, Dallas, TX, July 30, 1996

11. “Scanning Probe Microscopy: Introduction and Industrial Applications”
    Joint Meeting of the Southern California Society for Microscopy and the Microbeam Analysis Society of Southern California, Pasadena, CA, November 20, 1996

12. “Scanning Probe Microscopy: Introduction and Industrial Applications”
    Department of Chemistry Seminar, Austin College, Sherman, TX, March 5, 1997

13. “Scanning Probe Microscopy: Theory, Instrumentation and Applications”
    Department of Chemistry Seminar, Southern Methodist University, Dallas, TX, September 10, 1997

14. "Atomic Force Microscopy and Related Techniques: Introduction, Instrumentation and Application to Polymeric Materials", Minnesota Microscopy Society, St. Paul, MN, November 20, 1997

15. "Atomic Force Microscopy and Related Techniques: Introduction, Instrumentation and Application to Polymeric Materials"
3M Technical Forum, St. Paul, MN, November 21, 1997

16. "Morphology of Poly(3-dodecylthiophene) Gas Separation Membranes"
215th American Chemical Society National Meeting, Dallas, TX, March 29 - April 2, 1998

17. "Atomic Force Microscopy and Related Techniques: Introduction, Instrumentation and Application to Polymeric Materials"
Microscopy and Microanalysis '98, Atlanta, GA, July 12 - 16, 1998

18. "Identification of Halogen Atoms in Scanning Tunneling Microscopy Images of Substituted Phenyloctadecyl Ethers"
Microscopy and Microanalysis '99, Portland, OR, August 2 - 5, 1999

19. "Identification of Halogen Atoms in Scanning Tunneling Microscopy Images of Substituted Phenyloctadecyl Ethers"
Department of Chemistry Seminar, Baylor University, Waco, TX, September 17, 1999

20. "Bias-dependent Contrast and Identification of Halogen Atoms in STM Images of Substituted Phenyloctadecyl Ethers"
Department of Chemistry Seminar, University of North Texas, Denton, TX, April 7, 2000

21. "The D.Chem. Program in the Next Millenium: The Evolution of a Radical Departure from Typical PhD Training"
American Chemical Society Biennial Conference on Chemical Education", University of Michigan, Ann Arbor, MI, July 31, 2000

22. "Scanning Tunneling Microscopy – Much More Than Beautiful Images: An Investigation of Image Contrast"
Department of Chemistry Seminar, University of Texas at Dallas, Richardson, TX, November 28, 2001

23. "Scanning Tunneling Microscopy – Much More Than Beautiful Images: An Investigation of Image Contrast"
Department of Chemistry Seminar, University of Texas at Arlington, Arlington, TX, March 7, 2002

24. "Isolation of Long, Individual Peptide-Wrapped Single-Walled Carbon Nanotubes"
Department of Chemistry Seminar, Oklahoma State University, Stillwater, OK, December 2, 2004

25. "Scanning Probe Microscopy of Peptide-Wrapped Single-Walled Carbon Nanotubes"
    9th European Workshop on Modern Developments and Applications in Microbeam Analysis and 3rd Meeting of the International Union of Microbeam Analysis Societies, Convitto della Calza, Florence, Italy, May 22 – 26, 2005

26. "Analyzing Single-Walled Carbon Nanotubes with Atomic Force and Scanning Tunneling Microscopies"
    NIST/MAS Particle Workshop, National Institute of Standards and Technology, Gaithersburg, MD, April 24, 2006

27. "Mixed-Matrix Membranes for CO_2 and H_2 Separations Using Metal-Organic Frameworks and Mesoporous Hybrid Silicas"
    U.S. Department of Energy/National Energy Technology Laboratory Contractors Review Conference, Pittsburgh, PA, June 7, 2006

28. "Peptide-Functionalized Carbon Nanotubes: Optimization and Interactions with Mammalian Cells"
    G. R. Dieckmann, A. B. Dalton, J. N. Coleman, R. H. Baughman, R. K. Draper, I. H. Musselman, P. Pantano, Sixth Human Frontier Science Program Awardees Annual Meeting Paris, France, July 3-5, 2006

29. "Atomic Force Microscopy and Scanning Tunneling Microscopy Studies of Peptide-Coated Single-Walled Carbon Nanotubes"
    nanoTX '06, Dallas, TX, September 28, 2006

30. "Research in the Bionanosciences Group at UTD: Biocompatibility and Intracellular Fate of Polypeptide-Coated Single-Walled Carbon Nanotubes"
    UT Metroplex Days, Nanomedicine Symposium, University of Texas at Dallas, December 11, 2006

31. "Mixed-Matrix Membranes for CO_2 and H_2 Separations Using Metal-Organic Frameworks and Mesoporous Hybrid Silicas"
    Edson V. Perez, Yanfeng Zhang, Ma. Josephine Ordonez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
    U.S. Department of Energy/National Energy Technology Laboratory UCR/HBCU Contractors Review Conference, Pittsburgh, PA, June 5, 2007

32. "Controlling the Properties of Carbon Nanotubes Through Noncovalent Functionalization with Designed Peptide Systems"
    Gregg R. Dieckmann, Eric J. Becraft, Ray H. Baughman, Alan B. Dalton, Rockford K. Draper, Inga H. Musselman, Paul Pantano
    Materials Research Society, Spring 2007 Meeting, Session: Functionalization, Charge Transfer and Redox of Nanotubes and Nanowires
    San Francisco, CA, April 10, 2007

33. "Microscopic and Spectroscopic Study of Interactions Between Amphiphilic Peptides and Single-Walled Carbon Nanotubes"
Inga Musselman
Department of Chemistry Seminar, Austin College, Sherman, TX, October 10, 2007

34. "Convergence of Nanotechnology and Medicine"
Inga H. Musselman
Institute for Innovation and Entrepreneurship (IIE) Showcase on Nanomedicine
The University of Texas at Dallas, Richardson, TX, January 22, 2010

35. "Novel Zeolitic Imidazolate Framework/Polymer Membranes for Hydrogen Separations in Coal Processing," DE-NT0007636
Inga H. Musselman, John P. Ferraris, Kenneth J. Balkus, Jr.
U.S. Department of Energy/National Energy Technology Laboratory UCR/HBCU Contractors Review Conference, Pittsburgh, PA, June 2-3, 2010

36. "Integrated Water Gas Shift Reactors Utilizing Novel, Non-Precious Metal Mixed-Matrix Membranes," DE-FE0001293
John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
FY11 Advanced Fuels Peer Review
U.S. Department of Energy, Office of Fossil Energy, National Energy Technology Laboratory, Morgantown, WV, October 18-22, 2010

37. "Novel Zeolitic Imidazolate Framework/Polymer Membranes for Hydrogen Separations in Coal Processing," DE-NT0007636
Inga H. Musselman, John P. Ferraris, Kenneth J. Balkus, Jr. (Talk)
U.S. Department of Energy/National Energy Technology Laboratory UCR/HBCU Contractors Review Conference
Pittsburgh, PA, June 7-8, 2011

38. "Novel Zeolitic Imidazolate Framework/Polymer Membranes for Hydrogen Separations in Coal Processing," DE-NT0007636
Inga H. Musselman, John P. Ferraris, Kenneth J. Balkus, Jr. (Talk)
U.S. Department of Energy/National Energy Technology Laboratory UCR/HBCU Contractors Review Conference
Pittsburgh, PA, May 30-31, 2012

39. "Polymeric-based Membrane Microstructure: Past, Present, and Future"
PLENARY SPEAKER
Inga H. Musselman
North American Membrane Society, NAMS 2012
New Orleans, LA, June 9-13, 2012

40. “Polymeric-based Membrane Microstructure: Past, Present, and Future”
Inga Musselman
Department of Chemistry Seminar, University of North Texas, Denton, TX, September 27, 2013

Contributed abstracts, posters, and/or oral presentations at professional meetings:

1. “Evaluation of Laser Microprobe Mass Analysis (LAMMA) for Nickel Speciation in Individual Micron-Sized Particles”
I. H. Musselman, R. W. Linton, D. S. Simons
EPA Sponsored Fifth Annual Symposium on Recent Advances in the Measurement of Air Pollutants
Raleigh, NC, May 16, 1985

2. “The Use of Laser Microprobe Mass Analysis for Nickel Speciation in Individual Particles of Micrometer Size”
I. H. Musselman, R. W. Linton, D. S. Simons
Microbeam Analysis Society 20th Annual Conference; Microbeam Analysis - 1985, J.T. Armstrong, Ed., San Francisco Press, San Francisco, 1985, pp. 337-341
Louisville, KY, August 5-9, 1985
3. “Ion Formation in Nickel Sulfide Under Laser Bombardment”
I. H. Musselman, R. W. Linton, D. S. Simons
The Pittsburgh Conference and Exposition on Analytical Chemistry and Applied Spectroscopy
Atlantic City, NJ, March 13, 1987

4. “Correlation of Microprobe Analysis Data for Individual Particle Speciation - Nickel Compounds From Stationary Sources”
J. T. Rickman, I. H. Musselman, J. O. Mullis, R. W. Linton
EPA/APCA Symposium on the Measurement of Toxic and Air Pollutants
Raleigh, NC, May 1987

5. “Inorganic Cluster Ion Formation in the Laser Microprobe”
R. W. Linton, I. H. Musselman, Frank Bruynseels, D. S. Simons
Microbeam Analysis Society 22nd Annual Conference; Microbeam Analysis - 1987, Roy H. Geiss, Ed., San Francisco Press, San Francisco, 1987, pp. 365-368
Kona, HI, July 13-17, 1987

6. “Fingerprinting of Chemical Species in Microparticles - Correlative Laser and Electron Microprobe Studies”
I. H. Musselman, J. T. Rickman, R. W. Linton
Microbeam Analysis Society 22nd Annual Conference; Microbeam Analysis - 1987, Roy H. Geiss, Ed., San Francisco Press, San Francisco, 1987, pp. 361-364
Kona, HI, July 13-17, 1987

7. “Correlative Ion, Laser and Electron Microprobe Analysis of Microparticulate Materials”
R. W. Linton, I. H. Musselman, J. T. Rickman, J. O. Mullis, J. L. Hunter, S. F. Corcoran, D. P. Griffis
Sixth International Conference on Secondary Ion Mass Spectrometry (SIMS VI); Proceedings, A. Benninghoven, A.M. Huber, and H. W. Werner, Eds., John Wiley and Sons, Chichester, Great Britain, 1988, pp. 569-572
Versailles, France, Fall 1987

8. “Effects of Sample Geometry on Interelement Quantitation in Laser Microprobe Mass Spectrometry”
I. H. Musselman, D. S. Simons, R. W. Linton
Electron Microscopy Society of America 46th Annual Meeting, Microbeam Analysis Society 23rd Annual Meeting; Microbeam Analysis - 1988, D. E. Newbury, Ed., San Francisco Press, San Francisco, 1988, pp. 356-364
Milwaukee, WI. August 8-12, 1988

9. “Preparation and Surface Analysis of Tungsten Tips for Scanning Tunneling Microscopy”
I. H. Musselman, P. E. Russell
Second Annual Symposium Organized by the North Carolina Section of the American Chemical Society on Chemistry at Surfaces and Interfaces
Duke University, Durham, NC, September 9, 1988

10. “Preparation and Surface Analysis of Tungsten Tips for Scanning Tunneling Microscopy”
I. H. Musselman, P. E. Russell
Seventh Annual Symposium on Advances in Microscopy Sponsored by Duke University Medical Center and the North Carolina Society for Electron Microscopy and Microbeam Analysis
Pine Knoll Shores, NC, September 23-25, 1988

11. “Molecular Speciation of Microparticles: Application of Pattern Recognition Techniques to Laser Microprobe Mass Spectrometry Data”
Chul-Un Ro, I. H. Musselman, R. W. Linton
Microbeam Analysis Society 24th Annual Conference; Microbeam Analysis - 1989, P. E. Russell, Ed., San Francisco Press, San Francisco, 1989, pp. 293-296
Asheville, NC, July 16-21, 1989

12. “Platinum Thin-Film Roughness Measurements by Scanning Tunneling Microscopy”
Inga H. Musselman, P. E. Russell
Microbeam Analysis Society 24th Annual Conference; Microbeam Analysis - 1989, P. E. Russell, Ed., San Francisco Press, San Francisco, 1989, pp. 535-539
Asheville, NC, July 16-21, 1989

13. “Scanning Tunneling Microscopy of Polymers: A Status Report”
    P. E. Russell, I. H. Musselman
    Electron Microscopy Society of America 47th Annual Meeting; Proceedings, G. W. Bailey, Ed., San Francisco Press, San Francisco, 1989, pp. 330-331
    San Antonio, TX, August 6-11, 1989

14. “Roughness Measurements of Nonlinear Optical Polymers by Scanning Tunneling Microscopy”
    I. H. Musselman, R.-T. Chen, P. E. Russell
    Electron Microscopy Society of America 47th Annual Meeting; Proceedings, G. W. Bailey, Ed., San Francisco Press, San Francisco, 1989, pp. 22-23
    San Antonio, TX, August 6-11, 1989

15. “Fabrication of Tips with Controlled Geometry for Scanning Tunneling Microscopy”
    I. H. Musselman, P. A. Peterson, P. E. Russell
    Fifth International Precision Engineering Seminar, American Society of Precision Engineering Annual Meeting
    Monterey, CA, September 18-22, 1989

16. “Controlled Geometry Tips for Scanning Tunneling Microscopy”
    Inga Holl Musselman and Phillip E. Russell
    American Vacuum Society, 36th National Symposium
    Boston, MA, October 23-27, 1989

17. “Correlative STM, FESEM, and TEM Studies of Fibrillar Structures in Liquid Crystalline Polymers”
    I. H. Musselman, P. E. Russell, R. T. Chen, M. G. Jamieson, L. C. Sawyer
    XIIth International Congress for Electron Microscopy, Electron Microscopy Society of America 48th Annual Meeting, Microbeam Analysis Society 25th Annual Meeting; Proceedings, L. D. Peachey and D. B. Williams, Eds., San Francisco Press, San Francisco, 1990, pp. 866-867
    Seattle, WA, August 12-18, 1990

18. “Correlative STM, FESEM, and TEM Studies of Fibrillar Structures in Liquid Crystalline Polymers”
    I. H. Musselman, P. E. Russell, R. T. Chen, M. G. Jamieson, L. C. Sawyer
    Ninth Annual Symposium on Advances in Microscopy Sponsored by Duke University Medical Center and the North Carolina Society for Electron Microscopy and Microbeam Analysis
    Pine Knoll Shores, NC, September 21-23, 1990

19. "Scanning Tunneling Microscopy and Atomic Force Microscopy of Fibrillar Structures in Liquid Crystalline Polymers"
I. H. Musselman and P. E. Russell, Electron Microscopy Society of America 49th Annual Meeting, Microbeam Analysis Society 26th Annual Meeting; Microbeam Analysis - 1991, David G. Howitt, Ed., San Francisco Press, San Francisco, 1991, pp. 377-381
San Jose, CA, August 4-9, 1991

20. "Structural Characterization of Conducting Polymer Thin Films Using Scanned Probe Microscopies"
I. H. Musselman, K. H. Gray, R. M. Leasure, T. J. Meyer, R. W. Linton
Electron Microscopy Society of America 50th Annual Meeting, Microbeam Analysis Society 27th Annual Meeting, Microscopical Society of Canada 19th Annual Meeting; Proceedings, G. W. Bailey, J. Bentley, and J. A. Small, Eds., San Francisco Press, San Francisco, 1992, pp. 1136-1137
Boston, MA, August 16-21, 1992

21. "Characterization of Self-Assembled Polypeptides on Gold Using Surface Analytical Techniques"
K. H. Gray, E. P. Enriquez, V. F. Guarisco, I. H. Musselman, E. T. Samulski, R. W. Linton
American Vacuum Society 39th National Symposium
Chicago, IL, November 9-13, 1992

22. "Scanning Probe Microscopy of Polymer Fibers and Thin Films"
Inga Holl Musselman
4th Texas Polymer Workshop
Festival Hill at Round Top, TX, April 22-23, 1993

23. "Effects of Substrate on Ultra-Thin Films of Poly(γ-Benzyl-L-Glutamate) by Scanning Probe Microscopy"
I. H. Musselman, D. L. Smith, E. P. Enriquez, V. F. Guarisco, E. T. Samulski
American Vacuum Society 40th National Symposium
Orlando, FL, November 15-19, 1993

24. "Atomic Force Microscopy of Langmuir-Blodgett Films of Poly(γ-Benzyl-L-Glutamate)"
D. L. Smith, I. H. Musselman, E. P. Enriquez, V. F. Guarisco, E. T. Samulski
13th Annual Texas Chapter Symposium (AVS, ES, MRS) - Electronic Materials, Processing, and Characterization - and Equipment Exhibition
Richardson, TX, June 6-7, 1994

25. "Effects of Deposition Parameters on Morphology of Langmuir-Blodgett Films of Poly(γ-Benzyl-L-Glutamate) by Scanning Probe Microscopy"
D. L. Smith, I. H. Musselman, E. P. Enriquez, V. F. Guarisco, E. T. Samulski
Microbeam Analysis, Proceedings of the 28th Annual MAS Meeting, John Friel, Editor, VCH Publishers, Inc., New York, NY, 1994, pp. 403-404
New Orleans, LA, July 31 - August 5, 1994

26. “Controlled Bias Ramping for Scanning Tunneling Microscopy of Molecular Adsorbates”
J. S. Roach, J. Honeyman, I. H. Musselman
Microbeam Analysis - 1995, Proceedings of the 29th Annual Conference of the Microbeam Analysis Society, Edgar S. Etz, Editor, VCH Publishers, Inc., New York, NY, 1995, pp. 79-80
Breckenridge, CO, August 6 - 11, 1995

27. “Controlled Bias Ramping for Scanning Tunneling Microscopy of Molecular Adsorbates”
J. S. Roach, J. Honeyman, I. H. Musselman
American Vacuum Society 42nd National Symposium
Minneapolis, MN, October 16-20, 1995

28. “Poly(3-alkylthiophene) Membranes for Gas Separation”
I. H. Musselman, L. Washmon, D. Varadarajan, B. J. Tielsch, J. E. Fulghum
Proceedings of Microscopy and Microanalysis, 1996, G. W. Bailey, J. M. Corbett, R. V. W. Dimlich, J. R. Michael, N. J. Zaluzec, Eds., San Francisco Press, San Francisco, 1996, pp. 862-863
Minneapolis, MN, August 11-15, 1996

29. “Poly(3-alkylthiophene) Membranes for Gas Separation”
I. Musselman, L. Washmon, D. Varadarajan, B. Tielsch, J. Fulghum
212th American Chemical Society National Meeting
Orlando, FL, August 25-29, 1996

30. “Structure-Property Relationships in Poly(3-alkylthiophene) Membranes for Gas Separations”
L. Li, I. H. Musselman, J. P. Ferraris, K. J. Balkus, L. Washmon, J. DeRouchey, S. J. Riley
52nd American Chemical Society Southwest Regional Meeting
Houston, TX, October 17-19, 1996

31. “Poly(3-alkylthiophene) Membranes for Gas Separations”
I. H. Musselman, L. Li, L. Washmon, S. J. Riley, J. P. Ferraris, K. J. Balkus, Jr.
NAMS ‘97, North American Membrane Society Seventh Annual Meeting
Baltimore, MD, May 31-June 4, 1997

32. “Poly-(3-alkylthiophene) / Molecular Sieve Composite Membranes for Gas Separations”
D. Smithhisler, K. Balkus, Jr., J. Ferraris, I. Musselman, S. Riley, NAMS ‘97, North American Membrane Society Seventh Annual Meeting
Baltimore, MD, May 31-June 4, 1997

33. “Contrast in Scanning Tunneling Microscopy Images of Phenyloctadecylethers”
Haeseong Lee, Suman Iyengar, Inga H. Musselman
215th American Chemical Society National Meeting
Dallas, TX, March 29 - April 2, 1998

34. "Effect of Acquisition Conditions on Atomic Force Microscopy Images of Alzheimer's Disease Paired Helical Filaments"
    B. D. Reid, I. H. Musselman
    215th American Chemical Society National Meeting
    Dallas, TX, March 29 - April 2, 1998

35. "Bias-dependent Contrast in STM Images of Phenyloctadecylethers"
    I. H. Musselman, H. S. Lee, S. Iyengar
    American Vacuum Society 45th International Symposium
    Baltimore, MD, November 2-6, 1998

36. "Identification of Halogen Atoms in STM Images of Substituted Phenyloctadecylethers"
    H. S. Lee, S. Iyengar, I. H. Musselman
    American Vacuum Society 45th International Symposium
    Baltimore, MD, November 2-6, 1998

37. "Scanning Tunneling Microscopy Study of Para-substituted Phenyloctadecyl Ethers"
    C. Karen Fortune, Haeseong S. Lee, Suman Iyengar, Inga Holl Musselman
    American Chemical Society Meeting in Miniature
    Richardson, TX, April 16, 1999

38. "Composite Membranes for Gas Separations"
    Sudha Madhugiri, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
    American Chemical Society Meeting in Miniature
    Richardson, TX, April 16, 1999

39. "Gas Permselectivity of the Conductive Polymer MEH-PPV"
    Brian Reid, Jody Neef, Inga Musselman, John Ferraris, Kenneth Balkus, Jr.
    American Chemical Society Meeting in Miniature
    Richardson, TX, April 16, 1999

40. "Poly 2-(3-thienyl)ethylacetate Membranes for Gas Separation"
    V. H. M. Ebron, I. H. Musselman, J. P. Ferraris, K. J. Balkus, Jr., F. A. Ruiz-Treviño
    American Chemical Society Meeting in Miniature
    Richardson, TX, April 16, 1999

41. "STM Image Contrast Study of Phenyloctadecyl Ethers"
    H. S. Lee, S. Iyengar, I. H. Musselman
    The 10th International Conference on Scanning Tunneling Microscopy / Spectroscopy and Related Techniques
    Seoul, Korea, July 18 – July 23, 1999

42. "Gas Permeability Properties of Polysulfone Membranes Containing the Mesoporous Molecular Sieve, MCM-41"
Brian D. Reid, F. Alberto Ruiz-Trevino, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
American Chemical Society Meeting in Miniature, University of North Texas
Denton, TX, April 15, 2000

43. "A Systematic Study of Monolayer Formation with Scanning Tunneling Microscopy"
Laura Lewis, Inga H. Musselman
American Chemical Society Meeting in Miniature, University of North Texas
Denton, TX, April 15, 2000

44. "Gas Permeability Properties of Polysulfone Membranes Containing the Mesoporous Molecular Sieve, MCM-41"
Brian Reid, Alberto Ruiz-Trevino, Inga Musselman, Kenneth Balkus, Jr., John Ferraris
10th Annual Conference of the North American Membrane Society (NAMS 2000)
Boulder, CO, May 23 - 27, 2000
2nd Place in Student Competition, Gas Separations Division

45. "Enhanced Selectivity in Thin Film Composite Membranes of Poly(3-(2-acetoxyethyl)thiophene"
Brian Reid, Von Ebron, Inga Musselman, John Ferraris, Kenneth Balkus, Jr.
10th Annual Conference of the North American Membrane Society (NAMS 2000)
Boulder, CO, May 23 - 27, 2000

46. "Poly(3-octylthiophene)/NaY Zeolite Composite Membranes for Gas Separations"
Inga H. Musselman, Sudha Madhugiri, Kenneth Balkus, Jr., John P. Ferraris
10th Annual Conference of the North American Membrane Society (NAMS 2000)
Boulder, CO, May 23 - 27, 2000

47. Angelo Lubag, Inga Musselman
American Chemical Society Meeting in Miniature, Tarleton State University
Stephenville, TX, April 2001

48. Kim Kangasniemi, Inga Musselman
American Chemical Society Meeting in Miniature, Tarleton State University
Stephenville, TX, April 2001

49. "Gas Permeability Properties of Matrimid Membranes Containing the Mesoporous Molecular Sieve, MCM-41"
Kyle Cattanach, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
12th Annual Conference of the North American Membrane Society (NAMS 2001)
Lexington, KY, May 15 - 20, 2001

50. "Functional Group Contrast in STM Images of Substituted Phenylethers"
I.H. Musselman, H.S. Lee, S. Iyengar, K.H. Kangasniemi, A.J.M. Lubag, J.K. Franceschetti,
The 11th International Conference on Scanning Tunneling Microscopy / Spectroscopy and Related Techniques
Vancouver, British Columbia, Canada, July 15 - 20, 2001

51. "Functional Group Contrast in Scanning Tunneling Microscopy Images of Substituted Phenylethers"
I. H. Musselman, K. H. Kangasniemi, A. J. M. Lubag, J. K. Franceschetti, H. S. Lee, S. Iyengar
Microscopy and Microanalysis '01
Long Beach, CA, August 5 - 9, 2001

52. "Gas Permeability Properties of Matrimid® Membranes Containing the Mesoporous Molecular Sieve Amine DAM-1"
Kyle Cattanach, Inga Musselman
American Chemical Society Meeting in Miniature, University of Dallas
Irving, TX, April 2002

53. "Gas Permeability Properties of Composite Matrimid® Membranes"
K. Cattanach, I. H. Musselman, K. J. Balkus, Jr., John P. Ferraris
12th Annual Conference of the North American Membrane Society (NAMS 2002)
Long Beach, CA, May 11 - 15, 2002
3rd Place in Student Competition, Gas Separations Division

54. "Synthesis and STM Imaging of Substituted Phenylalkyl Ethers: Towards Functional Group Discrimination"
A. J. M. Lubag, Jr., K. Kangasniemi, and I. H. Musselman
Microscopy and Microanalysis '02
Québec City, Quebec, Canada, August 5 - 8, 2002
Received Castaing Award from Microbeam Analysis Society for Best Student Paper

55. "Controlled Assembly of Carbon Nanotubes in Aqueous Solution with Designed Peptides"
Gregg R. Dieckmann, A. Dalton, P. A. Johnson, J. Razel, J. Chen, G. M. Giordano, E. Muñoz, I. H. Musselman, R. H. Baughman, R. K. Draper
Biophysical Society 47th Annual Meeting
San Antonio, TX, March 1-5, 2003

56. "Controlled Assembly of Carbon Nanotubes in Aqueous Solution with Designed Peptides"
Gregg R. Dieckmann, Alfonso Ortiz-Acevedo, Alan B. Dalton, Joselito Razal, Jian Chen, Edgar Muñoz, Inga H. Musselman, Ray H. Baughman, Rockford K. Draper
American Peptide Society 2003
Boston, MA, July 19-23, 2003

57. "STM Imaging of Photochromic Spiropyrans"
L. Zheng, M. C. Biewer, and I. H. Musselman
Microscopy and Microanalysis '03
San Antonio, TX, August 4 - 7, 2003

58. "Carbon Nanotubes Self-Assembled by Amphiphilic Peptide α-Helices"
I. H. Musselman, A. B. Dalton, A. Ortiz-Acevedo, J. Razal, J. Chen, E. Muñoz, R. H. Baughman, R. K. Draper, and G. R. Dieckmann
Microscopy and Microanalysis '03
San Antonio, TX, August 4 – 7, 2003

59. "Atomic Force Microscopy Analysis of Long, Individual Peptide-Wrapped Single-Walled Carbon Nanotubes"
Vasiliki Zorbas, Alfonso Ortiz-Acevedo, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman, Inga Holl Musselman
Strategic Partnership for Research in Nanotechnology (SPRING), First Annual Conference
Austin, TX, August 22-24, 2003

60. "Effect of Aromatic Content on Peptide/Carbon Nanotube Composite Properties"
Alfonso Ortiz-Acevedo, Vasiliki Zorbas, Alan B. Dalton, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman, Gregg R. Dieckmann
Strategic Partnership for Research in Nanotechnology (SPRING), First Annual Conference
Austin, TX, August 22-24, 2003

61. "Isolation of Long, Individual Peptide-Wrapped Single-Walled Carbon Nanotubes" Inga H. Musselman, Vasiliki Zorbas, Alfonso Ortiz, Alan B. Dalton, Ray H. Baughman, Gregg R. Dieckmann, Rockford K. Draper, Miguel Jose-Yacaman
227th ACS National Meeting
Anaheim, CA, March 28-April 1, 2004

62. "Noncovalent Functionalization of Carbon Nanotubes with Designed Amphiphilic Peptides"
Gregg R. Dieckmann, Alfonso Ortiz-Acevedo, Alan B. Dalton,Vasiliki Zorbas, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman
227th ACS National Meeting
Anaheim, CA, March 28-April 1, 2004

63. "Use of Designed Amphiphilic Peptides for the Solubilization, Separation and Self-Assembly of Carbon Nanotubes"
Alfonso Ortiz-Acevedo, Alan B. Dalton, Vasiliki Zorbas, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman, Gregg R. Dieckmann
227th ACS National Meeting
Anaheim, CA, March 28-April 1, 2004

64. "Atomic Force Microscopy Measurements of Long, Isolated, Single-Walled Carbon Nanotubes Wrapped With Peptide"
Vasiliki Zorbas, Alfonso Ortiz, Alan B. Dalton, Ray H. Baughman, Gregg R. Dieckmann, Rockford K. Draper, Miguel Jose-Yacaman, Inga H. Musselman
227th ACS National Meeting
Anaheim, CA, March 28-April 1, 2004

65. "Methane Facilitated Transport Using Copper(II) Biphenyl Dicarboxylate-triethylenediamine/poly(3-acetoxyethylthiophene) Mixed Matrix Membranes"
Hadi Yehia, Thomas J. Pisklak, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
227th ACS National Meeting
Anaheim, CA, March 28-April 1, 2004

66. "Methane Facilitated Transport Using Mixed-Matrix Membranes Containing Metal-Organic Frameworks"
Hadi Yehia, Thomas J. Pisklak, John P. Ferraris, Kenneth J. Balkus, Jr., Inga Holl Musselman
14th Annual Conference of the North American Membrane Society (NAMS 2004)
Honolulu, HI, June 26 - 30, 2004

67. "AFM Measurements of Long, Isolated Single-Walled Carbon Nanotubes Wrapped with Peptide"
V. Zorbas, A. Ortiz-Acevedo, A. B. Dalton, G. R. Dieckmann, R. K. Draper, R. H. Baughman, I. H. Musselman
Microscopy and Microanalysis '04
Savannah, GA, August 1 – 5, 2004

68. "Synthesis and STM Imaging of CN-OTSP"
Elfrida Ginting, Michael C. Biewer, Inga H. Musselman
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

69. "STM Imaging of Photochromic Spiropyrans with Halogen Groups"
Zhongsheng Deng, Leiliang Zheng, Michael C. Biewer, Inga H. Musselman
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

70. "STM Imaging of Halogenated Single-Walled Carbon Nanotubes"
Zhongsheng Deng, Winshun Lai, Inga H. Musselman
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

71. "Micro IR Study of Peptide-Nanotube Membranes"
Tiffany Lin, Mikhail Kozlov, Alfonso Ortiz, Gregg Dieckmann, Inga Musselman, Rockford Draper
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

72. "Methane Facilitated Transport Using Mixed-Matrix Membranes Containing Metal-Organic Frameworks"
Carlos Barcena, Hadi N. Yehia, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

73. "Cyclic Polyacetylenes: a New Route for the Synthesis of Carbon Nanotubes of One Type"
Lana Z. Alagha, Michael C. Biewer, Ray H. Baughman, Jaideep Lamba, William Sampson, Alan Dalton, Vasiliki Zorbas, Inga Musselman
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

74. "Atomic Force Microscopy Study of the Effects of Peptide Length in Dispersing Single-Walled Carbon Nanotubes"
Amy L. Smith, Vasiliki Zorbas, Alfonso Ortiz-Acevedo, Hui Xie, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman, Inga H. Musselman
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

75. "Atomic Force Microscopy of Single-Walled Carbon Nanotubes Wrapped with Amphiphilic Peptide Helices"
Vasiliki Zorbas, Alfonso Ortiz-Acevedo, Alan B. Dalton, Mario Miki Yoshida, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman, Miguel Jose Yacaman, Inga H. Musselman
60th Southwest Regional Meeting of the American Chemical Society
Fort Worth, TX, September 29-October 4, 2004

76. "Optimization of Amphiphilic Peptides for Interactions with Single-Walled Carbon Nanotubes"
Vasiliki Zorbas, Alfonso Ortiz-Acevedo, Hui Xie, Alan B. Dalton, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman, Inga H. Musselman
Strategic Partnership for Research in Nanotechnology (SPRING), Second Annual Conference
Richardson, TX, November 11-12, 2004

77. "Atomic Force Microscopy Study of the Role of Peptide Length in Dispersing Single-Walled Carbon Nanotubes"
Amy L. Smith, Vasiliki Zorbas, Alfonso Ortiz-Acevedo, Alan B. Dalton, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman, Inga H. Musselman
Strategic Partnership for Research in Nanotechnology (SPRING) Second Annual Conference
Richardson, TX, November 11-12, 2004

78. "STM Imaging of Single-Walled Carbon Nanotubes With Halogen groups"
Zhongsheng Deng, Winshun Lai, Inga H. Musselman
Strategic Partnership for Research in Nanotechnology (SPRING), Second Annual Conference
Richardson, TX, November 11-12, 2004

79. "STM Imaging of Photochromic Spiropyrans With Halogen Groups"
Zhongsheng Deng, Leiliang Zheng, Michael C. Biewer, Inga H. Musselman
Strategic Partnership for Research in Nanotechnology (SPRING), Second Annual Conference
Richardson, TX, November 11-12, 2004

80. "Methane Facilitated Transport Using Mixed-Matrix Membranes Containing Metal-Organic Frameworks"
Carlos Barcena, Hadi Yehia, Thomas J. Pisklak, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
Strategic Partnership for Research in Nanotechnology (SPRING), Second Annual Conference
Richardson, TX, November 11-12, 2004

81. "Monitoring Reactive Oxygen Species Dynamics from Human Epithelial-Like Cells Exposed to Single-Walled Carbon Nanotubes"
Shook-Fong Chin, Amy L. Smith, Ray H. Baughman, Gregg R. Dieckmann, Rockford K. Draper, Inga H. Musselman, Paul Pantano
229th ACS National Meeting
San Diego, CA, March 13-17, 2005

82. "Novel Mixed-Matrix Membranes Based on Mesoporous Molecular Sieves and Hybrid Frameworks"
Kenneth R. Balkus, Jr., Yanfeng Zhang, Inga H. Musselman, John P. Ferraris
15th Annual Conference of the North American Membrane Society (NAMS 2005)
Providence, RI, June 11 - 15, 2005

83. "Gas Permeability Properties of Matrimid Membranes Containing Material with Both Micropores and Mesopores"
Yanfeng Zhang, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
15th Annual Conference of the North American Membrane Society (NAMS 2005)
Providence, RI, June 11 - 15, 2005

84. "Importance of Aromatic Content for Peptide/Single-Walled Carbon Nanotube Interactions"
V. Zorbas, A. L. Smith, A. Ortiz-Acevedo, H. Xie, G. R. Dieckmann, R. K. Draper, R. H. Baughman, I. H. Musselman
Microscopy and Microanalysis '05
Honolulu, HI, July 31 – August 4, 2005

85. "Investigating the Oxidative Stress Response of HeLa Cells Exposed to SWCNTs"
Hadi Yehia, Ray H. Baughman, Gregg R. Dieckmann, Rockford K. Draper, Inga H. Musselman, Paul Pantano
231st ACS National Meeting
Atlanta, GA, March 2006

86. "Scanning Tunneling Microscopy and Spectroscopy of Peptide-Wrapped Single-Walled Carbon Nanotubes"
V. Z. Poenitzsch, G. R. Dieckmann, I. H. Musselman
DFW ACS Meeting-in-Miniature, Texas Woman's University
Denton, TX, April 29, 2006

87. "Mixed-Matrix Membranes for H2 Separation Using Metal-Organic Frameworks"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
16th Annual Conference of the North American Membrane Society (NAMS 2006)
Chicago, IL, May 12-17, 2006

88. "Mixed Matrix Membranes Composed of Matrimid and Carbon Aerogel-Zeolite Composite Nanoparticles"
Yanfeng Zhang, Kenneth Balkus, Inga Musselman, John Ferraris
16th Annual Conference of the North American Membrane Society (NAMS 2006)
Chicago, IL, May 12-17, 2006

89. "Mixed-Matrix Membranes for CO_2 and H_2 Separations Using Metal-Organic Frameworks and Mesoporous Hybrid Silicas"
Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
U.S. Department of Energy/National Energy Technology Laboratory Contractors Review Conference
Pittsburgh, PA, June 7, 2006

90. "Peptide-Functionalized Carbon Nanotubes: Optimization and Interactions with Mammalian Cells"
G. R. Dieckmann, A. B. Dalton, J. N. Coleman, R. H. Baughman, R. K. Draper, I. H. Musselman, P. Pantano
Sixth Human Frontier Science Program Awardees Annual Meeting
Paris, France, July 3-5, 2006

91. "Scanning Tunneling Microscopy and Spectroscopy of Peptide-Wrapped Single-Walled Carbon Nanotubes"
Inga H. Musselman, Vasiliki Z. Poenitzsch, Gregg R. Dieckmann
Microscopy and Microanalysis 2006
Chicago, IL, August 2, 2006

92. "Mixed-Matrix Membranes for Gas Separation Using Metal-Organic Frameworks"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
232nd ACS National Meeting
San Francisco, CA, September 10-14, 2006

93. "Mixed Matrix Membranes Composed of Matrimid and Carbon Aerogel and Carbon Aerogel+Zeolite Composite Nanoparticles"
Yangfeng Zhang, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
232nd ACS National Meeting
San Francisco, CA, September 10-14, 2006

94. "Scanning Tunneling Microscopy and Spectroscopy of Peptide-Wrapped Single-Walled Carbon Nanotubes"
Vasiliki Z. Poenitzsch, Hui Xie, Gregg Dieckmann, Inga Musselman
62nd Southwest Regional Meeting of the American Chemical Society
Houston, TX, October 19-22, 2006

95. "Novel Acid-Doped Membranes for High Temperature PEM Fuel Cells"
Ann Chacko, Inga Holl Musselman, Duck J. Yang, Kenneth J. Balkus, Jr., John P. Ferraris
62nd Southwest Regional Meeting of the American Chemical Society
Houston, TX, October 19-22, 2006

96. "Novel Inorganic/Organic Hybrid Membranes for Proton Exchange Membrane (PEM) Fuel Cells"
Grace Jones D. Kalaw, Zhiwei Yang, Inga H. Musselman, Duck J. Yang, Kenneth J. Balkus, Jr., John P. Ferraris
62nd Southwest Regional Meeting of the American Chemical Society
Houston, TX, October 19-22, 2006

97. "Mixed Matrix Membranes Composed of Matrimid and Single-walled Carbon Nanotubes"
Yanfeng Zhang, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
62nd Southwest Regional Meeting of the American Chemical Society
Houston, TX, October 19-22, 2006

98. "Mixed-Matrix Membranes for Gas Separation Using Metal-Organic Frameworks"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
62nd Southwest Regional Meeting of the American Chemical Society
Houston, TX, October 19-22, 2006

99. "Microscopic and Spectroscopic Study of Interactions Between Amphiphilic Peptides and Single-Walled Carbon Nanotubes"
V. Z. Poenitzsch, H. Xie, A. B. Dalton, G. R. Dieckmann, I. H. Musselman
Materials Research Society, Spring 2007 Meeting
San Francisco, CA, April 10, 2007

100. "Novel Polymeric Bronsted Acid-Base Complexes for Proton Exchange Membrane (PEM) Fuel Cells"
A. Chacko, J. Ferraris, K. Balkus, I. Musselman, D. Yang
17th Annual Conference of the North American Membrane Society (NAMS 2007)
Orlando, FL, May 13-16, 2007

101. "Novel Polysilsesquioxane Hybrid Membranes for Proton Exchange Membrane Fuel Cell (PEMFC) Applications"
G. Kalaw, J. Ferraris, D. Yang, I. Musselman, K. Balkus
17th Annual Conference of the North American Membrane Society (NAMS 2007)
Orlando, FL, May 13-16, 2007

102. "Gas Permeability Properties of Matrimid Membranes Containing the Metal-Organic Frameworks"
Y. Zhang, K. Balkus, I. Musselman, J. Ferraris
17th Annual Conference of the North American Membrane Society (NAMS 2007)
Orlando, FL, May 13-16, 2007

103. "Mixed-Matrix Membranes for CO_2 and H_2 Gas Separations"
M. Ordonez, I. Musselman, K. Balkus, J. Ferraris
17th Annual Conference of the North American Membrane Society (NAMS 2007)
Orlando, FL, May 13-16, 2007

104. "Mixed-Matrix Membranes for Gas Separations Using Metal-Organic Frameworks"
E. Perez, J. Ferraris, K. Balkus, I. Musselman
17th Annual Conference of the North American Membrane Society (NAMS 2007)
Orlando, FL, May 13-16, 2007

105. "Microscopic and Spectroscopic Study of Interactions Between Amphiphilic Peptides and Single-Walled Carbon Nanotubes"
I. H. Musselman, V. Z. Poenitzsch, H. Xie, A. B. Dalton, G. R. Dieckmann
Microscopy and Microanalysis 2007
Fort Lauderdale, FL, August 7, 2007

106. "Reversible Cyclic Peptides for Use as a Diameter Selective Single-Walled Carbon Nanotube Dispersal Agent"
E. J. Becraft, W. J. Kaberle, Jr., I. H. Musselman, G. R. Dieckmann
2007 Texas-Korea Nanotech Workshop – The University of Texas at Dallas
Richardson, TX, August 7, 2007

107. "Novel Bronsted Acid-Base Complexes for PEM Fuel Cells"
Annie Chacko, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
234th American Chemical Society National Meeting
Boston, MA, August 19-23, 2007

108. "Novel Polysilsesquioxane Hybrid Membranes for Proton Exchange Membrane Fuel Cell (PEMFC) Applications"
Grace Jones D. Kalaw, John P. Ferraris, Inga H. Musselman, Kenneth J. Balkus, Jr., Duck-Joo Yang
234th American Chemical Society National Meeting
Boston, MA, August 19-23, 2007

109. "Mixed-Matrix Membranes for Gas Separations Using Metal-Organic Frameworks"
Inga H. Musselman, Edson V. Perez, Ma. Josephine C. Ordonez, Yanfeng Zhang, Kenneth J. Balkus, Jr., John P. Ferraris
235th American Chemical Society National Meeting
New Orleans, LA, April 6-10, 2008

110. "Mixed-Matrix Membranes Containing Metal-Organic Frameworks for CO_2 and H_2 Gas Separations"
Ma. Josephine C. Ordonez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
235th American Chemical Society National Meeting
New Orleans, LA, April 6-10, 2008

111. "Novel Materials for Proton Exchange Membranes for Fuel Cells"
Grace Jones D. Kalaw, Inga H. Musselman, Duck-Joo Yang, Kenneth J. Balkus, Jr., John P. Ferraris
235th American Chemical Society National Meeting
New Orleans, LA, April 6-10, 2008

112. "Correlative Microscopic and Spectroscopic Characterization of Carboxylated Single-Walled Carbon Nanotubes"
P. Bajaj, K. Artyushkova, I. Musselman
Microscopy and Microanalysis 2008
Albuquerque, NM, August 3-7, 2008

113. "Biomolecular Functionalization of Carbon Nanotubes Using Closeable Cyclic Peptides and Other Designed Peptide Systems"
Gregg Dieckmann, Rockford K. Draper, Inga H. Musselman, Steven O. Nielsen, Paul Pantano
Southwest Regional Meeting of the American Chemical Society
Little Rock, AR, October 1-4, 2008

114. "Perfluorocyclobutyl Block Copolymers for Proton Exchange Membrane Fuel Cells (PEMFCs)"
Grace Jones D. Kalaw, John P. Ferraris, Inga H. Musselman, Kenneth J. Balkus, Jr., Duck-Joo Yang
Southwest Regional Meeting of the American Chemical Society
Little Rock, AR, October 1-4, 2008

115. "Covalent Biotin Tethering of Single-Walled Carbon Nanotubes for Directed Thermal Ablation of Breast Tumor Cells"
Pooja Bajaj, David K. Bushdiecker, Pauras Memon, Carole Mikoryak, Ru-hung Wang, Gregg Dieckmann, Rockford K. Draper, Paul Pantano, Inga H. Musselman
2009 American Chemical Society Dallas/Fort Worth Section Meeting-in-Miniature
Denton, TX, May 2, 2009

116. "ZIF-8/Matrimid Mixed-Matrix Membranes"
Ma. Josephine C. Ordoñez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
2009 American Chemical Society Dallas/Fort Worth Section Meeting-in-Miniature
Denton, TX, May 2, 2009

117. "ZIF-8/Matrimid Mixed-Matrix Membranes"
Ma. Josephine C. Ordoñez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
19th Annual Conference of the North American Membrane Society (NAMS 2009)
Charleston, SC, June 20-24, 2009

118. "Mixed-Matrix Membranes for Gas Separations Using Metal-Organic Frameworks"
Edson V. Perez, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
19th Annual Conference of the North American Membrane Society (NAMS 2009)
Charleston, SC, June 20-24, 2009

119. "Intrinsically Proton-Conducting Comb-Like Polymers Containing Perfluorocyclobutyl and 1H,1,2,3-Triazole Units"
Yuanqin Zhu, Grace Kalaw, Judy Wahome, Inga Musselman, Kenneth Balkus, Duck Joo Yang, John Ferraris
19th Annual Conference of the North American Membrane Society (NAMS 2009)
Charleston, SC, June 20-24, 2009

120. "Synthesis and Characterization of Perfluorocyclobutane (PFCB) Polymers for Proton Exchange Membranes (PEM) in Fuel Cells"
Grace Kalaw, Inga Musselman, Kenneth J. Balkus, Jr., Duck-Joo Yang, John Ferraris
19th Annual Conference of the North American Membrane Society (NAMS 2009)
Charleston, SC, June 20-24, 2009

121. "ZIF-8/Matrimid Mixed-Matrix Membranes"
Ma. Josephine C. Ordoñez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
238th American Chemical Society National Meeting
Washington, DC, August 16-20, 2009

122. "Mixed-Matrix Membranes for Gas Separations Using Metal-Organic Frameworks"
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
238th American Chemical Society National Meeting
Washington, DC, August 16-20, 2009

123. "Synthesis and Characterization of Comb-Shaped Perfluorocyclobutyl Aromatic Polyethers with Phosphonated Side Chain"
Yuanqin Zhu, Grace Jones Daba Kalaw, Judy Wahome, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
238th American Chemical Society National Meeting
Washington, DC, August 16-20, 2009

124. "Synthesis and Characterization of Perfluorocyclobutane Polymers Containing Sulfonimide Acid Functionality for Proton Exchange Membrane Fuel Cells"
Grace Jones Daba Kalaw, Inga H. Musselman, Duck-Joo Yang, Kenneth J. Balkus, Jr., John P. Ferraris
238th American Chemical Society National Meeting
Washington, DC, August 16-20, 2009

125. "Use of Closeable Cyclic Peptides and Other Designed Biomolecules for the Noncovalent Functionalization of Carbon Nanotubes"
Gregg R. Dieckmann, Inga H. Musselman, Steven O. Nielsen, Eric J. Becraft, Anton Klimenko, Jane H. Nguyen
238th American Chemical Society National Meeting
Washington, DC, August 16-20, 2009

126. "MIL-53 in Mixed-Matrix Membranes for Gas Separation"
Ma. Josephine Ordoñez, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris (Talk)
43rd Annual ACS DFW Meeting-in-Miniature, The University of Texas at Dallas
Richardson, TX, April 17, 2010

127. "Zeolitic Imidazolate Framework 7 Matrimid® Mixed-Matrix Membranes for Gas Separations"
Zhen Zhang, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman (Talk)
43rd Annual ACS DFW Meeting-in-Miniature, The University of Texas at Dallas
Richardson, TX, April 17, 2010

128. "Effect of Surfactant Peptides on Electronic Properties of Single-walled Carbon Nanotubes"
D. R. Samarajeewa, G. R. Dieckamnn, I. H. Musselman (Talk)
43rd Annual ACS DFW Meeting-in-Miniature, The University of Texas at Dallas
Richardson, TX, April 17, 2010

129. "Carboxylation of Single-Walled Carbon Nanotubes for Use in Toxicology Studies"
David K. Bushdiecker II, Rockford K. Draper, Steven O. Nielsen, Paul Pantano, Inga H. Musselman (Talk)
43rd Annual ACS DFW Meeting-in-Miniature, The University of Texas at Dallas
Richardson, TX, April 17, 2010

130. "Synthesis and Characterization of ZIF-69 Metal-Organic Framework for Incorporation into Mixed-Matrix Membranes for Gas Separations"
Pauras Memon, Ma. Josephine Ordoñez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman (Talk)
43rd Annual ACS DFW Meeting-in-Miniature, The University of Texas at Dallas
Richardson, TX, April 17, 2010

131. "Zeolitic Imidazolate Framework Containing Mixed-Matrix Membranes for Hydrogen Separations"
Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris, Grace Kalaw, Jing Liu, Pauras Memon, Josephine Ordoñez, Edson Perez, Sumudu Wijenayake, Zhen Zhang (Talk) Energy Researcher's Workshop – Meeting Energy Demands of the Future
Sponsored by the UT System Energy Council
Richardson, TX, May 19-20, 2010

132. "MIL-53 in Mixed-Matrix Membranes for Gas Separation"
Ma. Josephine Ordoñez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman (Talk)
20th Annual Conference of the North American Membrane Society (NAMS 2010)
Washington D.C., July 17-22, 2010

133. "ZIF-7/Matrimid® Mixed-Matrix Membrane for Gas Separations"
Zhen Zhang, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman (Poster)
20th Annual Conference of the North American Membrane Society (NAMS 2010)
Washington D.C., July 17-22, 2010

134. "Perfluorocyclobutyl (PFCB) Polymers for Gas Separation Applications"
G. D. Kalaw, K. J. Balkus, Jr., I. H. Musselman, J. P. Ferraris (Poster)
20th Annual Conference of the North American Membrane Society (NAMS 2010)
Washington D.C., July 17-22, 2010

135. "ZIF-8/6FDA-Durene Mixed-Matrix Membranes for Gas Separation"
S. N. Wijenayake, K. J. Balkus, Jr., I. H. Musselman, J. P. Ferraris (Poster)
20th Annual Conference of the North American Membrane Society (NAMS 2010)
Washington D.C., July 17-22, 2010

136. "Incorporation of Hybrid Crystalline Microporous Materials in Mixed-Matrix Membranes for Gas Separation"
I. H. Musselman, E. V. Perez, M. J. C. Ordoñez, K. J. Balkus, Jr., J. P. Ferraris (Talk)
Microscopy and Microanalysis 2010
Portland, OR, August 1-5, 2010

137. "Effect of Surfactant Peptides on Electronic Properties of Single-walled Carbon Nanotubes"
D. R. Samarajeewa, G. R. Dieckmann, I. H. Musselman (Talk)
Microscopy and Microanalysis 2010
Portland, OR, August 1-5, 2010

138. "Microscopy, Fluorescence, and Confocal Raman Imaging of Biotinylated Single-walled Carbon Nanotubes Bound to Breast Tumor Cells"
I. H. Musselman, P. Bajaj, C. Mikoryak, R. H. Wang, D. K. Bushdiecker, II, P. Memon, G. R. Dieckmann, R. K. Draper, P. Pantano (Talk)
Microscopy and Microanalysis 2010
Portland, OR, August 1-5, 2010

139. "Perfluorocyclobutyl (PFCB) Polymers for Proton Exchange Membrane Fuel Cell (PEMFC) Applications"
Grace Jones D. Kalaw, Judy Anne N. Wahome, Kenneth J. Balkus, Jr., Inga H. Musselman, Duck-Joo Yang, John P. Ferraris
240th ACS National Meeting
Boston, MA, August 22-26, 2010

140. "Perfluorocyclobutyl (PFCB) Polymers: Basolite Z1200 Mixed-Matrix Membranes (MMMs) for Gas Separation Applications"
Grace Jones D. Kalaw, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
240th ACS National Meeting
Boston, MA, August 22-26, 2010

141. "Controlling the Surface Features of Carbon Nanotubes Using Designed Reversible Cyclic Peptides"
Gregg R. Dieckmann, Inga H. Musselman, Steven O. Nielsen, Anton S. Klimenko, Dinushi R. Samarajeewa, Chi-cheng (Talk)
Joint 66th Southwest and 62nd Southeast Regional Meeting of the American Chemical Society
New Orleans, LA, December 1-4, 2010

142. "Polymer-Based Mixed-Matrix Membranes Containing Zeolitic Imidazolate Frameworks for Gas Separations"
I. H. Musselman, M. C. Ordoñez, Z. Zhang, K. J. Balkus, Jr., J. P. Ferraris (Talk)
Pacifichem 2010
Honolulu, HI, December 15-20, 2010

143. "Perturbation of Single-Walled Carbon Nanotube Electronic Properties Using Surfactant Peptides"
I. H. Musselman, D. R. Samarajeewa, G. R. Dieckman (Poster)
Pacifichem 2010
Honolulu, HI, December 15-20, 2010

144. "Mixed-Matrix Membranes (MMMs) Comprising Metal Organic Frameworks and Novel Perfluorocyclobutyl-Based Polymers or High Temperature Polyimides for Gas Separations"
J. P. Ferraris, K. J. Balkus, Jr., I. H. Musselman, G. J. Kalaw, M. C. Ordoñez, S. N. Wijenayake (Talk)
Pacifichem 2010
Honolulu, HI, December 15-20, 2010

145. "VTEC Polymer Membranes for H_2/CO_2 Separations in Water-Gas Shift Membrane Reactors: Design of a High Temperature/High Pressure Permeameter and Membrane Membrane Testing" (Poster)
Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
ACS Dallas-Fort Worth Section, "Meet DFW's New Young Investigators" Meeting
Dallas, TX, January 29, 2011

146. "Zeolitic Imidazolate Framework (ZIF) Materials and Thermally Stable Polymers as Mixed-Matrix Membranes (MMMs) for Gas Separations"
Grace Jones D. Kalaw, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
ACS Dallas-Fort Worth Section, "Meet DFW's New Young Investigators" Meeting
Dallas, TX, January 29, 2011

147. "Cross-Linked ZIF-8/Matrimid® Mixed-Matrix Membranes for Gas Separations" (Poster)
Josephine Hsieh, Kenneth Balkus, Jr., John Ferraris, Inga Musselman
21st Annual Conference of the North American Membrane Society (NAMS 2011)
Las Vegas, NV, June 4-8, 2011

148. "Gas Permeation Studies of PBI, VTEC, PIM-1, and 6FDA-NDA Polymers at High Pressures and Temperatures" (Poster)
Edson V. Perez, Grace D. Kalaw, Kelsey I. Musselman, Kenneth J. Balkus Jr., John P. Ferraris, Inga H. Musselman
21st Annual Conference of the North American Membrane Society (NAMS 2011)
Las Vegas, NV, June 4-8, 2011

149. "Mixed-Matrix Membranes Based on Different ZIFs and Thermally Stable Polymers for Gas Separations" (Poster)
Grace Kalaw, Edson Perez, Mishelle Kochumuttom, Kenneth, J. Balkus, Jr., Inga Musselman, John Ferraris
21st Annual Conference of the North American Membrane Society (NAMS 2011)
Las Vegas, NV, June 4-8, 2011

150. "Surface Cross-Linked ZIF-8/6FDA-Durene Mixed-Matrix Membranes for Hydrogen Separation" (Poster)
Sumudu Wijenayake, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
21st Annual Conference of the North American Membrane Society (NAMS 2011)
Las Vegas, NV, June 4-8, 2011

151. "ZIF-7 and ZIF-8 Asymmetric Mixed-Matrix Membranes" (Talk)
Kenneth J. Balkus, William Regner, Catherine Eckert, Chalita Ratanatawanate, John P. Ferraris, Inga H. Musselman
21st Annual Conference of the North American Membrane Society (NAMS 2011)
Las Vegas, NV, June 4-8, 2011

152. "Transmission Electron Microscopy and Three-Dimensional Tomography of Peptide-Coated Single-Walled Carbon Nanotubes" (Poster)
P. Bajaj, J. Nguyen, C. Gilpin, G.R. Dieckmann, C.C. Chiu, S.O. Nielsen, I. H. Musselman
Microscopy & Microanalysis 2011
Nashville, TN, August 7-11, 2011

153. "ZIF-8 Asymmetric Mixed-Matrix Membranes for Gas Separation" (Talk)
C. Ratanatawanate, John P. Ferraris, Inga H. Musselman, Kenneth J. Balkus, Jr.
242nd ACS National Meeting & Exposition
Denver, CO, August 28-September 1, 2011

154. "Gas Permeation Studies of VTEC and PBI Membranes and ZIF-8/PBI Mixed-Matrix Membranes at High Pressures and Temperatures" (Poster)
Edson V. Perez, Grace D. Kalaw, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
2nd American Chemical Society's Meet DFW's New Young Investigators
Dallas, TX, January 28, 2012.

155. "ZIF-8/Polybenzimidazole (PBI) Mixed-Matrix Membranes (MMMs) for H_2/CO_2 Separations" (Poster)
Grace Jones D. Kalaw, E. V. Perez, I. H. Musselman, K. J. Balkus, Jr., J. P. Ferraris
2nd American Chemical Society's Meet DFW's New Young Investigators
Dallas, TX, January 28, 2012.

156. "6FDA-Based Polyimide Mixed-Matrix Membranes (MMMs) for Gas Separations" (Talk)
Bao L. Nguyen, Grace D. Kalaw, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
45th Annual ACS DFW Meeting-in-Miniature, University of Dallas
Irving, TX, April 21, 2012

157. "Spin-Coated Mixed-Matrix Membrane for Gas Separation at High Pressure and High Temperature" (Talk)
Jing Liu, Grace Jones D. Kalaw, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
45th Annual ACS DFW Meeting-in-Miniature, University of Dallas
Irving, TX, April 21, 2012

158. "The Effect of Carboxylic Acid Functionality on Single-Walled Carbon Nanotube Cytotoxicity" (Talk)
David K. Bushdiecker II, Ruhung Wang, Gregg R. Dieckmann, Rockford K. Draper, Steven O. Nielsen, Paul Pantano, Inga H. Musselman
45th Annual ACS DFW Meeting-in-Miniature, University of Dallas
Irving, TX, April 21, 2012

159. "Surfactant Peptide/Single-Walled Carbon Nanotube (SWCNT) Composites with Altered Electronic Properties" (Talk)
Dinushi R. Samarajeewa, Gregg R. Dieckmann, Steven O. Nielsen, Inga H. Musselman
45th Annual ACS DFW Meeting-in-Miniature, University of Dallas
Irving, TX, April 21, 2012

160. "ZIF-8/6FDA-Durene Mixed-Matrix Membranes for H_2/CO_2 Separation" (Talk)
Sumudu Wijenayake, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
45th Annual ACS DFW Meeting-in-Miniature, University of Dallas
Irving, TX, April 21, 2012

161. "Fabrication and Characterization of Novel MOF Stabilized Immiscible Polymer Blend Mixed-Matrix Membranes for Gas Separations" (Talk)
Nimanka P. Panapitiya, Do Nguyen, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
45th Annual ACS DFW Meeting-in-Miniature, University of Dallas
Irving, TX, April 21, 2012

162. "ZIF-8/Polybenzimidazole Mixed-Matrix Membranes for Gas Separations" (Talk)
Grace Jones D. Kalaw, E. V. Perez, I. H. Musselman, K. J. Balkus, Jr., J. P. Ferraris
22nd Annual Conference of the North American Membrane Society (NAMS 2012)
New Orleans, LA, June 9-13, 2012

163. "Asymmetric ZIF-8/6FDA-Durene Mixed-Matrix Membranes for H_2/CO_2 Separation" (Poster)
Sumudu Wijenayake, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
22nd Annual Conference of the North American Membrane Society (NAMS 2012)
New Orleans, LA, June 9-13, 2012

164. "Fabrication and Characterization of Novel Metal Organic Framework Stabilized Immiscible Polymer Blend Membranes for Gas Separations" (Poster)
Nimanka P. Panapitiya, Do Nguyen, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
22nd Annual Conference of the North American Membrane Society (NAMS 2012)
New Orleans, LA, June 9-13, 2012

165. "Surfactant Peptide/Single-Walled Carbon Nanotube Composites with Altered Electronic Properties" (Talk)
Dinushi Samarajeewa, Gregg R. Dieckmann, Steven O. Nielsen, Inga H. Musselman
Microscopy & Microanalysis 2012
Phoenix, AZ, July 29-August 2, 2012

166. "Rapid Synthesis and Characterization of Zeolitic Imidazolate Framework 78"
Yu Huang, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
46th Annual ACS DFW Meeting-in-Miniature, Texas A&M - Commerce
Commerce, TX, April 27, 2013

167. "Synthesis and Characterization of Nanometer-Sized ZIF-20 Particles for Gas Separations"
Natasha Varughese, David K. Bushdiecker II, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
46th Annual ACS DFW Meeting-in-Miniature, Texas A&M - Commerce
Commerce, TX, April 27, 2013

168. "Spin-coated Mixed-Matrix Membranes for Gas Separations"
Jing Liu, Grace Jones D. Kalaw, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
46th Annual ACS DFW Meeting-in-Miniature, Texas A&M – Commerce
Commerce, TX, April 27, 2013

169. "Local Young's Modulus of Pure and Blended Polymers Using PeakForce™ Quantitative Nanomechanical Mapping"
David Bushdiecker II, Nimanka P. Panapitiya, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
46th Annual ACS DFW Meeting-in-Miniature, Texas A&M - Commerce
Commerce, TX, April 27, 2013

170. "Effect of Functionalization of Metal Organic Framework (MOF) Material in Polyimides for Gas Separations" (Talk and Poster)
Grace D. Kalaw, Edson V. Perez, Inga H. Musselman, Kenneth J. Balkus Jr. John P. Ferraris
23rd Annual Conference of the North American Membrane Society (NAMS 2013)
Boise, ID, June 8-12, 2013

171. "Adsorption of Naphthalene and Pyrene Containing Surfactant Peptides onto Single-Walled Carbon Nanotubes: A Microscopy, Spectroscopy, and Theoretical Study" (Poster)
Dinushi R. Samarajeewa; Udayana Ranatunga; Blake Wilson; Ariane Lemieux; Gregg Dieckmann; Steve Nielsen; Inga Musselman
Microscopy & Microanalysis 2013
Indianapolis, IN, August 4-8, 2013

172. "Local Young's Modulus of Pure and Blended Polymers Using PeakForce Quantitative Nanomechanical Mapping" (Poster)
Inga H. Musselman, David K. Bushdiecker II, Nimanka P. Panapitiya, Charles K. Miller, Kenneth J. Balkus, Jr., John P. Ferraris
247th ACS National Meeting and Exposition
Dallas, TX, March 16-20, 2014

173. "Polymer-Coated Tubular Membrane Reactor for Water-Gas Shift Reaction and Gas Separation" (Poster)
Yu Huang, Edson V. Perez, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
247th ACS National Meeting and Exposition
Dallas, TX, March 16-20, 2014

174. "Effects of Functionalization of Metal Organic Framework (MOF) and Metal Organic Polyhedra (MOP) Materials in Polyimides for Gas Separations at High Pressure and High Temperature" (Poster)
Edson V. Perez, Grace D. Kalaw, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
247th ACS National Meeting and Exposition
Dallas, TX, March 16-20, 2014

175. "Stabilization of Immiscible Polymer Blends Using Structure Directing Metal Organic Frameworks (MOFs)" (Poster)
Nimanka P. Panapitiya, Kenneth J. Balkus, Jr., Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
247th ACS National Meeting and Exposition
Dallas, TX, March 16-20, 2014

176. "Fabrication of Asymmetric ZIF-8/Polyimide Mixed Matrix Membranes (MMMs) Using a Spin Coating Technique for Gas Separations" (Poster)
Sumudu N. Wijenayake, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
247th ACS National Meeting and Exposition
Dallas, TX, March 16-20, 2014

177. "Use of Colloidal Metal-Organic Frameworks (MOFs) as Multifunctional Compatibilizers for Immiscible Polyimide/Polybenzimidazole Blend Membranes" (Talk)
Cindy Nguyen, Nimanka P. Panapitiya, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
47th Annual ACS DFW Meeting-in-Miniature, Texas Wesleyan University
Fort Worth, TX, April 26, 2014

178. "A Fast and Facile Synthetic Route for Zeolitic Imidazolate Framework 11 Nanoparticles" (Talk)
Do Nguyen, Kenneth J. Balkus, Jr., Inga H. Musselman, John P. Ferraris
47th Annual ACS DFW Meeting-in-Miniature, Texas Wesleyan University
Fort Worth, TX, April 26, 2014

179. "High Pressure and High Temperature Gas Adsorption in Mixed-Matrix Membranes Containing Metal Organic Polyhedra-18" (Talk)
E. V. Perez, J. P. Ferraris, K. J. Balkus, Jr., and I. H. Musselman
24th Annual Conference of the North American Membrane Society (NAMS 2014)
Houston, TX, May 31-June 4, 2014

180. "NH_2-MIL-53/VTEC™Mixed-Matrix Membranes for H_2/CO_2 Separations" (Poster)
Edson V. Perez, Grace Jones D. Kalaw, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
24th Annual Conference of the North American Membrane Society (NAMS 2014)
Houston, TX, May 31-June 4, 2014

181. "Integrated Water-Gas Shift Reactor for Polymer-Coated Tubular Membrane" (Poster)
Yu Huang, Edson V. Perez, Charles K. Miller, Kenneth J. Balkus, Jr., John P. Ferraris, Inga H. Musselman
24th Annual Conference of the North American Membrane Society (NAMS 2014)
Houston, TX, May 31-June 4, 2014

182. "Gas Separation Membranes from Immiscible Polymer Blends Compatibilized with Small Molecules" (Poster)
Nimanka P. Panapitiya, Sumudu Wijenayake, Cindy Nguyen, Do Nguyen, Inga H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
24th Annual Conference of the North American Membrane Society (NAMS 2014)
Houston, TX, May 31-June 4, 2014
Dr. Panapitiya received the *Journal of Applied Polymer Science* Award for the contributions of his research to the development of polymer sciences.

183. "Different Approaches of Cross-Linking Mixed Matrix Membranes for Hydrogen and Carbon Dioxide Separations" (Poster)
Sumudu N. Wijenayake, Nimanka P. Panapitiya, Cindy Nguyen, I. H. Musselman, Kenneth J. Balkus, Jr., John P. Ferraris
24th Annual Conference of the North American Membrane Society (NAMS 2014)
Houston, TX, May 31-June 4, 2014
Dr. Wijenayake was awarded second place in the student poster competition.

184. "SEM, TEM, and AFM Analyses of Phase-Separated Polymer Blend Membranes for Gas Separations" (Talk)
I.H. Musselman, N.P. Panapitiya, D.K. Bushdiecker II, M.P. Tomasek, C.K. Miller, C.J. Gilpin, K.J. Balkus, Jr., J.P. Ferraris
Microscopy & Microanalysis 2014
Hartford, CT, August 3-7, 2014

185. "Synthesis of Metal-Organic Cubes for Mixed-Matrix Membrane Fabrications" (Talk)
Ashutosh Baskaran, Edson V. Perez, John P. Ferraris, Kenneth J. Balkus, Inga H. Musselman
2014 George A. Jeffrey NanoExplorers, NanoTech Institute, The University of Texas at Dallas
Richardson, TX, August 13, 2014

186. "Carbon Dioxide Sorption in Metal Organic Polyhedras at High Pressure and High Temperature" (Talk)
Edson V. Perez, John P. Ferraris, Kenneth J. Balkus, Jr., Inga H. Musselman
248th ACS National Meeting and Exposition
San Francisco, CA, August 10-14, 2014

Works in progress:
None

Submitted for publication:
None

External funding for original investigations:

Proposals submitted (2007-2014):
"Carbon Nanotubes in Cancer [one project of a program project entitled "Interdisciplinary Studies on the Combat Readiness and Health Isues Faced by Military Personnel"
S. R. Goodman, PI]
R. K. Draper, G. R. Dieckmann, I. H. Musselman, P. Pantano
Department of Defense, U.S. Army Medical Research Acquisition Activity
2007-2008, $210,000

"Development of High Resolution Imaging Techniques for Structure Studies of Carbon Nanotubes Coated with Biomolecules"
G. R. Dieckmann, I. H. Musselman, C. J. Gilpin (UTSW)
UT Southwestern/UTD Grant for Collaborative Research
2007-2008, $100,000

"Development of High Resolution Imaging Methods to Study Biomolecule Carbon Nanotube Interactions"
Inga H. Musselman (PI)
Robert A. Welch Foundation
2007-2010, $150,000

"Facilitated Gas Transport by Novel Metal Organic Framework/Polymer Membranes"
Kenneth J. Balkus, Jr. (PI), John P. Ferraris (co-PI), Inga H. Musselman (co-PI)
National Science Foundation Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
2007-2010, $632,256

"Electronic Properties of Peptide-Coated Single-Walled Carbon Nanotubes"
Inga H. Musselman (PI)
Robert A. Welch Foundation
2008-2011, $150,000

"Microscopy and Spectroscopy Studies of the Electronic Properties of Peptide/Carbon Nanotube Composites"
Inga H. Musselman (PI), Alan B. Dalton (Univ. of Surrey), Gregg R. Dieckmann (co-PI), Steven O. Nielsen (co-PI)
National Science Foundation: Division of Chemistry
2008-2011, $1,107,593

"Noncovalent Functionalization of Carbon Nanotubes Using Designed Polypeptides"
G. R. Dieckmann (PI), A. B. Dalton (co-PI) (Univ. of Surrey), C. Gilpin (co-PI) (UTSW), I. H. Musselman (co-PI), S. Nielsen (co-PI)
National Science Foundation Directorate for Math and Physical Sciences: Chemistry (CHE),
2008-2010, $1,497,294

"Novel Metal-Organic Framework/Polymer Membranes for Facilitated Gas Transport"
John P. Ferraris (PI), Kenneth J. Balkus, Jr. (co-PI), Inga H. Musselman (co-PI)
National Science Foundation Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
2008-2011, $659,643

"Novel Block Copolymers for High Temperature PEM Fuel Cells"
John P. Ferraris (PI), Kenneth J. Balkus, Jr. (co-PI), Inga H. Musselman (co-PI), D.J. Yang (co-PI)
National Science Foundation
2008-2011, $372,876

"Pushing the Information Limit in Electron Tomography: The Way Forward"
Gregg R. Dieckmann (PI), Christopher J. Gilpin (co-PI), Inga H. Musselman (co-PI), Steven O. Nielsen (co-PI)
National Institutes of Health
2009-2011, $933,939

"Electronic Properties of Peptide/Carbon Nanotube Composites"
Inga H. Musselman (PI)
Robert A. Welch Foundation
2009-2012, $150,000

"Developing High Resolution Imaging Methodologies for Soft Matter-Functionalized Nanomaterials"
Inga H. Musselman (PI), Gregg R. Dieckmann (co-PI), Steven O. Nielsen (co-PI), Christopher J. Gilpin (co-PI)
National Science Foundation
2009-2012, $495,938

"Reversible Cyclic Peptides for Carbon Nanotube Functionalization"
Gregg R. Dieckmann (PI), Christopher J. Gilpin (co-PI), Inga H. Musselman (co-PI), Steven O. Nielsen (co-PI)
National Science Foundation
2009-2012, $552,813

"Microscopy and Spectroscopy Studies of the Electronic Properties of Peptide/Carbon Nanotube Composites"
Inga H. Musselman (PI), Alan B. Dalton (Univ. of Surrey), Gregg R. Dieckmann (co-PI), Steven O. Nielsen (co-PI)
National Science Foundation: Division of Chemistry
2009-2012, $450,125

"ADVANCE: Advancing Women at UTDallas"
Marianne C. Stewart (PI), Rachel T. Croson (co-PI), Catherine C. Eckel (co-PI), Inga Musselman (co-PI), Li Zhang (co-PI)
National Science Foundation, Division of Human Resource Development
2009-2012, $686,640

"Design and Synthesis of Novel Polyelectrolyte Block Copolymers"
John P. Ferraris (PI), Kenneth J. Balkus, Jr. (co-PI), Inga H. Musselman (co-PI), D.J. Yang (co-PI)
National Science Foundation
2009-2012, $379,134

"Novel Metal-Organic Framework/Polymer Membranes for Facilitated Gas Transport"
John P. Ferraris (PI), Kenneth J. Balkus, Jr. (co-PI), Inga H. Musselman (co-PI)
National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
2009-2012, $379,134

"Integrated Water Gas Shift Membrane Reactors Utilizing Novel, Non-precious Metal Mixed Matrix Membranes"
John P. Ferraris (PI), Kenneth J. Balkus, Jr., (co-PI), Inga H. Musselman (co-PI)
Department of Energy, Office of Fossil Energy, National Energy Technology Laboratory
2009-2012, $999,992

"REU Supplement - Novel Metal-Organic Framework/Polymer Membranes for Facilitated Gas Transport"
John P. Ferraris (PI), Kenneth J. Balkus, Jr. (co-PI), Inga H. Musselman (co-PI)
National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
June 2010 – August 2010, $5,800

"Controlled Patterning of Carbon Nanotube Surfaces Using Designed Peptides"
Gregg R. Dieckmann (PI), Christopher Gilpin (co-PI), Inga H. Musselman (co-PI), Steven Nielsen (co-PI)
National Science Foundation, Division of Chemistry
2010-2013, $501,182

"Electrical Properties of Peptide/SWNT Composites"
Inga H. Musselman (PI), Gregg R. Dieckmann (co-PI), Marc Peter in het Panhuis (co-PI), Steven Nielsen (co-PI)
National Science Foundation, Division of Chemistry
2010-2013, $481,938

"Controlled Patterning of Carbon Nanotube Surfaces Using Designed Peptides"
Gregg R. Dieckmann (PI), Christopher Gilpin (co-PI), Inga H. Musselman (co-PI), Steven Nielsen (co-PI)
National Science Foundation, Division of Chemistry
2011-2014, $826,391

"Electronic Properties of Peptide/Carbon Nanotube Composites"
Inga H. Musselman (PI), Gregg Dieckmann (co-PI), Steven Nielsen (co-PI), Marc in het Panhuis (co-PI)
National Science Foundation, Division of Chemistry
2011-2014, $740,988

"Novel Electrospun Nanofiber Composite Membranes for PEM Fuel Cells"
Kenneth J. Balkus, Jr. (PI), John P. Ferraris (co-PI), Inga H. Musselman (co-PI), Dennis Smith (co-PI), D. J. Yang (co-PI)
Department of Energy
2011-2014, $2,399,969

"Dispersion, Bioaccumulation, and Mechanisms of Nanoparticle Toxicity"
Steven Nielsen (PI), Gregg R. Dieckmann (co-PI), Rockford K. Draper (co-PI), Inga H. Musselman (co-PI), Paul Pantano (co-PI)
Semiconductor Research Corporation
2012-2014, $588,306

"Novel Nanostructured Mixed Matrix Membranes for Gas Separations"
John P. Ferraris (PI), Kenneth J. Balkus, Jr., (co-PI), Inga H. Musselman (co-PI)
National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
2012-2015, $365,823

"Peptide-Controlled Assembly of Nanoarchitectures"
Gregg R. Dieckmann (PI), Inga H. Musselman (co-PI), Steven O. Nielsen (co-PI)
National Science Foundation, Division of Chemistry
2012-2015, $754,809

"Development of Partially Fluorinated Proton Exchange Membranes Based on PFCP for Fuel Cells"
D.J. Yang (PI), Young Taek Hong (PI), Kenneth J. Balkus, Jr. (co-PI), John P. Ferraris (co-PI), Inga H. Musselman (co-PI), Dennis Smith (co-PI)
Korea Research Institute of Chemical Technology
2012-2017, $1,494,210

"Novel Nanostructured Mixed Matrix Membranes for Gas Separations"
John P. Ferraris (PI), Kenneth J. Balkus, Jr., (co-PI), Inga H. Musselman (co-PI)
National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
2013-2016, $370,242

"Mapping the Elastic Modulus at Polymer Blend Interfaces Using Atomic Force Microscopy"
Inga Holl Musselman (PI)
Robert A. Welch Foundation
2013-2016, $180,000

"Polyimide/Ionic Liquid Mixed Matrix Membranes"
Kenneth J. Balkus, Jr. (PI), John P. Ferraris (co-PI), Inga H. Musselman (co-PI)
Aspen Products Group Inc.
2013-2014, $150,000

"Novel Nanostructured Membranes for Gas Separations"
John P. Ferraris (PI), Inga H. Musselman (co-PI), Kenneth J. Balkus, Jr. (co-PI)
National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
2014-2017, $398,492

Grants/contracts awarded:
"Study of Nonlinear Optical and Other Polymers with Scanning Tunneling Microscopy"
P. E. Russell (co-PI), Inga Holl Musselman (co-PI)
Hoechst Celanese Research Division, Summit, NJ
1989-1990, $10,000

"Scanning Tunneling Microscopy of Nonlinear Optical Devices, Liquid Crystal Polymers and Barrier Coatings on Polymers"
P. E. Russell (co-PI), Inga Holl Musselman (co-PI)
Hoechst Celanese Research Division, Summit, NJ
1990-1991, $10,000

"A Data Storage System for the Scanning Tunneling Microscope / Atomic Force Microscope"
Inga Holl Musselman (PI)
University of Texas at Dallas, Clark Mentor Research Award
1993, $740

"Characterization of Polypeptide Films by Scanned Probe Microscopies"
Inga Holl Musselman (PI)
American Chemical Society Petroleum Research Fund -Type G
1993-1995, $20,000

"Tunable Composite Membranes for Gas Separation"
John Ferraris (PI), Ken Balkus (co-PI), Inga Holl Musselman (co-PI)
Department of Energy, Pittsburgh Energy Technology Center
September 1994 - August 1997, $198,765

"Chemical Microscopy: The Future of STM"
Inga Holl Musselman (PI)
Robert A. Welch Foundation
June 1996 - May 1999, $108,000

"Composite Membranes for Gas Separations"
Inga Holl Musselman (PI)
Mobil Technology Company, Mobil Strategic Research Center
August 1997 - August 2000, account extended to 2008, $47,966

"Composite Membranes for Gas Separations"
Inga Holl Musselman (PI)
Texas Higher Education Coordinating Board - Advanced Technology Program
January 1998 - August 2000, $142,321

"Contrast in STM Images of Molecular Adsorbates"
Inga Holl Musselman (PI)
Robert A. Welch Foundation
June 1999 - May 2002, $135,000

"Chemical Contrast in STM Images of Materials for Molecular Scale Sensors and Device Structures"
Inga Holl Musselman (PI)
Robert A. Welch Foundation
June 2002 – May 2005, $150,000

"Mixed Matrix Membranes for Gas Separation Using Nanoporous Metal Oxides and Metal Organic Frameworks"
Inga Holl Musselman (PI)
Texas Higher Education Coordinating Board - Advanced Technology Program
January 2004 - December 2005, $150,000

"Mixed-Matrix Membranes for CO_2 and H_2 Gas Separations Using Metal-Organic Frameworks and Mesoporous Hybrid Silicas"
Inga Holl Musselman (PI), Kenneth J. Balkus, Jr. (co-PI), John P. Ferraris (co-PI)
Department of Energy
September 2004 – August 2007, no cost extension to August 2008, $200,000 with $25,000 matching

"Peptide-Coated Carbon Nanotubes: Toxicity and Targeted Cell Ablation"
Gregg R. Dieckmann (PI) UTD (with contributing investigators, R. K. Draper, I. Musselman and P. Pantano), J. Coleman (PI) Trinity College, A. B. Dalton (PI) University of Surrey
Human Frontiers for Science Program
June 2005 – May 2008, $1,050,000

"Novel Proton-Conducting Membrane with Well-Controlled Nano-Morphology for PEM Fuel Cells"
D. J. Yang (PI), I. H. Musselman (co-PI), Stanley Rodrigues (co-PI, Wright Patterson), Jong-Ho Lee (co-PI, KITECH)
UTD-SPRING Research & Technology Transfer Program
October 2006 – September 2008, $250,000

"Carbon Nanotubes in Cancer [one project of a program project entitled "Interdisciplinary Studies on the Combat Readiness and Health Issues Faced by Military Personnel", S. R. Goodman, PI]
R. K. Draper, G. R. Dieckmann, I. H. Musselman, P. Pantano
Department of Defense, U.S. Army Medical Research Acquisition Activity
July 2007 – June 2008, $210,000

"Targeted Delivery of Carbon Nanotubes to Cancer Cells"
R. K. Draper (PI), G. R. Dieckmann (co-PI), I. H. Musselman (co-PI), P. Pantano (co-PI), Ellen S. Vitetta (PI, UTSW)
U.S. Army TATRC
December 2007 – August 2009, $413,243

"Novel Zeolitic Imidazolate Framework/Polymer Membranes for Hydrogen Separations in Coal Processing"
Inga H. Musselman (PI), Kenneth J. Balkus, Jr., (co-PI), John P. Ferraris (co-PI)
Department of Energy-National Energy Technology Laboratory
February 2009 – January 2013, $300,000 with $65,000 matching funds

"Predicting, Testing, and Neutralizing Nanoparticle Toxicity"
Steven O. Nielsen (PI), Gregg R. Dieckmann (co-PI), Rockford K. Draper (co-PI), Inga H. Musselman (co-PI), Paul Pantano (co-PI)
Semiconductor Research Corporation/SEMATECH Research Center April 2009 – December 2010, extended to March 2012, $557,100

"Novel Metal-Organic Framework/Polymer Membranes for Facilitated Gas Transport"
John P. Ferraris (PI), Kenneth J. Balkus, Jr. (co-PI), Inga H. Musselman (co-PI) National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
September 2009 – August 2013, $299,999

"Integrated Water Gas Shift Reactors Utilizing Novel, Non-precious Metal Mixed-Matrix Membranes"
John P. Ferraris (PI), Kenneth J. Balkus, Jr., (co-PI), Inga H. Musselman (co-PI)
Department of Energy, Office of Fossil Energy, National Energy Technology Laboratory, October 2009 – September 2013, $999,992 with $250,000 matching funds

"REU Supplement - Novel Metal-Organic Framework/Polymer Membranes for Facilitated Gas Transport"
John P. Ferraris (PI), Kenneth J. Balkus, Jr. (co-PI), Inga H. Musselman (co-PI) National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
June 2010 – August 2013, $5,800

"Dispersion, Bioaccumulation, and Mechanisms of Nanoparticle Toxicity"
Steven Nielsen (PI), Gregg R. Dieckmann (co-PI), Rockford K. Draper (co-PI), Inga H. Musselman (co-PI), Paul Pantano (co-PI)
Semiconductor Research Corporation January 2012 – December 2014, $351,000

"Novel Nanostructured Membranes for Gas Separations"
John P. Ferraris (PI), Inga H. Musselman (co-PI), Kenneth J. Balkus, Jr. (co-PI) National Science Foundation, Directorate for Engineering: Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
June 2014 – May 2017, $398,492