

PAUL R. VAN TASSEL

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Positions:

<i>Professor & Dept. Chair</i>	Yale University , New Haven, CT Department of Chemical and Environmental Engineering	7/10-present
<i>Professor</i>	Yale University , New Haven, CT Department of Chemical Engineering	1/07-6/10
<i>Associate Professor</i>	Yale University , New Haven, CT Department of Chemical Engineering	1/03-12/06
<i>Associate Professor</i>	Wayne State University , Detroit, MI Department of Chemical Engineering and Materials Science	8/01-12/02
<i>Assistant Professor</i>	Wayne State University , Detroit, MI Department of Chemical Engineering and Materials Science	8/96-8/01

Education:

<i>Post-Doctoral</i>	Université Pierre et Marie Curie , Paris, France Laboratoire de Physique Théorique des Liquides Project Title: <i>Bio-macromolecular adsorption at liquid-solid interfaces</i> Collaborators: Gilles Tarjus, Pascal Viot, Julian Talbot, and Pierre Schaaf	10/93-7/96
<i>Doctoral</i>	University of Minnesota Graduate School , Minneapolis, MN Ph.D., 1993, Department of Chemical Engineering and Materials Science Thesis Title: <i>Structure, dynamics, and thermodynamics of small molecules adsorbed in zeolite micropores: simulation and statistical mechanics</i> Advisers: Alon V. McCormick and H. Ted Davis	9/88-10/93
<i>Pre-Doctoral</i>	Saint Olaf College , Northfield, MN B.A., 1987, Majors: Chemistry and Mathematics	9/83-5/87

Honors:

Professorial

- Keynote Address, AIChE Annual Meeting, Area 1A (2014)
- Connecticut Academy of Science and Engineering (2011)
- Invited Professor, Université de Cergy-Pontoise, France (2009)
- J. William Fulbright Scholarship, France (2006)
- John J. Lee Associate Professorship of Chemical Engineering (2005)
- Invited Feature Article, *Journal of Colloid and Interface Science* (2003)
- National Academy of Engineering: *Frontiers of Engineering* (1999)
- National Science Foundation CAREER Award (1998)

Post-Doctoral

- NATO-NSF Post-Doctoral Fellowship
- Chateaubriand Post-Doctoral Fellowship
- Enrico Fermi Summer School of Physics Scholarship

Doctoral

- University of Minnesota Graduate School Doctoral Dissertation Fellowship
- Alpha Chi Sigma Award

Pre-Doctoral

- Magna Cum Laude
- Phi Beta Kappa
- Departmental Distinction
- Deans' List all eight semesters
- Letterwinner and elected team captain, St. Olaf College Track Team
- M.I.A.C. Academic All-Conference Track Team

Research Interests:

- Biomolecules at interfaces
- Nanofilm biomaterials
- Macromolecular adsorption under electric potential
- Layer-by-layer assembly
- Adsorption in templated porous materials
- Optical waveguide lightmode spectroscopy
- Molecular computer simulation
- Statistical mechanics

Research Proposals Funded:

20. “Therapies to triple negative breast cancer: molecular agent identification and nanoscale delivery”, Yale University Endowed Postdoctoral Fellowship, **\$40,600**, 1/15-12/15.
19. “Biological characterization of porous nanofilm biomaterials”, Burroughs Wellcome Fund, **\$12,000**, 6/14-8/14.
18. “An optical waveguide lightmode spectroscopy instrument for teaching and research”, *National Science Foundation*, CBET-1066994, **\$27,785**, 7/11-6/13.
17. “Carbon nanotubes as antimicrobial agents”, *National Science Foundation*, CBET-0756323, **\$240,000**, 8/08-7/13 (PI = Van Tassel, co-PI = N Andrews, LD Pfefferle, and M Elimelech, Yale University).
16. “Polyelectrolyte adsorption at a conducting interface: a simulation study”, *American Chemical Society Petroleum Research Fund*, 47776-AC5, **\$100,000**, 1/08-8/12.
15. “Continuous polyelectrolyte adsorption under an applied electric potential”, *National Science Foundation*, CBET-0651980, **\$180,000**, 4/07-3/10.
14. REU to “Macro-ions near confining surfaces: influence of colloidal forces”, *National Science Foundation*, CTS-0621485, **\$10,000**, 10/06-3/08.
13. “Protein-polyelectrolyte nanofilms: control via substrate electric potential”, *Fulbright Foundation (France)*, **15,915 €**, 3/06-8/06.
12. “Macro-ions near confining surfaces: influence of colloidal forces”, *National Science Foundation*, CTS-0434777, **\$450,000**, 10/04-3/08 (PI = Van Tassel, co-PI = JY Walz, Yale University).
11. "Templated molecular recognition: theory and simulation", *National Science Foundation*, CTS-0337829, **\$385,502**, 6/03-12/06 (PI = Van Tassel, co-PI = JJ Potoff, Wayne State University).
10. "MRI: Acquisition of a shared scanning probe microscope facility to improve research and education", *National Science Foundation*, CTS-0216109, **\$220,000**, 8/02-7/03 (PI = G Mao, Wayne State University, co-PI = Van Tassel and others).
9. "Dissipative particle dynamics simulations of particle deposition at the liquid-solid interface", *The Unilever Corp.*, **\$50,000**, 11/01-10/03 (with CW Manke, Wayne State University).

8. "Theoretical studies of the influence of removable templates on the adsorptive properties of porous materials", *American Chemical Society Petroleum Research Fund*, 34163-G9, **\$25,000**, 9/99-8/01.
7. "Modeling of adsorption in templated porous materials", *National Science Foundation*, CTS-9876599, **\$264,130**, 4/99-3/02.
6. "Affinity and electric field techniques for biomaterial protein coating", *National Institutes of Health*, R01-EB00258, **\$744,797**, 2/99-1/04.
5. "Advanced affinity techniques for controlling interfacial protein behavior", Wayne State University Research Grant Program, **\$7,000**, 4/98-3/99.
4. "Kinetic and thermodynamic studies of advanced affinity techniques for controlling interfacial protein behavior", *National Science Foundation CAREER Award*, CTS-9733310, **\$260,000**, 6/98-12/02.
3. "Fundamental studies of protein and colloid deposition: Towards advancing thin film technologies", Wayne State University Research Grant Program, **\$7,000**, 4/97-3/98.
2. "The effects of conformational changes on the adsorption of large particles at liquid-solid interfaces", *National Science Foundation NATO Postdoctoral Fellowship Program*, **\$33,000**, 8/95-7/96.
1. "Irreversible adsorption of large particles at liquid-solid interfaces: The effects of particle conformational change", *French Government Chateaubriand Fellowship Program*, **\$20,000**, 8/94-7/95.

Conference Proposals Funded:

6. "Symposium at the March, 2010 Meeting of the American Chemical Society entitled Engineering the Cell-Material Interface", *National Science Foundation*, CBET-1021403, **\$7434**, 3/10.
5. "A CECAM workshop on metastability and landscapes in complex systems", *National Science Foundation*, CTS-0332069, **\$17,640**, 5/03 (with PG Debenedetti, Princeton University).
4. "A workshop on nanoscale science and engineering: common challenges and integrative opportunities across areas of research, programming and industry", *National Science Foundation*, CTS-0240561, **\$14,000**, 11/02 (with GU Lee, Purdue University).
3. "Workshop on grand challenges in nanoscale science and engineering", *National Science Foundation*, CTS-0129012, **\$14,490**, 11/01 (with GU Lee, Purdue University).

2. "Symposium at the August, 2001 Meeting of the American Chemical Society entitled Biomacromolecules at Interfaces", *American Chemical Society Petroleum Research Fund*, 37386-SE, **\$3600**, 8/01.

1. "Midwest thermodynamics and statistical mechanics conference", *National Science Foundation*, CTS-9978576, **\$6000**, 5/99 (with CW Manke, Wayne State University).

Refereed Publications:

77. "Nanofilm biomaterials: dual control of mechanical and bioactive properties", E. Pauthe and P. R. Van Tassel, Layer-by-layer films for biomedical applications (Wiley-VCH), **2015**, 79.

76. "Size-selective, non-covalent dispersion of carbon nanotubes by pegylated lipids: a coarse-grained molecular dynamics study", J. Maatta, V. Sampsa, P. R. Van Tassel, and M. Sammalkorpi, *Journal of Chemical and Engineering Data*, **2014**, 59, 3080.

75. "Nanotemplated polyelectrolyte films: toward a porous biomolecular delivery system", A. Gand, M. Hindie, D. Chacon, P. R. Van Tassel, and E. Pauthe, *BioMatter*, **2014**, 4, e28823.

74. "Layer-by-layer films as biomaterials: bioactivity and mechanics", E. Pauthe and P. R. Van Tassel, *Journal of Biomaterials Science – Polymer Edition*, **2014**, 25, 1489.

73. "Effects of human fibronectin and human serum albumin sequential adsorption on pre-osteoblastic cell adhesion", M. Hindie, E. Camand, R. Agniel, F. Carreiras, P. R. Van Tassel, and E. Pauthe, *Biointerphases*, **2014**, 9, 029008.

72. "Nanotechnology in medicine: nanofilm biomaterials", P. R. Van Tassel, *Yale Journal of Biology and Medicine*, **2013**, 86, 527.

71. "Carbon nanotube bundling: influence on layer-by-layer assembly and antimicrobial activity", S. Aslan, J. Määttä, B. Z. Haznedaroglu, L. D. Pfefferle, M. Elimelech, E. Pauthe, M. Sammalkorpi, and P. R. Van Tassel, *Soft Matter*, **2013**, 9, 2136.

70. "Porous nanofilm biomaterials via templated layer-by-layer assembly", C. Wu, S. Aslan, A. Gand, J. Wolenski, E. Pauthe, and P. R. Van Tassel, *Advanced Functional Materials*, **2013**, 23, 66.

69. "Carbon nanotube based antimicrobial biomaterials formed via layer-by-layer assembly with polypeptides", S. Aslan, M. Deneufchatel, S. Hashmi, N. Li, L. D. Pfefferle, M. Elimelech, E. Pauthe, and P. R. Van Tassel, *Journal of Colloid and Interface Science*, **2012**, 388, 268.

68. "Polyelectrolyte adsorption and layer-by-layer assembly: electrochemical control", P. R. Van Tassel, *Current Opinion in Colloid and Interface Science*, **2012**, 17, 106-113.

- 67.** “Molecular recognition effects in atomistic models of imprinted polymers”, E. M. A. Dourado, C. Herdes, P. R. Van Tassel, and L. Sarkisov, *International Journal of Molecular Science*, **2011**, 12, 4781.
- 66.** “Nanofilm biomaterials: localized cross-linking to optimize mechanical rigidity and bioactivity”, J. A. Phelps, M. Hindie, M.-C. Degat, E. Pauthe, and P. R. Van Tassel, *Langmuir*, **2011**, 27, 1123.
- 65.** “Pre-osteoblasts on poly(L-lactic acid) and silicon oxide: influence of fibronectin and albumin adsorption”, M. Hindie, M.-C. Degat, F. Gaudiere, O. Gallet, P. R. Van Tassel, and E. Pauthe, *Acta Biomaterialia*, **2011**, 7, 387.
- 64.** “Antimicrobial biomaterials based on carbon nanotubes dispersed in poly(lactic-co-glycolic acid)”, S. Aslan, C. Zoican Loebick, S. Kang, M. Elimelech, L. D. Pfefferle, and P. R. Van Tassel, **2010**, *Nanoscale*, 2, 1789.
- 63.** “Biodegradable poly(lactide-co-glycolide) nanoparticle assembly for continuous release of bioactive agents from medical devices”, C. T. Lo, P. R. Van Tassel, and W. M. Saltzman, **2010**, *Biomaterials*, 31, 3631.
- 62.** “Influence of charged nanoparticles on colloidal forces: a molecular simulation study”, B. Fazelabdolabadi, J. Y. Walz, and P. R. Van Tassel, **2009**, *Journal of Physical Chemistry B*, 113, 13860.
- 61.** “Simultaneous release of multiple molecules from poly(lactide-co-glycolide) nanoparticles assembled onto medical devices”, C. T. Lo, P. R. Van Tassel, and W. M. Saltzman, **2009**, *Biomaterials*, 30, 4889.
- 60.** “Polyelectrolyte adsorption kinetics under an applied electric potential: strongly versus weakly charged polymers”, C. Olsen and P. R. Van Tassel, **2009**, *Journal of Colloid and Interface Science*, 329, 222.
- 59.** “Multilayer nanofilms as substrates for hepatocellular applications”, C. R. Wittmer, J. A. Phelps, C. M. Lepus, W. M. Saltzman, M. J. Harding, and P. R. Van Tassel, **2008**, *Biomaterials*, 29, 4082.
- 58.** “Theories of molecular fluids confined in disordered porous materials”, L. Sarkisov and P. R. Van Tassel, **2008**, *Journal of Physics Condensed Matter*, 20, 333101.
- 57.** “Integral equation theory of adsorption in templated materials: influence of molecular attraction”, L. Sarkisov and P. R. Van Tassel, **2007**, *Journal of Physical Chemistry C*, 111, 15726.

- 56.** “Continuous polyelectrolyte adsorption under an applied electric potential”, A. P. Ngankam and P. R. Van Tassel, *Proceedings of the National Academy of Sciences of the USA*, **2007**, 104, 1140.
- 55.** “Fibronectin terminated multilayer films: protein adsorption and cell attachment studies”, C. R. Wittmer, J. A. Phelps, W. M. Saltzman, and P. R. Van Tassel, *Biomaterials*, **2007**, 28, 851.
- 54.** “Protein adsorption kinetics: influence of substrate electric potential”, P. R. Van Tassel, *Proteins at Solid-Liquid Interfaces* (Springer-Verlag), **2006**, 1.
- 53.** “Structuring of macro-ions confined between like-charged surfaces”, A. Tulpar, P. R. Van Tassel, and J. Y. Walz, **2006**, *Langmuir*, 22, 2876.
- 52.** “Replica Ornstein-Zernike theory of adsorption in a templated porous material: interaction site systems”, L. Sarkisov and P. R. Van Tassel, **2005**, *Journal of Chemical Physics*, 123, 164706.
- 51.** “Adsorbed layers of oriented fibronectin: a strategy to control surface-cell interactions”, C. Calonder, H. W. T. Matthew, and P. R. Van Tassel, **2005**, *Journal of Biomedical Materials Research A*, 75, 316.
- 50.** “In-situ layer-by-layer film formation kinetics under an applied voltage measured by optical waveguide lightmode spectroscopy”, **2005**, A. P. Ngankam and P. R. Van Tassel, *Langmuir*, 21, 5865.
- 49.** “Probing adsorbed fibronectin layer structure by kinetic analysis of monoclonal antibody binding”, C. R. Wittmer and P. R. Van Tassel, **2005**, *Colloids and Surfaces B*, 41, 103.
- 48.** “Conformational transition free energy profiles of an adsorbed, lattice model protein by multicanonical Monte Carlo simulation”, V. Castells and P. R. Van Tassel, **2005**, *Journal of Chemical Physics*, 122, 084707.
- 47.** “Probing macromolecular adsorbed layer structure via the interfacial cavity function”, Y. Tie, A. P. Ngankam, and P. R. Van Tassel, **2004**, *Langmuir*, 20, 10599.
- 46.** “Fibronectin adsorption onto polyelectrolyte multilayer films”, A. P. Ngankam, G. Mao, and P. R. Van Tassel, **2004**, *Langmuir*, 20, 3362.
- 45.** “Protein adsorption kinetics under an applied electric field”, P. R. Van Tassel, **2004**, *Encyclopedia of Nanoscience and Nanotechnology* (Dekker), 14126.

44. “Statistical mechanical modeling of protein adsorption”, P. R. Van Tassel, **2003**, *Materialwissenschaft Und Werkstofftechnik*, 34, 1129.
43. “Protein adsorption: kinetics and history dependence” (invited feature article), Y. Tie, C. Calonder, and P. R. Van Tassel, **2003**, *Journal of Colloid and Interface Science*, 268, 1.
42. “Biomolecules at interfaces”, P. R. Van Tassel, **2003**, *Encyclopedia of Polymer Science and Technology*, 3rd Edition (Wiley), 5, 285.
41. “Protein adsorption under an applied electric field: an optical waveguide lightmode spectroscopy study”, M. A. Brusatori, Y. Tie, and P. R. Van Tassel, **2003**, *Langmuir*, 19, 5089.
40. “Biosensing under an applied voltage using optical waveguide lightmode spectroscopy”, M. A. Brusatori and P. R. Van Tassel, **2003**, *Biosensors and Bioelectronics*, 18, 1269.
39. “Surface-induced conformational change in lattice model proteins by Monte Carlo simulation”, V. Castells, S. Yang, and P. R. Van Tassel, **2002**, *Physical Review E*, 65, 031912.
38. “Adsorption in disordered microporous materials: theoretical analysis”, **2002**, *Encyclopedia of Colloid and Surface Science* (Marcel Dekker), 204.
37. “Effect of templated quenched disorder on fluid phase equilibrium”, L. Zhang and P. R. Van Tassel, **2001**, *Physical Review E*, 64, 042101.
36. “History dependence of protein adsorption”, C. Calonder, Y. Tie, and P. R. Van Tassel, **2001**. *Proceedings of the National Academy of Sciences of the USA*, 98, 10664.
35. “Kinetic regimes of protein adsorption”, C. Calonder and P. R. Van Tassel, **2001**, *Langmuir*, 17, 4392.
34. “Theory and simulation of the available volume for adsorption in a chain molecule templated porous material”, S. Cheng and P. R. Van Tassel, **2001**, *Journal of Chemical Physics*, **2001**, 114, 4974.
33. “Configurational effects of templating on the adsorption isotherms of templated porous materials”, L. Zhang and P. R. Van Tassel, **2000**, *Molecular Physics*, 98, 1521.
32. “From car parking to protein adsorption: an overview of sequential adsorption processes”, J. Talbot, G. Tarjus, P. R. Van Tassel, and P. Viot, **2000**, *Colloids and Surfaces A*, 165, 287.

- 31.** “Theory and simulation of adsorption in a templated porous material: hard sphere systems”, L. Zhang and P. R. Van Tassel, **2000**, *Journal of Chemical Physics*, 112, 3006.
- 30.** “Enhanced saturation coverage in adsorption-desorption processes”, P. R. Van Tassel, P. Viot, G. Tarjus, J. J. Ramsden, and J. Talbot, **2000**, *Journal of Chemical Physics*, 112, 1483.
- 29.** “A kinetic model of protein adsorption/surface-induced transition kinetics evaluated by the scaled particle theory”, M. A. Brusatori and P. R. Van Tassel, **1999**, *Journal of Colloid and Interface Science*, 219, 333.
- 28.** “Theoretical model of adsorption in a templated porous material”, P. R. Van Tassel, **1999**, *Physical Review E*, 60, R25.
- 27.** “Theoretical and experimental studies of protein adsorption kinetics”, M. Brusatori, S. Yang, P. R. Van Tassel, J. Talbot, P. Viot, and G. Tarjus, **1998**, *Fundamentals of Adsorption 6*, (F. Meunier, Ed.), 485.
- 26.** “An exactly solvable kinetic model of multilayer macromolecular adsorption”, P. R. Van Tassel and P. Viot, **1998**, *Fundamentals of Adsorption 6*, (F. Meunier, Ed.), 1237.
- 25.** “A particle-level model of irreversible protein adsorption with a post-adsorption transition”, P. R. Van Tassel, L. Guemouri, J. J. Ramsden, G. Tarjus, P. Viot, and J. Talbot, **1998**, *Journal of Colloid and Interface Science*, 207, 317.
- 24.** “Generalized model of irreversible multilayer adsorption”, S. Yang, P. Viot, and P. R. Van Tassel, **1998**, *Physical Review E*, 58, 3324.
- 23.** “Nearest-neighbor functions in a one-dimensional generalized ballistic deposition model”, P. Viot, P. R. Van Tassel, and J. Talbot, **1998**, *Physical Review E*, 57, 1661.
- 22.** “Theoretical studies of the available volume for adsorption in a random quenched and depleted medium”, P. R. Van Tassel, **1997**, *Journal of Chemical Physics*, 107, 9530.
- 21.** “An exactly solvable continuum model of multilayer irreversible adsorption”, P. R. Van Tassel and P. Viot, **1997**, *Europhysics Letters*, 40, 293.
- 20.** “A distribution function analysis of the structure of depleted particle configurations”, P. R. Van Tassel, J. Talbot, P. Viot, and G. Tarjus, **1997**, *Physical Review E*, 56, R1299.
- 19.** “A kinetic model of partially reversible protein adsorption”, P. R. Van Tassel, P. Viot, and G. Tarjus, **1997**, *Journal of Chemical Physics*, 106, 761.

18. "Control of protein adsorption in capillary electrophoresis via an irreversibly bound protein coating", P. R. Van Tassel, D. Miras, M. Leroy, A. Hagege, J.-C. Voegel, and P. Schaaf, **1996**, *Journal of Colloid and Interface Science*, 183, 269.
17. "Adsorption of binary mixtures in a zeolite micropore", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, **1996**, *Molecular Simulation*, 17, 239.
16. "Kinetics of irreversible adsorption with a particle conformational change: A density expansion approach", P. R. Van Tassel, J. Talbot, G. Tarjus, and P. Viot, **1996**, *Physical Review E*, 53, 785.
15. "Modeling sorption in zeolite NaA with molecular density functional theory", M. C. Mitchell, P. R. Van Tassel, A. V. McCormick, and H. T. Davis, **1995**, *Studies of Surface Science and Catalysis*, 98, 227.
14. "Adsorption and energetics of xenon in mordenite: A Monte Carlo simulation study", S. S. Nivarthi, P. R. Van Tassel, and A. V. McCormick, **1995**, *Journal of Chemical Physics*, 103, 3029.
13. "Monte Carlo simulation of xenon adsorption with dealumination of an idealized mordenite structure", S. S. Nivarthi, P. R. Van Tassel, H. T. Davis, and A. V. McCormick, **1995**, *Zeolites*, 15, 40.
12. "Irreversible adsorption of macromolecules at a liquid-solid interface: Theoretical studies of conformational change", P. R. Van Tassel, P. Viot, G. Tarjus, and J. Talbot, **1994**, *Journal of Chemical Physics*, 101, 7064.
11. "Exactly solvable models of irreversible adsorption with particle spreading", D. Boyer, J. Talbot, G. Tarjus, P. Van Tassel, and P. Viot, **1994**, *Physical Review E*, 49, 5525.
10. "Lattice model and simulation of dynamics of adsorbate motion in zeolites", P. R. Van Tassel, S. A. Somers, H. T. Davis, and A. V. McCormick, **1994**, *Chemical Engineering Science*, 49, 2979.
9. "A new lattice model for adsorption of small molecules in zeolite micropores", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, **1994**, *American Institute of Chemical Engineers Journal*, 40, 925.
8. "Adsorption simulations of small molecules and their mixtures in a zeolite micropore", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, **1994**, *Langmuir*, 10, 1257.

7. "Zeolite adsorption site location and shape shown by simulated isodensity surfaces", P. R. Van Tassel, J. C. Phillips, H. T. Davis, and A. V. McCormick, **1993**, *Journal of Molecular Graphics*, 11, 180.
6. "Open-system Monte Carlo simulations of Xe in NaA", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, **1993**, *Journal of Chemical Physics*, 98, 8919.
5. "A dynamic Monte Carlo simulation of sorbate mobility in zeolites: The effects of molecular crowding on sorbate mobility", P. R. Van Tassel, I. Tantra, H. T. Davis, and A. V. McCormick, **1993**, *Materials Research Society Symposium Proceedings*, 290, 147.
4. "Self-assembly of xenon atoms in a NaA alpha cage", P. R. Van Tassel, C. Hall, H. T. Davis, and A. V. McCormick, **1992**, *Pure and Applied Chemistry*, 64, 1629.
3. "Monte Carlo calculations of Xe arrangement and energetics in the NaA alpha cage", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, **1992**, *Molecular Physics*, 76, 411.
2. "Monte Carlo calculations of adsorbate placement and thermodynamics in a micropore: Xe in NaA", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, **1991**, *Molecular Physics*, 73, 1107.
1. "Soft-tipped coronary artery catheters reduce the frequency of coronary artery dissection", P. Van Tassel, I.F. Goldenberg, W. Pedersen, K. Madison, C. Madison, D. Streitz, M. Walker, S.K. Roeller, S.M. Tadavarthy, P.D. Murray, J.E. Finstad, T.J. Koelz, M. Samii, J.D. Madison, M.R. Pritzker, F.L. Gobel, and R.A. Van Tassel, **1989**, *American Journal of Cardiology*, 64, 1199.

Papers presented at professional meetings:

109. "Interactions among highly charged macromolecules: from biology to nanotechnology," P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting (Area 1A Keynote Address), **11/14**, Atlanta, GA.
108. "Counter-ion mediated polyelectrolyte interactions: simulation and theory," M. T. Sammalkorpi, H. Antila, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/14**, Atlanta, GA.
107. "Nanotemplated polyelectrolyte films as porous biomolecular delivery systems," A. Gand, M. Hindie, D. Chacon, E. Pauthe, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/14**, Atlanta, GA.
106. "Porous nanofilm biomaterials: biomolecular adsorption and cellular response", C. Wu, S. Aslan, A. Gand, J. S. Wolenski, E. Pauthe, and P. R. Van Tassel, International Conference on Bioinspired and Zwitterionic Materials, **12/13**, Hangzhou, China.

- 105.** “Polyelectrolyte interactions: theory and simulation”, M. T. Sammalkorpi, H. Antila, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/13**, San Francisco, CA.
- 104.** “Porous nanofilm biomaterials: biomolecular adsorption and cellular response”, C. Wu, S. Aslan, A. Gand, J. S. Wolenski, E. Pauthe, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/13**, San Francisco, CA.
- 103.** “Carbon nanotube-based antimicrobial biomaterials formed via layer-by-layer assembly with polypeptides”, S. Aslan, J. Maata, M. Deneufchatel, S. Hashmi, N. Li, L. D. Pfefferle, M. Elimelech, M. Sammalkorpi, E. Pauthe, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **10/12**, Pittsburgh, PA.
- 102.** “Polyelectrolyte interactions at a conducting interface: a simulation study”, M. T. Sammalkorpi and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **10/12**, Pittsburgh, PA.
- 101.** “Porous nanofilm biomaterials: biomolecular adsorption and cellular adhesion”, C. Wu, S. Aslan, A. Gand, J. S. Wolenski, E. Pauthe, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **10/12**, Pittsburgh, PA.
- 100.** “Polyelectrolyte interactions at a conducting interface: a simulation study”, M. T. Sammalkorpi and P. R. Van Tassel, International Symposium on Polyelectrolytes, Lausanne, Switzerland, **7/12**.
- 99.** “Polyelectrolyte nanofilm biomaterials: optimizing mechanical rigidity and bioactivity”, US-Poland Workshop on “Interfacial Phenomena at the Nanoscale: Fluids and Soft Matter”, Poznan, Poland, **6/12**.
- 98.** “Antimicrobial biomaterials based on single walled carbon nanotubes and charged polymers”, S. Aslan, N. Li, M. Hindie, S. Hashmi, L. D. Pfefferle, M. Elimelech, E. Pauthe, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **10/11**, Minneapolis, MN.
- 97.** “Influence of finite size in charge reversal of polyelectrolytes: a simulation study”, M. Sammalkorpi and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **10/11**, Minneapolis, MN.
- 96.** “Polyelectrolyte adsorption kinetics under an applied potential using optical waveguide lightmode spectroscopy”, International Chemical Conference of the Pacific Basin Societies (Pacifichem), Honolulu, HA, **12/10**.

- 95.** “Intermolecular forces between adsorbed polyelectrolytes: a simulation study”, M. Sammalkorpi and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/10**, Salt Lake City, UT.
- 94.** “Carbon nanotube incorporated polymer films as antimicrobial materials”, S. Aslan and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/10**, Salt Lake City, UT.
- 93.** “Nanofilm biomaterials: mechanical rigidity and bioactivity”, J. A. Phelps, E. Pauthe, and P. R. Van Tassel, American Chemical Society Meeting, **3/10**, San Francisco, CA.
- 92.** “Osteoblast-biomaterial interactions: influence of adsorbed protein”, F. Gaudiere, M.-C. Degat, M. Hindie, O. Gallet, P. R. Van Tassel, and E. Pauthe, American Chemical Society Meeting, **3/10**, San Francisco, CA.
- 91.** “Osteoblast adhesion and activity on biomaterial surfaces: influence of adsorbed protein”, M. Hindie, F. Gaudiere, M.-C. Degat, O. Gallet, P. R. Van Tassel, and E. Pauthe, American Institute of Chemical Engineers Annual Meeting, **11/09**, Nashville, TN.
- 90.** “Single-walled carbon nanotubes as antimicrobial biomaterials”, S. Aslan, S. Kang, C. Zoican Loebick, M. Elimelech, L. D. Pfefferle, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/09**, Nashville, TN.
- 89.** “Nanofilm biomaterials: mechanical rigidity and bioactivity”, J. A. Phelps, E. Pauthe, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/09**, Nashville, TN.
- 88.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, C. Olsen, C. VanLang, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/08**, Philadelphia, PA.
- 87.** “Chemical cross-linking of select polyelectrolyte nanofilms to control mechanical properties for use in cell contacting application”, J. A. Phelps and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/08**, Philadelphia, PA.
- 86.** “Controlling mechanical and cell contacting properties of polyelectrolyte nanofilms by chemical cross-linking”, J. A. Phelps and P. R. Van Tassel, 82nd American Chemical Society Colloid and Surface Science Symposium, **6/08**, Raleigh, NC.
- 85.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, A. P. Ngankam, C. VanLang, C. Olsen, and P. R. Van Tassel, 82nd American Chemical Society Colloid and Surface Science Symposium, **6/08**, Raleigh, NC.

- 84.** “Chemical cross-linking of polyelectrolyte nanofilms to control mechanical properties and cell adhesion”, J. A. Phelps and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/07**, Salt Lake City, UT.
- 83.** “Polyelectrolyte nanofilms for cell contacting applications”, J. A. Phelps, C. R. Wittmer, W. M. Saltzman, M. J. Harding, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/07**, Salt Lake City, UT.
- 82.** “Protein-polyelectrolyte nanofilm assembly under an applied electric potential”, Gordon Research Conference on Organic Thin Films, **5/07**, Aussois, France.
- 81.** “Polyelectrolyte multilayer films for cell contacting applications”, J. A. Phelps, C. R. Wittmer, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/06**, San Francisco, CA.
- 80.** “Continuous polypeptide adsorption under an applied electric potential”, A. P. Ngankam and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/06**, San Francisco, CA.
- 79.** “Computer simulation of adsorption in templated molecular recognition materials, L. Sarkisov and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/06**, San Francisco, CA.
- 78.** “Computer simulation of fluids confined in imprinted porous structures”, L. Sarkisov and P. R. Van Tassel, 7th Liblice Conference on the Statistical Mechanics of Liquids, **6/06**, Lednice, Czech Republic.
- 77.** “Fibronectin / polyelectrolyte multilayer assemblies: film formation and cell attachment studies”, C. R. Wittmer, W. M. Saltzman, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/05**, Cincinnati, OH.
- 76.** “Adsorption and molecular recognition in templated porous materials: theory and computer simulation”, L. Sarkisov and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/05**, Cincinnati, OH.
- 75.** “Structuring of nanoparticles confined between surfaces”, A. Tulpar, P. R. Van Tassel, and J. Y. Walz, American Institute of Chemical Engineers Annual Meeting, **11/05**, Cincinnati, OH.
- 74.** “Monte Carlo simulation of molecular adsorption”, P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/05**, Cincinnati, OH.

- 73.** “Continuous polyelectrolyte nanofilm growth under an applied electric potential”, A. P. Ngankam and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/05**, Cincinnati, OH.
- 72.** “Layer-by-layer film formation kinetics under an applied voltage measured by optical waveguide lightmode spectroscopy”, A. P. Ngankam and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/05**, Cincinnati, OH.
- 71.** “Fibronectin / polyelectrolyte multilayer assemblies: film formation and cell attachment studies”, C. R. Wittmer, W. M. Saltzman, and P. R. Van Tassel, American Chemical Society Meeting, **8/05**, Washington, DC.
- 70.** “Continuous polyelectrolyte nanofilm growth under an applied electric potential”, A. P. Ngankam and P. R. Van Tassel, 79th American Chemical Society Colloid and Surface Science Symposium, **6/05**, Potsdam, NY.
- 69.** “In situ layer-by-layer film formation kinetics under an applied voltage measured by optical waveguide lightmode spectroscopy”, A. P. Ngankam and P. R. Van Tassel, 79th American Chemical Society Colloid and Surface Science Symposium, **6/05**, Potsdam, NY.
- 68.** “Fibronectin / polyelectrolyte multilayer assemblies: film formation and cell attachment studies”, C. R. Wittmer and P. R. Van Tassel, 79th American Chemical Society Colloid and Surface Science Symposium, **6/05**, Potsdam, NY.
- 67.** “In situ layer-by-layer film formation kinetics under an applied electric field measured by optical waveguide lightmode spectroscopy”, A. P. Ngankam and P. R. Van Tassel, American Chemical Society Meeting, **3/05**, San Diego, CA.
- 66.** “Fibronectin/polyelectrolyte multilayer assemblies: film formation and cell attachment studies”, C. R. Wittmer and P. R. Van Tassel, American Chemical Society Meeting, **3/05**, San Diego, CA.
- 65.** “Fibronectin/polyelectrolyte multilayered assemblies: film formation and cell attachment studies”, C. R. Wittmer and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/04**, Austin, TX.
- 64.** “Adsorption and molecular recognition in templated porous materials: theory and computer simulation”, L. Sarkisov and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/04**, Austin, TX.
- 63.** “Polyelectrolyte multilayer formation kinetics under an applied electric field measured by optical waveguide lightmode spectroscopy (OWLS)”, P. R. Van Tassel, A.

P. Ngankam, American Institute of Chemical Engineers Annual Meeting, **11/04**, Austin, TX.

62. “Probing bio-interfacial structure by the kinetic analysis of monoclonal antibody binding”, C. Wittmer and P. Van Tassel, 78th American Chemical Society Colloid and Surface Science Symposium, **6/04**, New Haven, CT.

61. “Interfacial crystal nucleation and growth kinetics by optical waveguide lightmode spectroscopy and atomic force microscopy”, A. P. Ngankam, G. Mao, and P. R. Van Tassel, 78th American Chemical Society Colloid and Surface Science Symposium, **6/04**, New Haven, CT.

60. “Fibronectin adsorption to polyelectrolyte multilayer films”, A. P. Ngankam, G. Mao, and P. R. Van Tassel, 78th American Chemical Society Colloid and Surface Science Symposium, **6/04**, New Haven, CT.

59. “Protein adsorption: kinetics and history dependence”, P. R. Van Tassel, American Chemical Society Meeting, **4/04**, Anaheim, CA.

58. “Protein adsorption to polyelectrolyte multilayer films”, A. P. Ngankam, G. Mao, and P. R. Van Tassel, American Chemical Society Meeting, **4/04**, Anaheim, CA.

57. “Adsorption of fibronectin onto polyelectrolyte multilayer films”, A. P. Ngankam, G. Mao, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/03**, San Francisco, CA.

56. “Probing bio-interfacial structure by kinetic analysis of monoclonal antibody binding”, C. R. Wittmer and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/03**, San Francisco, CA.

55. “Protein adsorption kinetics: effects of ionic strength”, Y. Tie and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/03**, San Francisco, CA.

54. “Interfacial crystal nucleation and growth kinetics of calcium phosphate salts by optical waveguide lightmode spectroscopy”, A. P. Ngankam, G. Mao, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/03**, San Francisco, CA.

53. “Adsorption of fibronectin onto polyelectrolyte multilayers”, A. P. Ngankam, G. Mao, and P. R. Van Tassel, American Chemical Society Meeting, **4/03**, New Orleans, LA.

- 52.** "Biosensing under an applied voltage by optical waveguide lightmode spectroscopy", M. A. Brusatori and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/02**, Indianapolis, IN.
- 51.** "Adsorption of fibronectin on polyelectrolyte multilayers", A. P. Ngankam, G. Mao, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/02**, Indianapolis, IN.
- 50.** "Surface-induced conformational changes in lattice model proteins by Monte Carlo simulation", V. Castells and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/02**, Indianapolis, IN.
- 49.** "Protein adsorption and desorption kinetics: effects of adlayer history", Y. Tie, C. V. Irish, G. Mao, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/02**, Indianapolis, IN.
- 48.** "Statistical mechanical modeling of protein adsorption", P. R. Van Tassel, 5th International Essen Symposium on Biomaterials, **10/02**, Essen, Germany.
- 47.** "Surface-induced conformational changes in lattice model proteins by Monte Carlo simulation", V. Castells and P. R. Van Tassel, 76th American Chemical Society Colloid and Surface Science Symposium, **6/02**, Ann Arbor, MI.
- 46.** "Protein adsorption kinetics under an applied electric field by optical waveguide lightmode spectroscopy", M. A. Brusatori and P. R. Van Tassel, 76th American Chemical Society Colloid and Surface Science Symposium, **6/02**, Ann Arbor, MI.
- 45.** "Interfacial crystal nucleation and growth kinetics by optical waveguide lightmode spectroscopy", A. P. Ngankam, G. Mao, and P. R. Van Tassel, 76th American Chemical Society Colloid and Surface Science Symposium, **6/02**, Ann Arbor, MI.
- 44.** "Clustering of adsorbed proteins measured by optical waveguide lightmode spectroscopy and atomic force microscopy", C. V. Irish, Y. Tie, G. Mao, and P. R. Van Tassel, 76th American Chemical Society Colloid and Surface Science Symposium, **6/02**, Ann Arbor, MI.
- 43.** "History dependence of protein kinetics", C. Calonder, Y. Tie, C. V. Irish, G. Mao, and P. R. Van Tassel, American Chemical Society Meeting, **4/02**, Orlando, FL.
- 42.** "History dependence of protein kinetics", P. R. Van Tassel, Intl. Meeting on Particles and Polymers Near Interfaces: Fundamentals and Applications, **3/02**, Leiden, Netherlands.

- 41.** "Theory and simulation of adsorbate phase behavior in a templated porous material", S. Cheng and P. R. Van Tassel, American Physical Society Meeting, **3/02**, Indianapolis, IN.
- 40.** "History dependence of protein kinetics", C. Calonder, Y. Tie, C. V. Irish, G. Mao, and P. R. Van Tassel, American Physical Society Meeting, **3/02**, Indianapolis, IN.
- 39.** "Surface-induced conformational changes in lattice model proteins by Monte Carlo simulation", V. Castells and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/01**, Reno, NV.
- 38.** "Clustering of adsorbed proteins measured by optical waveguide lightmode spectroscopy and atomic force microscopy", C. Irish, Y. Tie, C. Calonder, G. Mao, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/01**, Reno, NV.
- 37.** "Theory and simulation of adsorbate phase behavior in a templated porous material", S. Cheng and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/01**, Reno, NV.
- 36.** "History dependence of protein adsorption kinetics", C. Calonder, Y. Tie, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/01**, Reno, NV.
- 35.** "Deposition of particles at the liquid-solid interface", P. R. Van Tassel, International Conference on Discrete Simulation of Fluid Dynamics, **7/01**, Cargese, France.
- 34.** "Surface-induced conformational changes in lattice model proteins by Monte Carlo simulation", V. Castells and P. R. Van Tassel, Midwest Thermodynamics and Statistical Mechanics Meeting, **5/01**, East Lansing, MI.
- 33.** "Phase behavior of a fluid in a templated porous material", L. Zhang, S. Cheng, and P. R. Van Tassel, Midwest Thermodynamics and Statistical Mechanics Meeting, **5/01**, East Lansing, MI.
- 32.** "Theory and simulation of fluids adsorbed in a templated porous material", L. Zhang, S. Cheng, and Paul R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/00**, Los Angeles, CA.
- 31.** "Protein adsorption onto biomaterials: experimental strategies and theoretical modeling", C. Calonder, M. A. Brusatori, C. V. Irish, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/00**, Los Angeles, CA.

- 30.** "Optical biosensing and optical microscopy studies of protein monolayer coated biomaterials and their interactions with cells", C. Calonder, H. W. T. Matthew, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/00**, Los Angeles, CA.
- 31.** "Protein adsorption kinetics: particle model and optical waveguide experiment", C. Calonder, M. A. Brusatori, C. V. Irish, and P. R. Van Tassel, 74th American Chemical Society Colloid and Surface Science Symposium, **6/00**, Bethlehem, PA.
- 30.** "Theory and simulation of adsorption in a templated porous material", L. Zhang and P. R. Van Tassel, Midwest Thermodynamics and Statistical Mechanics Meeting, **5/00**, Minneapolis, MN.
- 29.** "Protein adsorption kinetics: particle model and optical experiment", M. A. Brusatori, P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/99**, Dallas, TX.
- 28.** "Theory and simulation of adsorption in a templated porous material", L. Zhang and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/99**, Dallas, TX.
- 27.** "Surface-induced conformational change of and adsorbed protein: particle model and computer simulation", V. Castells and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/99**, Dallas, TX.
- 26.** "Protein adsorption kinetics: particle model and optical experiment", M. A. Brusatori, C. Calonder, P. R. Van Tassel, International Symposium of the American Vacuum Society , **10/99**, Seattle, WA.
- 25.** "Protein Adsorption With Surface-Induced Transition: Particle Model And Optical Experiment", P. R. Van Tassel, CECAM Workshop: Molecular modeling of proteins at interfaces, **9/99**, Lyon, France.
- 24.** "Theoretical and experimental studies of protein adsorption kinetics", M. A. Brusatori and P. R. Van Tassel, 73rd American Chemical Society Colloid and Surface Science Symposium, **6/99**, Cambridge, MA.
- 23.** "Statistical mechanics of multilayer adsorption", S. Yang and P. R. Van Tassel, Midwestern Thermodynamics and Statistical Mechanics Meeting, **5/99**, Detroit, MI.
- 22.** "Protein adsorption kinetics: theory and experiment", M. Brusatori and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/98**, Miami, FL.

- 21.** "Adsorption in a quenched and depleted disordered medium", L. Zhang and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/98**, Miami, FL.
- 20.** "Theoretical and experimental studies of protein adsorption kinetics", M. Brusatori, S. Yang, P. R. Van Tassel, J. Talbot, P. Viot, and G. Tarjus, Fundamentals of Adsorption International Meeting, **5/98**, Presqu'île de Giens, France.
- 19.** "Thermodynamics of adsorption in a quenched and depleted disordered medium", L. Zhang and P. R. Van Tassel, Midwest Thermodynamics and Statistical Mechanics Meeting, **5/98**, Notre Dame, IN.
- 18.** "Kinetic studies of protein adsorption onto metal-oxide surfaces", M. Brusatori, S. Yang, and P. R. Van Tassel, American Institute of Chemical Engineers Annual Meeting, **11/97**, Los Angeles, CA.
- 17.** "An exactly solvable kinetic model of multilayer macromolecular adsorption", S. Yang, P. R. Van Tassel, and P. Viot, American Institute of Chemical Engineers Annual Meeting, **11/97**, Los Angeles, CA.
- 16.** "Kinetic models of partially reversible adsorption with conformational change", P. R. Van Tassel, J. Talbot, P. Viot, and G. Tarjus, 1st International Symposium on Ordered Proteins at Interfaces, **8/97**, Seattle, WA.
- 15.** "The geometry of adsorption: particle spreading and conformational change", P. R. Van Tassel, J. Talbot, P. Viot, and G. Tarjus, 2nd International Workshop of Molecular Recognition at Interfaces, **7/97**, Basel, Switzerland.
- 14.** "Kinetics of partially reversible protein adsorption", P. R. Van Tassel, 71st American Chemical Society Colloid and Surface Science Symposium, **6/97**, Newark, DE.
- 13.** "A theoretical study of the void volume of a random quenched and depleted medium", P. R. Van Tassel, Midwest Thermodynamics and Statistical Mechanics Meeting, **5/97**, Williams Bay, WI.
- 12.** "A kinetic model of partially reversible protein adsorption", P. R. Van Tassel, P. Viot, G. Tarjus, and J. Talbot, American Institute of Chemical Engineers Annual Meeting, **11/96**, Chicago, IL.
- 11.** "Protein adsorption kinetics at liquid-solid interfaces: Simulation and statistical mechanics", P. R. Van Tassel, P. Viot, G. Tarjus, and J. Talbot, American Institute of Chemical Engineers Annual Meeting, **11/95**, Miami, FL.

- 10.** "Effects of protein adsorption on the chiral separation of biomolecules in capillary electrophoresis", P. R. Van Tassel, A. Hagege, J.-C. Voegel, D. Miras, and M. Leroy, American Institute of Chemical Engineers Annual Meeting, **11/95**, Miami, FL.
- 9.** "Mixture adsorption in zeolite micropores", P. R. Van Tassel, CECAM Workshop: Adsorption, phase transitions, and transport in porous materials, **9/95**, Lyon, France.
- 8.** "The effects of conformational changes on the adsorption of biomolecules at liquid-solid interfaces", P. R. Van Tassel, P. Viot, G. Tarjus, and J. Talbot, American Institute of Chemical Engineers Annual Meeting, **11/94**, San Francisco, CA.
- 7.** "Random sequential adsorption of particles undergoing surface induced conformational change", P. R. Van Tassel, P. Viot, G. Tarjus, and J. Talbot, Workshop on Application of the Random Sequential Adsorption Method, **6/94**, Basil, Switzerland.
- 6.** "Adsorption simulations of small molecules and their mixtures in zeolite micropores", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, American Institute of Chemical Engineers Annual Meeting, **11/93**, St. Louis, MO.
- 5.** "Monte Carlo simulations in the development and evaluation of zeolite adsorption and diffusion models", P. R. Van Tassel, S. S. Nivarthi, I. Tantra, C. D. Hall, H. T. Davis, and A. V. McCormick, Materials Research Society Meeting, **12/92**, Boston, MA.
- 4.** "Monte Carlo simulations in the development and evaluation of zeolite adsorption and diffusion models", P. R. Van Tassel, S. S. Nivarthi, C. D. Hall, H. T. Davis, and A. V. McCormick, American Institute of Chemical Engineers Annual Meeting, **11/92**, Miami, FL.
- 3.** "A new model isotherm derived from Monte Carlo simulations of Xe in NaA", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, International Zeolite Conference, **7/92**, Montreal, Quebec.
- 2.** "Molecular simulation of adsorbate placement and thermodynamics in a micropore: Xe in NaA", P. R. Van Tassel, S. A. Somers, H. T. Davis, and A. V. McCormick, American Institute of Chemical Engineers Annual Meeting, **11/91**, Los Angeles, CA.
- 1.** "Simulation of the adsorption of xenon in a zeolite alpha cage via the canonical Monte Carlo method", P. R. Van Tassel, H. T. Davis, and A. V. McCormick, American Institute of Chemical Engineers Annual Meeting, **11/90**, Chicago, IL.

Invited Lectures:

- 58.** “Interactions among highly charged macromolecules: from biology to nanotechnology,” American Institute of Chemical Engineers Annual Meeting (Area 1A Keynote Address), Atlanta, GA, **11/14**.
- 57.** “Porous nanofilm biomaterials: biomolecular adsorption and cellular response”, C. Wu, S. Aslan, A. Gand, J. S. Wolenski, E. Pauthe, and P. R. Van Tassel, International Conference on Bioinspired and Zwitterionic Materials, Hangzhou, China, **12/13**.
- 56.** “Biomacromolecules at the electrified interface,” Dept. of Chemical and Biological Engineering, Zhejiang University, **6/13**.
- 55.** “Nanofilm biomaterials,” Dept. of Chemical and Biological Engineering, Zhejiang University, **6/13**.
- 54.** “Engineering the biomolecular interface,” Dept. of Chemical and Biological Engineering, Zhejiang University, **6/13**.
- 53.** “Nanofilm biomaterials,” Université de Cergy-Pontoise, Paris, **10/12**.
- 52.** “Polyelectrolyte nanofilm biomaterials: optimizing mechanical rigidity and bioactivity”, US-Poland Workshop on “Interfacial Phenomena at the Nanoscale: Fluids and Soft Matter”, Poznan, Poland, **6/12**.
- 51.** “Nanotechnology for medicine: thin film biomaterials”, Morse College, Yale University, New Haven, CT, **3/12**.
- 50.** “Polyelectrolyte nanofilm biomaterials: optimizing mechanical rigidity and bioactivity”, Dept. of Chemical, Materials, and Biomolecular Engineering, University of Connecticut, Storrs, CT, **2/12**.
- 49.** “Polyelectrolyte adsorption kinetics under an applied potential using optical waveguide lightmode spectroscopy”, International Chemical Conference of the Pacific Basin Societies (Pacifichem), Honolulu, HA, **12/10**.
- 48.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, University of Florida, Gainesville, FL, **9/10**.
- 47.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, University of Massachusetts, Amherst, MA, **4/10**.
- 46.** “Nanofilm biomaterials: mechanical rigidity and bioactivity”, American Chemical Society Meeting, San Francisco, CA, **3/10**.

- 45.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Physics, University of Louisville, KY, **9/09**.
- 44.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Laboratoire de Physique Théorique de la Matière Condensée, Université Pierre et Marie Curie, Paris, France, **5/09**.
- 43.** “Polyelectrolyte nanofilm assembly under an applied electric potential,” Yale Institute for Nanoscience and Quantum Engineering, Yale University, New Haven, CT, **10/08**.
- 42.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, State University of New York, Buffalo, NY, **11/07**.
- 41.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, University of Arizona, Tempe, AZ, **11/07**.
- 40.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, University of Washington, Seattle, WA, **10/07**.
- 39.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, Columbia University, New York, NY, **10/07**.
- 38.** “Polyelectrolyte nanofilm biomaterials,” Yale Institute for Nanoscience and Quantum Engineering, Yale University, New Haven, CT, **9/07**.
- 37.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, Tulane University, New Orleans, LA, **9/07**.
- 36.** “Polyelectrolyte adsorption kinetics under an applied electric potential”, Dept. of Chemical Engineering, Michigan State University, East Lansing, MI, **9/07**.
- 35.** “Protein-polyelectrolyte nanofilm assembly under an applied electric potential”, Gordon Research Conference on Organic Thin Films, Aussois, France, **5/07**.
- 34.** “Layer-by-layer film formation under an applied electric potential”, Université Louis Pasteur, Strasbourg, France, **3/06**.
- 33.** “Protein-polyelectrolyte multilayer assemblies”, The Dow Chemical Company, Midland, MI, **11/05**.
- 32.** “Monte Carlo simulation of molecular adsorption”, American Institute of Chemical Engineers Annual Meeting, Cincinnati, OH, **11/05**.

- 31.** "Fibronectin/polyelectrolyte multilayer assemblies: film formation and cell attachment studies", Universite Cergy-Pontoise, Cergy, France, **10/05**.
- 30.** "Fibronectin/polyelectrolyte multilayer assemblies: film formation and cell attachment studies", American Chemical Society Meeting, San Diego, CA, **3/05**.
- 29.** "Protein assembly onto multilayered films: a means to incorporate biological molecules into materials", Duke University, Durham, NC, **9/04**.
- 28.** "Multilayer protein assemblies as biomaterial coatings", Yale Interdisciplinary Biomaterials Group, New Haven, CT, **9/04**.
- 27.** "Protein adsorption: kinetics and history dependence", American Chemical Society Meeting, Anaheim, CA, **4/04**.
- 26.** "Protein adsorption: kinetics and history dependence", University of Rhode Island, Kingston, RI, **9/03**.
- 25.** "Surface-induced conformational changes in lattice model proteins by Monte Carlo simulation", New England Complex Fluids Workshop, New Haven, CT, **6/03**.
- 24.** "Protein adsorption under an applied electric field using optical waveguide lightmode spectroscopy", ETH-Zurich, Zurich, Switzerland, **5/03**.
- 23.** "Protein adsorption: kinetics and history dependence", TU Delft Mini-Symposium, Delft, Netherlands, **4/03**.
- 22.** "Adsorption of fibronectin onto polyelectrolyte multilayers", American Chemical Society Meeting, New Orleans, LA, **4/03**.
- 21.** "Statistical mechanical modeling of protein adsorption", 5th International Essen Symposium on Biomaterials, Essen, Germany, **10/02**.
- 20.** "History dependence of protein adsorption kinetics", Dept. of Chemical Engineering, University of Michigan, Ann Arbor, MI **10/02**.
- 19.** "History dependence of protein adsorption kinetics", Dept. of Chemical Engineering, University of Texas, Austin, TX, **10/02**.
- 18.** "History dependence of protein adsorption kinetics", American Chemical Society Meeting, Orlando, FL, **4/02**.

- 17.** "History dependence of protein adsorption kinetics", Intl. Meeting on Particles and Polymers Near Interfaces: Fundamentals and Applications, Leiden, Netherlands, **3/02**.
- 16.** "History dependence of protein adsorption kinetics", Dept. of Chemical Engineering, Yale University, New Haven, CT, **2/02**.
- 15.** "Biological and biomimetic structural incorporation onto and within synthetic materials", Dept. of Chemistry, University of Wyoming, Laramie, WY, **6/01**.
- 14.** "Biological and biomimetic structural incorporation onto and within synthetic materials", Dept. of Chemical Engineering, Vanderbilt University, Nashville, TN, **4/01**.
- 13.** "Protein adsorption onto biomaterials", Dept. of Chemical Engineering, Michigan State University, East Lansing, MI, **1/01**.
- 12.** "Protein adsorption onto biomaterials: theoretical models and experimental strategies", Dept. of Chemical Engineering, Columbia University, New York, NY, **9/00**.
- 11.** "Adsorption in a templated porous material", Dept. of Chemical Engineering, University of Rochester, Rochester, NY, **6/00**.
- 10.** "Protein adsorption onto biomaterials: theoretical models and experimental strategies", Dept. of Biomedical Engineering, University of Rochester, Rochester, NY, **3/00**.
- 9.** "Protein adsorption onto biomaterials: theoretical models and experimental strategies", Dept. of Chemical Engineering, Northwestern University, Evanston, IL, **2/00**.
- 8.** "Protein adsorption onto biomaterials: theoretical models and experimental strategies", Dept. of Chemistry, Purdue University, West Lafayette, IN, **2/00**.
- 7.** "Protein adsorption onto biomaterials: theoretical models and experimental strategies", Unilever, Inc., Port Sunlight, Great Britain, **2/00**.
- 6.** "Protein adsorption kinetics: theory and experiment", Laboratory for Physical Chemistry and Colloid Science, Delft University, The Netherlands, **3/99**.
- 5.** "Protein adsorption kinetics: theory and experiment", Laboratory for Physical Chemistry and Colloid Science, Wageningen University, The Netherlands, **3/99**.
- 4.** "Thermodynamics of adsorption in a quenched and depleted disordered medium", Midwestern Thermodynamics and Statistical Mechanics Meeting, Notre Dame, IN, **5/98**.

3. "Kinetic models of protein adsorption", Dept. of Chemistry, Wayne State University, Detroit, MI, **10/97**.
2. "The geometry of adsorption: particle spreading and conformational change", 2nd International Workshop of Molecular Recognition at Interfaces, Basel, Switzerland, **7/97**.
1. "Mixture adsorption in zeolite micropores", Dept. of Physical Chemistry, Université de Paris Sud, Orsay, France, **4/96**.

Industrial Collaborations:

Nu Angle Ltd, Cambridge, UK
Scientific Consultant

Tricardia, LLC, Minneapolis, MN
Scientific Consultant

Unilever, Inc., Port Sunlight, United Kingdom
Scientific Collaborator

IA, Inc., Ann Arbor, MI
Scientific Collaborator

Neomecs, Inc., Minneapolis, MN
Scientific Advisory Board

Questar, Inc., Minneapolis, MN
Scientific Advisory Board

Teaching:

Professor: Courses taught at Yale University:

Spring 15	CENG 416	Chemical Engineering Process Design
Fall 14	CENG 300	Chemical Engineering Thermodynamics
Fall 14	ENAS 500	Mathematical Methods I
Spring 14	CENG 416	Chemical Engineering Process Design
Spring 14	CENG 412	Chemical Engineering Laboratory and Design
Fall 13	ENAS 500	Mathematical Methods I
Spring 13	CENG 416	Chemical Engineering Process Design
Spring 13	CENG 412	Chemical Engineering Laboratory and Design
Fall 12	ENAS 500	Mathematical Methods I
Spring 12	CENG 416	Chemical Engineering Process Design

Spring 12	CENG 412	Chemical Engineering Laboratory and Design
Spring 11	CENG 412	Chemical Engineering Laboratory
Fall 10	CENG 300	Chemical Engineering Thermodynamics
Spring 10	ENAS 605	Colloid Science and Engineering
Fall 09	CENG 411	Separation and Purification Processes
Fall 08	ENAS 505	Advanced Engineering Mathematics
Spring 08	ENAS 605	Colloidal Chemical Engineering
Fall 07	CENG 210	Chemical Engineering and Process Modeling
Spring 07	ENAS 605	Colloidal Chemical Engineering
Fall 06	CENG 300	Chemical Engineering Thermodynamics
Fall 05	CENG 300	Chemical Engineering Thermodynamics
Spring 05	ENAS 605	Colloidal Chemical Engineering
Fall 04	ENAS 505	Advanced Engineering Mathematics
Spring 04	ENAS 605	Colloidal Chemical Engineering
Fall 03	ENAS 505	Advanced Engineering Mathematics

Course taught through Yale-New Haven Teachers Institute

Spring 12	Engineering in the K-12 Classroom
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Course taught at Université de Cergy-Pontoise

Spring 09	Engineering the Biomolecular Interface
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Courses taught at Wayne State University:

Fall 02	CHE 7300	Advanced Engineering Mathematics
Fall 01	CHE 3300	Thermodynamics: Chemical Equilibria
Fall 01	CHE 7100	Advanced Engineering Mathematics
Winter 01	CHE 5995	Special Topics: Molecular Modeling
Fall 00	CHE 7300	Advanced Thermodynamics
Winter 00	BE 3040	Computational Methods in Engineering
Fall 99	CHE 7300	Advanced Thermodynamics
Winter 99	CHE 3300	Thermodynamics: Chemical Equilibria
Fall 98	CHE 7300	Advanced Thermodynamics
Winter 98	CHE 3300	Thermodynamics: Chemical Equilibria
Fall 97	CHE 730	Advanced Thermodynamics
Fall 96	CHE 730	Advanced Thermodynamics

<i>Graduate Student:</i>	Courses T.A.'d at University of Minnesota:		
	Spring 93	Thermodynamics and Kinetics	Undergraduate(Instructor)
	Winter 92	Molecular Theory	Graduate
	Winter 91	Process Control	Undergraduate
	Fall 89	Unit Operations Laboratory	Undergraduate(Head T.A.)

<i>College Student:</i>	Courses tutored at Saint Olaf College:		
	Fall 85	Organic Chemistry	
	Spring 85	General Chemistry	

Advising: Postdoctoral Student Research Projects:

7. "Particle and gel-based systems for controlled glucose release", Marie-Cecile Klak, 5/11-9/11 (co-advised with E Pauthe).
6. "Polyelectrolyte adsorption kinetics at an electrified interface", Maria Sammalkorpi, 10/09-4/11.
5. "Structuring of macro-ions confined between like-charged surfaces", Aysen Tulpar, 1/05-12/05 (co-advised with JY Walz).
4. "Templated molecular recognition: theory and simulation", Lev Sarkisov, 9/03-4/05.
3. "Optical waveguide biosensing studies of protein adsorption onto biologically functionalized surfaces", Pascal Ngankam, 4/01-12/05.
2. "Optical waveguide biosensing studies of protein adsorption kinetics", Claudio Calonder, 5/99-4/01.
1. "Simulation of adsorbed protein conformational behavior", Victoria Castells, 4/99-8/02.

Graduate Student Thesis Projects:

13. "Polyelectrolyte complexation: counter-ion and salt effects", Hanna Antila (Aalto University), 1/13-present.
12. "Carbon nanotube dispersion with phospholipids", Jukka Maatta (Aalto University), 1/13-present.
11. "Electrochemical analysis of continuous polyelectrolyte adsorption under an applied potential", Matteo Salvalaglio, 1/10-8/10, **Ph.D., 2011** (Politecnico di Milano).

10. "Carbon nanotube-based antimicrobial materials", Seyma Aslan, 1/08-7/12, **Ph.D., 2012.**
9. "Nanofilm biomaterials: controlling mechanical rigidity and bioactivity", Jennifer Phelps, 9/03-2/10, **Ph.D., 2010.**
8. "Macro-ion influence on colloidal forces", Babak Fazelabdolabadi, 9/03-6/06, **Ph.D., 2009** (University of Tehran).
7. "Multilayer protein/polyelectrolyte assemblies as nanofilm biomaterials", Corinne Wittmer, 1/01-12/06, **Ph.D., 2006.**
6. "Protein adsorption and desorption kinetics: effects of applied voltage, solvent and history", Yanrong Tie, 1/00-5/03, **Ph.D., 2003.**
5. "Macro- and supra-molecular heterogeneities on optical biosensor chip surfaces", Charles Irish, 9/99-5/02, **M.S., 2002.**
4. "Modeling of adsorption in templated materials", Songyin Cheng, 5/99-5/01, **M.S., 2001.**
3. "Protein adsorption kinetics under an applied electric field: an optical waveguide lightmode spectroscopy study", Michelle Brusatori, 1/97-12/01, **Ph.D., 2001.**
2. "Theory and simulation of adsorption in a templated porous material", Linghui Zhang, 1/97-10/00, **Ph.D., 2000.**
1. "Structural and kinetic studies of irreversible multilayer particle deposition", Shaoxiong Yang, 1/97-5/99, **M.S., 1999.**

Undergraduate Student Research Projects:

28. "Fluorescent imaging of adsorption in porous polyelectrolyte films," Shalmoli Halder, 9/14-present.
27. "Porous polymer films via solution shock techniques", Trejon Turner, 5/13-present.
26. "Magnetic liposomes as medical contrast agents", Jack Belcaster, 5/13-12/13.
25. "Magnetic liposomes as medical contrast agents", Candice Gurbatri, 5/13-5/14.
24. "Pore formation in layer-by-layer polyelectrolyte films", Carrie Cao, 9/12-12/12.

23. "Aqueous processing and layer-by-layer assembly of carbon nanotubes", Marie Deneufchatel, 5/11-9/11.
22. "Aqueous processing of single walled carbon nanotubes", Rahul Kini, 1/11-5/11.
21. "Protein adsorption to carbon nanotube based materials", Enok Park, 6/10-8/10.
20. "Glucose loading and release from polyelectrolyte films", Rumezsa Bescatin, 5/10-8/10.
19. "Confocal microscopy studies of chemical cross-linking within polyelectrolyte films", Samuel Morisse, 5/10-8/10.
18. "Templating strategies for polyelectrolyte films formed via layer-by-layer assembly", Connie Wu, 5/10-12/12.
17. "Polyelectrolyte adsorption kinetics under an applied electric potential", Christel Olsen, 6/07-8/07.
16. "Layer-by-layer polyelectrolyte assembly within porous biomaterial scaffolds", Alex Kuc, 6/07-8/07.
15. "Electrostatic interactions in adsorbed polyelectrolyte systems", Jianming Zhang, 1/07 to 5/08.
14. "Polyelectrolyte adsorption kinetics under an applied electric potential", Chris Van Lang, 9/06 to 5/08.
13. "Multilayer protein assemblies as biomaterial coatings", Mario Conde, 1/05-5/06.
12. "Molecular recognition in templated porous materials", Youjung Byon, 6/03-4/04.
11. "Mass transport in biosensing flow cells", Donald Fraser, 1/02-5/02.
10. "Biomaterial protein coatings", Aaron Duncan, 4/01-12/01.
9. "Cellular interactions with fibronectin coated surfaces", Julianne Kirby, 8/00-5/01.
8. "Fluid velocity profiles in a biosensing flow cell", Steve Landelius, 1/00-5/01.
7. "Transport models of protein adsorption", Jamie Bycofski, 9/99-12/99.
6. "Biosensing of fibronectin adsorption", Lu-Ann Billings, 5/99-8/99.

5. "Cellular interactions with fibronectin coated surfaces", Samantha Boike, 5/99-12/99.
4. "Protein adsorption kinetics modeling", Jean-Marc Rollin, 1/99-4/99.
3. "Protein coatings for biomaterials applications", Michael Sevegny, 1/99-5/99.
2. "Adsorption in templated porous materials", Robert Mutch, 1/99-8/99.
1. "Comparative adsorption of alcohols in zeolites and carbon sieves", Ljupco Dimitrievski, 9/98-12/98.

High School Student Research Projects:

8. "Magnetic liposomes as medical contrast agents", Sammy Rosifsky, 6/13-8/13.
7. "Magnetic liposomes as medical contrast agents", Cray Wind, 6/13-8/13.
6. "Carbon nanotube / polyelectrolyte interfacial assembly", Aanand Patel, 7/12-8/12.
5. "Carbon nanotube / polyelectrolyte interfacial assembly", Dominic Eggerman, 6/12-8/13.
4. "Carbon nanotube / polyelectrolyte interfacial assembly", Matthew McMillan, 6/12-8/12.
3. "Counter-ion mediated electrostatic forces between charged polymers", Erin Gandelman, 10/11-7/12.
2. "Carbon nanotube-based antimicrobial materials", Jesse Goodman, 8/11-8/13.
1. "Integrated optical studies and modeling of fibrinogen adsorption kinetics", Miguel Vargas, 5/97-8/97.

Service:

Discussion Leader, Perspectives on Science and Engineering, Yale University, 1/14-5/14, 9/14-5/15.

Seminar Leader, Yale-New Haven Teachers Institute, 1/12-7/12.

Committee on Majors, Yale University, 9/11-present (co-Chair, 9/12-present).

Advancement Committee for Engineering, School of Engineering and Applied Science,

Yale University, 1/11-present.

Chair of Dept. of Chemical and Environmental Engineering, Yale University, 7/10-present.

Physical Sciences and Engineering Tenure and Appointments Committee, Yale University, 9/09-5/10.

Organizer, “ACS Symposium on Engineering the Cell-Material Interface”, American Chemical Society Annual Meeting, 3/10.

Director of Undergraduate Studies, Dept. of Chemical Engineering, Yale University, 7/08-6/10.

Session Chair, “Modeling of interfacial systems II”, American Institute of Chemical Engineers Annual Meeting, 11/07.

Session Chair, “Modeling of interfacial systems I”, American Institute of Chemical Engineers Annual Meeting, 11/07.

Honors and Academic Standing Committee, Yale University, 9/07-5/08.

Session Chair, “Nanoscale modeling of interfacial systems”, American Institute of Chemical Engineers Annual Meeting, 11/06.

Session Chair, “Thermophysical properties of biological systems”, American Institute of Chemical Engineers Annual Meeting, 11/05.

Session Vice-Chair, “Nanoscale modeling of interfacial systems”, American Institute of Chemical Engineers Annual Meeting, 11/05.

Departmental Graduate Liaison, Dept. of Chemical Engineering, Yale University, 7/05-6/08.

Session Vice-Chair, “Aggregation and Deposition of colloidal particles”, 79th American Chemical Society Colloid and Surface Science Symposium, 6/05.

Session Chair, “Biocolloids at biointerfaces”, 78th American Chemical Society Colloid and Surface Science Symposium, 6/04.

Organizer, Yale Interdisciplinary Biomaterials Group, 2004.

Session Vice-Chair, “Thermophysical properties of biological systems I and II”, American Institute of Chemical Engineers Annual Meeting, 11/03.

Organizer, CECAM workshop on "Metastability and landscapes in complex systems", 5/03.

Member, Executive Committee of the American Chemical Society Colloid and Surface Science Division, 1/03-12/08.

Organizer, "Workshop on nanoscale science and engineering: common challenges and integrative opportunities across areas of research, programming and industry", 11/02.

Session Chair, "Plenary session on nanoscale science and engineering", American Institute of Chemical Engineers Annual Meeting, 11/02.

Session Chair, "Biomolecules at interfaces", 76th American Chemical Society Colloid and Surface Science Symposium, 6/99.

Meeting Program Vice-Chair, American Institute of Chemical Engineers Annual Meeting, 11/01.

Organizer, "Workshop on grand challenges in nanoscale science and engineering", 11/01.

Session Chair, "Interfacial cellular phenomena in biomaterials", American Institute of Chemical Engineers Annual Meeting, 11/01.

Session Vice-Chair. "Biomolecules at interfaces", American Institute of Chemical Engineers Annual Meeting, 11/01.

Session Chair, "Molecular simulation and theory of adsorption phenomena", American Institute of Chemical Engineers Annual Meeting, 11/01.

Session Chair, "Nanoscale science and engineering plenary", American Institute of Chemical Engineers Annual Meeting, 11/01.

Organizer, "ACS Symposium on Biomacromolecules at Interfaces", American Chemical Society Annual Meeting, 8/01.

Session Vice-Chair, "Thermodynamics of adsorption I: disordered materials", American Institute of Chemical Engineers Annual Meeting, 11/00.

Chair, Detroit Chapter of the American Institute of Chemical Engineers, 9/00-9/02.

Session Vice-Chair, "Adsorption of macromolecules at solid-liquid interfaces", American Institute of Chemical Engineers Annual Meeting, 11/99.

Faculty Adviser, WSU AIChE Student Chapter, 9/99-8/02.

Session Chair, "Cell-surface interactions", 73rd American Chemical Society Colloid and Surface Science Symposium, 6/99.

Co-organizer, "Midwest Thermodynamics and Statistical Mechanics Meeting", 5/99.

Session Chair, "Interfacial phenomena in biotechnology", American Institute of Chemical Engineers Annual Meeting, 11/98.

Session Vice-Chair, "Interfacial phenomena in biomaterials", American Institute of Chemical Engineers Annual Meeting, 11/98.

Session Vice-Chair, "Thermodynamics of condensed phase systems: Confined systems", American Institute of Chemical Engineers Annual Meeting, 11/98.

Vice-Chair, Detroit Chapter of the American Institute of Chemical Engineers, 9/98-8/00.

Session Vice-Chair, "Thermodynamic properties and phase behavior: General I", American Institute of Chemical Engineers Annual Meeting, 11/97.

Member, Wayne State University College of Engineering Academic Operations Committee, 9/97-5/98.

Secretary, Detroit Chapter of the American Institute of Chemical Engineers, 6/97-8/98.