

## **CONFERENCE PRESENTATIONS**

1. T. Fuller, H. Gasteiger, T. Van Nguyen, and J. Meyers, "Findings of the Fuel Cell Workshop", Proton Exchange Membrane Fuel Cells V, In Honor of Supramaniam Srinivasan: Membranes II, Electrochemical Society Meeting, Los Angeles, CA, Paper # 936, Oct. 16-21, 2005.
2. R. Jain and T. Nguyen, "Modeling the Effect of Microporous Layer in PEM Fuel Cells, ", Proton Exchange Membrane Fuel Cells V, In Honor of Supramaniam Srinivasan: Modeling, Electrochemical Society Meeting, Los Angeles, CA, Paper # 996, Oct. 16-21, 2005.
3. R. Jain and T. Nguyen, "Optimized Catalyst Layer Structure for PEM Fuel Cells, ", Proton Exchange Membrane Fuel Cells V, In Honor of Supramaniam Srinivasan: Cell Design, Electrochemical Society Meeting, Los Angeles, CA, Paper # 1001, Oct. 16-21, 2005.
4. H. Ohn and T. Nguyen, "Capillary Pressure Properties of Gas Diffusion Materials Used in PEM Fuel Cells", Proton Exchange Membrane Fuel Cells V, In Honor of Supramaniam Srinivasan: Membranes II, Electrochemical Society Meeting, Los Angeles, CA, Paper # 1013, Oct. 16-21, 2005.
5. T. Nguyen and G. Lin, "Effect of Morphological and Wetting Characteristics of the Gas Diffusion Layers on Electrode Flooding Level in a PEM Fuel Cell", Fuel Cells: From Materials to Systems, Electrochemical Society Meeting, Quebec City, Quebec, Canada, Paper # 759, May 15-20, 2005.
6. G. Lin and T. Nguyen, "A Two-Dimensional Two-Phase Model of the Gas Diffusion and Catalyst Layers of the Cathode of a PEM Fuel Cell", Modeling of Electrochemical Systems, Electrochemical Society Meeting, Quebec City, Quebec, Canada, Paper # 1303, May 15-20, 2005.
7. T. Nguyen and D. Natarajan, "Implementation of Newman's BAND(J) Subroutines for Solving Problems with Discontinuous Internal Boundary Conditions", Modeling of Electrochemical Systems, Electrochemical Society Meeting, Quebec City, Quebec, Canada, Paper # 1304, May 15-20, 2005.
8. Trung Van Nguyen, "Frontiers in Chemical Engineering: PEM Fuel Cells," AIChE 2004 National Meeting, Austin, Texas, November 7-12, 2004.
9. Trung Van Nguyen and Guangyu Lin, "Effect of Morphological and Wetting Characteristics of the Gas Diffusion Layers on Electrode Flooding Level in a PEM Fuel Cell", Fourth International Symposium on Proton Conducting Membrane Fuel Cells, The Electrochemical Society Meeting, Honolulu, Hawaii, October 3-8, 2004.
10. Trung Van Nguyen, Minh Vu Nguyen and Guangyu Lin, "Characterization of Membrane Surface Ionic Activity and Its Effect on the Performance of a PEM Fuel Cell", Fourth International Symposium on Proton Conducting Membrane Fuel Cells, The Electrochemical Society Meeting, Honolulu, Hawaii, October 3-8, 2004.
11. Trung Nguyen, Wensheng He and Guangyu Lin, "A Diagnostic Tool to Detect Electrode Flooding in PEM Fuel Cells," Fuel Cell Technology Session, AIChE 2003 Annual Meeting, San Francisco, November 16-21, 2003.
12. Trung Nguyen, Wensheng He and Guangyu Lin, "Modeling Two-Phase Flow in the Catalyst and Gas Diffusion Layers of PEM Fuel Cells," Fuel Processing I: Modeling and System Session, AIChE 2003 Annual Meeting, San Francisco, November 16-21, 2003.
13. Trung Nguyen and Mack Knobbe, "Liquid Water Management for PEM Fuel Cell Stacks," Battery and Energy Technology Joint Symposium, Electrochemical Society Meeting, Orlando, Florida, October 14, 2003.
14. Trung Nguyen, Wensheng He and Guangyu Lin, "Diagnosis of Electrode Flooding in PEM Fuel Cells," Advanced materials for Fuel Cells and Batteries Symposium, Electrochemical Society Meeting, Orlando, Florida, October 14, 2003.
15. D. Natarajan and T. Nguyen, "Experimental Investigation of Spatial-Temporal Current Distribution in the Cathode of a PEM Fuel Cell Using Segmented Electrodes," Battery and Energy Technology Joint General Session, Electrochemical Society Meeting, Philadelphia, Pennsylvania, Paper No. 130, May 12-16, 2002.

16. W. He and T. Nguyen, "A New Diagnostic Tool for Liquid Water Management in PEM Fuel Cells Using the Interdigitated Flow Fields," Battery and Energy Technology Joint General Session, Electrochemical Society Meeting, Philadelphia, Pennsylvania, Paper No. 130, May 12-16, 2002.
17. Trung Van Nguyen and Wensheng He, "A Two-Phase Flow Model for PEM Fuel Cells with Interdigitated Flow Fields," Fuel Cell Modeling II Session, Fuel Cell Technology: Opportunities and Challenges, Paper No. 80b, AIChE 2002 Spring Annual Meeting, New Orleans, Louisiana, USA, March 10-14, 2002.
18. Trung Van Nguyen, Sam Wiley, and Minh Vu Nguyen, "Effect of Catalyst Support Particle Size on PEM Fuel Cell Performance," Membrane and Electrode Assemblies Session, Fuel Cell Technology: Opportunities and Challenges, Paper No. 83c, AIChE 2002 Spring Annual Meeting, New Orleans, Louisiana, USA, March 10-14, 2002.
19. Trung Van Nguyen, "Frontiers in Chemical Engineering: Fuel Cells," AIChE 2001 Annual Conference, Reno, Nevada, November 4, 2001
20. Trung Van Nguyen, Sam Wiley and Minh Vu Nguyen, "Effect of Catalyst Particle Size on PEM Fuel Cell Performance," AIChE 2001 Annual Meeting, Symposium on Fuel Processing and Fuel Cells, paper No. 3, Reno, Nevada, November 4-9, 2001.
21. Trung Van Nguyen, Joshua Mitchell and Wensheng He, "Monitoring and Controlling Electrode Flooding in PEM Fuel Cells," AIChE 2001 Annual Meeting, Symposium on Fuel Processing and Fuel Cells, paper No. 4, Reno, Nevada, November 4-9, 2001.
22. T.V. Nguyen, W. He and D. Natarajan, "Two-Phase Flow Models for PEM Fuel Cells: Correlation of Experimental and Model Results," The 2001 Joint Meeting of the Electrochemical Society and the International Society of Electrochemistry, Symposium on Fuel Cells and Conducting Polymers, paper No. 454, San Francisco, CA, September 2-7, 2001.
23. Trung V. Nguyen, "Surface Enhancement of PEM Fuel Cell Membrane and Electrode Assemblies by Plasma Etching," AIChE 2000 Annual Meeting, Symposium on Fuel Cells, Systems and Processors I, paper No. 4, Los Angeles, CA, November 12-17, 2000.
24. Dilip Natarajan and Trung V. Nguyen, "Experimental Investigation of Spatial-Temporal Current Distribution in a PEM Fuel Cell," AIChE 2000 Annual Meeting, Symposium on Fuel Cells, Systems and Processors II, paper No. 4, Los Angeles, CA, November 12-17, 2000.
25. Wensheng He and Trung V. Nguyen, "Diagnostic Studies on the Kinetics and Transport Phenomena of PEM Fuel Cells Using Interdigitated Flow Fields," AIChE 2000 Annual Meeting, Symposium on Fuel Cells, Systems and Processors II, paper No. 5, Los Angeles, CA, November 12-17, 2000.
26. T. Nguyen, "A One-Dimensional, Two-Phase, Transient Model of the Cathode of a Proton Exchange Membrane Fuel Cell," Battery and Energy Technology Joint General Session, Electrochemical Society Meeting, Toronto, Canada, Paper No. 93, May 14-18, 2000.
27. W. He, J. Yi, and T. Nguyen, "A Two-Phase Flow Model of the Cathode of Proton Exchange Membrane Fuel Cells Using the Interdigitated Flow Fields," Battery and Energy Technology Joint General Session, Electrochemical Society Meeting, Toronto, Canada, Paper No. 91, May 14-18, 2000.
28. D. Natarajan and T. Nguyen, "A One-Dimensional, Two-Phase, Transient Model of the Cathode of a Proton Exchange Membrane Fuel Cell," Battery and Energy Technology Joint General Session, Electrochemical Society Meeting, Toronto, Canada, Paper No. 93, May 14-18, 2000.
29. G.K. Venkatasubramanian and T. Nguyen, "The Development of Low Catalyst Loading Membrane and Electrode Assemblies for PEM Fuel Cells," Symposium on Conducting Polymers and Fuel Cells, Electrochemical Society Meeting, Toronto, Canada, Paper No. 1216, May 14-18, 2000.
30. B. Dorathy and T. Nguyen, "Topographical Study of Nafion Membrane," Symposium on Applications of Surface Science to Energy Technologies, Electrochemical Society Meeting, Toronto, Canada, Paper No. 630, May 14-18, 2000.
31. Jung S. Yi and Trung V. Nguyen, "A Two-Phase Flow Model to Investigate the Hydrodynamics of Gas and Liquid Water in the Cathode of PEM Fuel Cells with Interdigitated Gas Distributors," 1998 Annual

- AIChE Meeting, November 15-20, 1998, Miami Beach, Florida, Paper 107b, Fuel Cells and Fuel Cell Systems-I Session.
32. Trung V. Nguyen, "An Along-the-Channel Model to Study the Effect of Air Bleeding in Proton Exchange Membrane Fuel Cells," Annual National Laboratory R&D Meeting, DOE Fuel Cells for Transportation Program, Los Alamos National Laboratory, Los Alamos, NM 87545, July 28-29, 1998.
  33. Trung Van Nguyen, "A Study of Isothermal Hydration of Polyperfluorosulfonic Acid Membranes," University of Kansas, Chemical & Petroleum Engineering Department Graduate Seminar, September 23, 1997.
  34. T. Van Nguyen and David Wood, "Effect of Liquid Water Injection on PEM Fuel Cell Performance Using Gas Flow Distributor Designs with Air and Oxygen as the Cathode Reactant," 1997 Joint International Meeting between The Electrochemical Society and The International Society of Electrochemistry, August 31-September 5, 1997, Paris, France.
  35. T. Van Nguyen and David Wood, "Mathematical Modeling of the Condensation Effects and Liquid Water Blockage in Diffusion Layer of the Cathode of PEM Fuel Cells," 1997 Joint International Meeting between The Electrochemical Society and The International Society of Electrochemistry, August 31-September 5, 1997, Paris, France.
  36. T. Van Nguyen and Jung Seok Yi, "Multicomponent Transport in the Porous Electrode of PEM Fuel Cells with Interdigitated Gas Distributor," 1997 Joint International Meeting between The Electrochemical Society and The International Society of Electrochemistry, August 31-September 5, 1997, Paris, France.
  37. T. Van Nguyen and Haitao Huang, "A Transient Non-Isothermal Model for VRLA Batteries Under Float Charge," 1997 Joint International Meeting between The Electrochemical Society and The International Society of Electrochemistry, August 31-September 5, 1997, Paris, France.
  38. T. Van Nguyen and Haitao Huang, "A Two-Dimensional Transient Thermal Model for Valve Regulated Lead Acid Batteries Under Overcharge," 1997 Joint International Meeting between The Electrochemical Society and The International Society of Electrochemistry, August 31-September 5, 1997, Paris, France.
  39. Trung Van Nguyen, "Proton Exchange Membrane Fuel Cells as An Alternative Electrical Power Source: Recent Developments at The University of Kansas," VTIC '97, San Jose' State University, San Jose, CA, July 17-19, 1997.
  40. Jung S. Yi and Trung Van Nguyen, "Hydrodynamics of Reactant Gas in the Electrode of PEM Fuel Cells with Inter-Digitated Flow Fields," presented at The Electrochemical Society Fall Meeting, San Antonio, October 6-11, 1996.
  41. Trung Van Nguyen, "Proton Exchange Membrane Fuel Cells: An Alternative Electrical Power Source," VTIC '96, Washington, D.C., July 1-3, 1996.
  42. Trung Van Nguyen, "A Non-Isothermal Float Model for Valve-Regulated Lead-Acid Battery," presented at the Symposium on Battery Charge Management and Smart Chargers of the Electrochemical Society Fall 1995 Meeting, Chicago, Illinois, October 8-13, 1995.
  43. Jung S. Yi and Trung V. Nguyen, "The Effect of the Flow Distributor of the Performance of PEM Fuel Cells," presented at the First International Symposium on Proton Conducting Membrane Fuel Cells of the Electrochemical Society Fall 1995 Meeting, Chicago, Illinois, October 8-13, 1995.
  44. Trung Van Nguyen, "Modeling of Porous Electrodes: Battery Applications," University of Kansas, Chemical & Petroleum Engineering Dept. Graduate Seminar, December 6, 1994.
  45. J-F Yan, T.V. Nguyen, R.B. Griffin, and R.E. White, "A Quantitative Study on Formation of Calcareous Deposits on Cathodically Protected Steel in Seawater," presented at the Electrochemical Society Fall Meeting, Miami Beach, Florida, October 9-14, 1994. **This paper was presented at the Morris Cohen Graduate Student Awards and Recognition Session.** The award was given to J-F Yan for his dissertation work in the area of marine cathodic protection and formation of calcareous deposits on low carbon steels.

46. T.V. Nguyen, "Water and Heat Management Issues in Proton-Exchange-Membrane Fuel Cells," presented at the Electrochemical Society North Texas Section, Dallas, TX, December 8, 1993.
47. P. Ng, T.V. Nguyen, M.C. Weeks, A.G. Cannone, and K.R. Bullock, "Performance and Characteristics of Valve-Regulated Lead-Acid Batteries with a Concentric Square Grid Design," presented at *INTELEC 93*, Paris, France, September 1993.
48. J-F Yan, T.V. Nguyen, R.E. White, and R.B. Griffin, "Formation of Calcareous Deposits on Cathodically Protected Steel in Seawater," presented at the Symposium on Cathodic Protection Systems, Electrochemical Society Spring Meeting, St. Louis, Missouri, May 17-22, 1992.
49. Trung V. Nguyen, "A Water and Heat Management Model for Proton-Exchange-Membrane Fuel Cells," presented at the Symposium on Modeling of Batteries and Fuel Cells, Electrochemical Society Fall Meeting, Phoenix, Arizona, October 13-17, 1991.
50. Trung Nguyen, James Hedstrom, and Nicholas Vanderborgh, "Heat and Mass Transfer Design Issues in PEM Fuel Cell Hardware," presented at the Symposium on Fuel Cells, AIChE Meeting, San Francisco, California, November 6-7, 1989.
51. T. Nguyen, J. Guante, and N. Vanderborgh, "Ionic Transport Through Polyperfluorosulfonic Acid Membranes," presented at the Material Research Society Fall Meeting, Boston, Massachusetts, November 28-December 3, 1989.
52. T. Nguyen, N. Vanderborgh, C. Spirio, J. Guante, B. Kingsbury, J. Hedstrom, and G. Read, "Water Transport Issues in PEM Fuel Cells," presented at the International Fuel Cells Seminar, Long Beach, California, September 26-30, 1988.
53. N. Vanderborgh, T. Nguyen, J. Hedstrom, and J. Leddy, "PEM Fuel Cell Anodes: Humidification and Performance," presented at the American Chemical Society, Symposium on Electrocatalysis, Los Angeles, California, September 26-30, 1988.
54. N. Vanderborgh, T. Nguyen, and J. Hedstrom, "Polymer Fuel Cells: Transportation Applications," presented at the Detroit Section of the Electrochemical Society on Electrochemical Systems and Applications, Bloomfield Hills, Michigan, April 7, 1988.
55. T.I. Evans, T.V. Nguyen, and R.E. White, "Case Studies: Modeling of Zn/Br<sub>2</sub>, Pb/PbO<sub>2</sub>, and Li/SOCl<sub>2</sub>," presented at the Third Annual Battery Conference on Applications and Advances, Long Beach, California, January 12-14, 1988.
56. C.W. Walton, T.V. Nguyen, and R.E. White, "Modeling of Bilayer Cation Exchange Membranes with Application to Chlor-Alkali Cells," presented at the AIChE 1987 Spring Annual Meeting and Petro Expo 1987, Houston, Texas, March 30, 1987.
57. L.P. Decker, T.V. Nguyen, R.E. White, and D. Hanson, "A Computational Productivity Model for Asymmetric and Isotropic Hollow-Fiber Bioreactors," presented at the AIChE 1986 Annual Meeting, Miami Beach, Florida, November 6, 1986.