

Prof. Neal T. S. Chung

KEYNOTE LECTURE IN CONFERENCES AND WORKSHOP

1. T. S. Chung, "The Development of Liquid Crystalline Polymers", invited lecture by Taiwan Economy Board and Society of Chinese American Engineers, 1986.
2. T. S. Chung, "Fundamentals and Applications of Polymer Processes", invited lecture by Taiwan Economy Board and Society of Chinese American Engineers, 1986.
3. T. S. Chung, "The Development of Membrane Technology", invited lecture by the PAO Enterprise of NUS and lectured in Membrane Technology Workshop, Singapore, Nov. 1995.
4. W. K. Teo and T. S. Chung, "Membrane Development in Singapore", invited lecture by IMSTEC (International Membrane Science and Technology Conference), Australia, Nov. 1996.
5. T. S. Chung, "The Development of Advanced Polymer and Membrane Technology for Singapore", invited by the Singapore National Science and Technology Board (NSTB) and presented on Technology Partnership Symposium for the Life Science and Chemical Industry, Singapore, Oct. 1997.
6. T. S. Chung, "The Develop of Celgard Membrane Technology", invited lecture by the Singapore Environmental Technology Institute (ETI) and lecture in Membrane Separation Technology, Singapore, Dec. 1997.
7. T. S. Chung, "The Develop of Gas Separation Membranes", invited lecture by the Singapore Environmental Technology Institute (ETI) and lecture in Membrane Separation Technology, Singapore, Dec. 1997.
8. T. S. Chung, "Technology Breakthrough and Unsolved Challenge in Polymeric Hollow Fiber Membrane Fabrication", keynote lecture invited by International Conference of Membrane Science and Technology (ICMST), June 1998, Beijing, China.
9. T. S. Chung, "Fundamental Study of Wholly Aromatic Main-Chain Liquid Crystalline Polymers; Novel Synthesis and Surface Energy Evolution of Liquid Crystalline Polymers", keynote lecture invited by 6th National Liquid Crystal Conference, September 1998, Hunan, China.
10. T. S. Chung, "Basic Fabrication and Process Principles of Controlled Release Microsphere and Membranes", Workshop on Polymeric Controlled Release Systems, May 31, 1999. Singapore.
11. T. S. Chung, Fundamentals of Asymmetric Hollow Fiber Spinning Process and Membrane Formation, Invited by Taiwan National Science Foundation, Chung Yuan Christian University, Taiwan, Oct 26, 2000.
12. T. S. Chung, Fundamentals of Asymmetric and Multi-layer Composite Hollow Fiber Fabrication Process, , Invited by Taiwan National Science Foundation, National Taiwan University, Taiwan, Oct 27, 2000.
13. T.S. Chung, Technology Breakthroughs and Challenge in Polymeric Hollow Fibre Membrane Fabrication, Invited by Taiwan National Science Foundation, Chung Yuan Christian University, Taiwan, Oct 28, 2000.

14. T. S. Chung, Enhanced Fluoropolyimide Gas Separation Properties Through Room-Temperature Cross-linking Modification, The 23rd Symposium of Transport Phenomena and Its Applications / Membrane Separation Forum, National Taiwan U. Taiwan, Dec. 2001.
15. T. S. Chung, Development of 6FDA-2, 6DAT Hollow Fiber Membranes for CO₂/CH₄ Separation The 2nd Conference on Membrane Science & Technology, Chung Yuan U, Chung Li, Taiwan, May 18, 2002.
16. T. S. Chung, Fabrication of Hollow Fiber Membranes for Gas Separation: Historical Development and Technology Challenges Ahead, Plenary Speaker for the Annual Meeting of the Korea Membrane Society, Korea, May 8, 2003. Cancelled because of SARS.
17. T. S. Chung, Fundamentals of Asymmetric Hollow Fiber Membranes, 2003 international conference, Advances in Petrochemicals and Polymers in the New Millennium, Bangkok, July 22-25, 2003.
18. T. S. Chung, The Experimental Observations, Theoretical Aspects and Chemical Modification of The Physical Aging and Plasticization Behaviors of Thin Polyimide Films, The 3rd Conference on Membrane Science & Technology, Taiwan, Sept 20, 2003.
19. T. S. Chung, A Review on Asymmetric Hollow Fiber Spinning, Process and Membrane Formation, The Regional Symposium on Membrane Science & Technology 2004, Malaysia, April 23-25, 2004.
20. T. S. Chung, L. Shao, Y. C. Xiao Y. C., and M. L. Chng, Dendrimer Induced Cross-Linking Modification of Polyimide Membranes, Advanced Membrane Technology II, Irsee, Germany, May 24-28, 2004.
21. T. S. Chung, Fabrication of Aymmetric Hollow Fiber Membranes and Enhanced Membrane Performance by Chemical and Thermal Modifications, the 3rd International Symposium on High-Tech Polymers and Polymer Complexes held on July 15-18, 2004, Lanzhou, China.
22. T. S. Chung, Development of membrane for gas/liquid /biopharmaceutical Separation, 2004 Textile International Forum and Exhibition, organized by the Department of Industrial Development of the Ministry of Economic, Taipei Oct 21-22, 2004.
23. T. S. Chung, Fabrication and Characterization of Zeolite/polymer Mixed Matrix Nano-composite Membranes for Gas Separation, ICMAT, July 3-8, Singapore, 2005.
24. T. S. Chung, L. Y. Jiang, L. Y., Li, Y. and Kulprathipanja, S., Fundamental understanding of the science and engineering of the fabrication of zeolite/polymer nano-composite, the 4th International Membrane Conference on Membrane Science and Technology, Chung-Li, Taiwan, Aug 18-19, 2005.

CONFERENCE PAPERS

25. M. E. Ryan, T. S. Chung, and S. Abdalia, Understanding Injection Mold Filling, pg. 116, 38th Annual Technical Conference, Society of Plastics Engineers, 1980.
26. C. E. McChesney and T. S. Chung, Reduced Carbonation Loss and Increased Hot Fill Capability of Injection-Reheat-Stretch-Blow PET Bottles, pg. 816, 41st SPE Annual Tech. Conference, 1983.
27. T. S. Chung, Analysis of the Compression Mold Packing, pg. 743, 41st SPE Annual Tech. Conference, 1983.

28. T. S. Chung, Liquid-Crystal Polyester/Nylon Blends, p. 1404, 45th SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), 1987.
29. T. S. Chung, F. K. Herold and P. C. Chen, Sr., Fibers from Blends of PBI with Polyaramide and Polyarylate, Proceedings of Fiber Producer Conference. 3A-2 (May) 1991 at Greenville, SC.
30. P. N. Chen, Sr., T. S. Chung, P. J. Harget and M. Jaffe, Development of Polybenzimidazole (PBI) Blends for Aerospace and Composite Applications; Proceedings of ACS in Polymer Material Science and Engineering, 58, 707, 1988.
31. T. S. Chung, The Effect of Spinning Conditions on the Morphology of Asymmetric Hollow Fibers, Proceedings of IMSTEC(International Membrane Science and Technology Conference), C2, Australia, Nov. 1996.
32. T. S. Chung, S. K. Teoh and X. Hu, The Development of High-Performance Polyethersulfone Hollow Fiber Membranes With An Ultra-Thin Selective Layer, Proceedings of EuroMembrane Conference. P. 212, The Netherlands, June 1997.
33. T. S. Chung, Fluoro-Containing Polyimide Blends by Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p. 2658, 1997.
34. T. S. Chung and R. H. Vora, Fundamental Study of Fluoropolyimide Blends, 6th International Conference on Polyimides and other Low K Dielectrics, New Jersey, Oct, 1997.
35. T. S. Chung and R. H. Vora, The Development of Fluoropolyimide Membranes for Air Separation (poster), 6th International Conference on Polyimides and other Low K Dielectrics, New Jersey, Oct, 1997
36. S. L. Liu, T. S. Chung, H. Oikawa, A. Yamaguchi, and Y. Torii, Crystallization behavior of a polyimide derived from 1,3-bis[4-(4'-aminophenoxy) cumyl] Benzene, (poster), 4th National Symposium on Progress in Materials Research, March 27, Singapore, 1998
37. H. Wang, K. W. Lee, S. H. Teoh and T.S. Chung, Rheological Behavior and Processing Condition of Liquid Crystalline Polymer and Nylon, (poster), 4th National Symposium on Progress in Materials Research, March 27, Singapore, 1998
38. S. Cheng, T. S. Chung and S. Mullick, Thin film polymerization of poly(2,6-oxynaphthoate/p-oxylbenzoate) copolymers, (poster), 4th National Symposium on Progress in Materials Research, March 27, Singapore, 1998
39. S. Mullick, J. Xing, S. X. Cheng, S. H. Goh, and T.S. Chung, Synthesis and Characterization of High Performance Liquid Crystalline Polymers for Electronics Applications, 4th National Symposium on Progress in Materials Research, March 27, Singapore, 1998
40. R. H. Vora, S. Veeraman, H. H. Huang, and T. S. Chung, Synthesis and Properties of series of Polyimides derived from Di-ether Containing Diamines and various Aromatic Dianhydrides, 4th National Symposium on Progress in Materials Research, March 27, Singapore, 1998
41. K. C. Loh, T. S. Chung, H. L. Tay and S. K. Goh, "Hollow Fiber Membrane Immobilization to Increase Phenol Tolerance of Bacteria, Environmental Strategies for the 21st Century, Asia Pacific Conf. April 10, Singapore, 1998
42. S. L. Liu and T. S. Chung, A. Yamaguchi and M. Ohta, Crystallization Morphology and Crystallization kinetics of a Liquid Crystalline Polyimide, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), P. 1494, Atlanta, Georgia, April 26-20, 1998

43. K. X. Ma and T. S. Chung, Estimation of Surface Tensions of Thermotropic Liquid Crystalline Polymers (VECTRA A950, B950 AND XYDAR), Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), 1583, Atlanta, Georgia, April 26-20, 1998
44. T. S. Chung, M. Cheng, and S. H. Goh, Crystallisation Mechanism of Vectra™ A Liquid Crystal Polymer, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), P. 2017, Atlanta, Georgia, April 26-20, 1998
45. J. J. Shieh, T. S. Chung, and D. R. Paul, Silicone Rubber/Poly(4-Vinylpyridine)/Polysulfone Multi-Layer Composite Hollow Fiber Membranes For Gas Separation, Proceedings of 10th annual meeting of the North American Membrane Society, p. 24, Cleveland, Ohio, May 16-20, 1998
46. T. S. Chung and S. K. Teoh, Effect of Shear Stress Within the Spinneret on Hollow Fibre Membrane Morphology and Separation Performance, Proceedings of 10th annual meeting of the North American Membrane Society, p. 122, Cleveland, Ohio, May 16-20, 1998
47. S. L. Liu, T. S. Chung, H. Oikawa, and A. Yamaguchi, Double Melting Behavior of a Liquid
48. Crystalline Polyimide, Proceeding of 14th PPS (The Polymer Processing Society) Annual Tech. Conference, p. 569, Yokohama, Japan, June 8-12, 1998
49. H. Wang, K. W. Lee, S. H. Teoh, and T. S. Chung, Rheological Study of Thermotropic LCP/Nylon Blends, Proceeding of 14th PPS (The Polymer Processing Society) Annual Tech. Conference, p. 493, Yokohama, Japan, June 8-12, 1998
50. K. X. Ma and T. S. Chung, Fundamental Understanding of the Surface Energy of Thermotropic Liquid Crystalline Polymers Proceeding of 14th PPS (The Polymer Processing Society) Annual Tech. Conference, p. 567, Yokohama, Japan, June 8-12, 1998
51. S. X. Cheng, T. S. Chung and S. Mullick, Thin Film Polymerization of Poly(2,6-oxynaphthoate/
52. p-oxybenzoate), Proceeding of 14th PPS (The Polymer Processing Society) Annual Tech. Conference, p. 631, Yokohama, Japan, June 8-12, 1998
53. K. X. Ma, T. S. Chung, S. X Cheng, S. Mullick, Surface energies during thin film polymerization for liquid crystalline polymers, the 216th Annual Conf. of American Chemical Society, 216: 311-COLL , Part 1, Boston, Aug. 23 1998
54. T. S. Chung and S. X. Cheng, Phase separation process and liquid crystal texture evolution during thin film polymerization reaction, the 216th Annual Conf. of American Chemical Society, 216: 489-PHYS , Part 2, Boston, Aug 23. 1998
55. T. S. Chung and K. X. Ma, Surface energy studies of liquid crystalline polymers. the 216th Annual Conf. of American Chemical Society, 216: 091-COLL , Part 1, Boston, Aug. 23 1998
56. R. H. Vora and T. S. Chung, 6FDA based polyimides, synthesis and characterization, Polymers' 99, International Symposium on Polymers beyond AD2000, New Delhi, India, Jan 12, 1999
57. X. Jin and T. S. Chung, Thermal Decomposition Behavior of High Performance Liquid Crystalline Polymers by TGA and TG-IR, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p. 2319-2323, New York City, May 2-6, 1999
58. H. Wang, K. W. Lee, T. S. Chung, The Fiber Melting Spinning of Thermotropic Liquid Crystalline/ Nylon Blends, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p. 1600-1604, New York City, May 2-6, 1999.

59. S. L. Liu, T. S. Chung, Crystallization behavior of regioregular poly(3-dodecylthiophene), , Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p2324-2328, New York, May 2-6, 1999.
60. T. S. Chung, K. X. Ma, Evolution of surface free energy during thin film polymerization of main-chain liquid crystalline polymers, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p1590-1594, New York, May 2-6, 1999.
61. K. X. Ma, C. H. Ho and T. S. Chung, Surface energy investigations of organic light emitting polymers and its substrates, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p2212-2215, New York, May 2-6, 1999.
62. K. P.Pramoda K.P., T. S. Chung, S. L. Liu, H. Oikawa and A. Yamaguchi, Thermal Degradation of Polyimide and Polyamide Liquid Crystalline Polymers, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p. 1932-1936, New York City, New York, May 2-6, 1999.
63. S. X. Cheng, T. S. Chung and S. Mullick, In Situ of Microstructure Change during Polymerization of Thermotropic Liquid Polymers, Proceedings of SPE (Society of Plastic Engineers) ANTEC (Annual Tech. Conference), p. 1928-1931, New York City, New York, May 2-6, 1999.
64. R. H. Vora and T. S. Chung, Development of Fluoro-Polyetherimides for Electronics Applications: Synthesis and Characterisation, 5th European Technical Symposium on Polyimides & High Performance Functional Polymers, 2⁻⁵ May 1999, held at The University of Montpellier, Montpellier, France
65. J. J. Qin and T. S. Chung, Effect of Dope Flow Rate on the Morphology and Performance of UF Hollow Fiber Membranes, International Congress on Membranes & Membrane Processes, Toronto, 12-18 June 1999.
66. T. S. Chung, S. K. Teoh, and Juan Gu, Effect of Shear Stress within the Spinneret on Polyethersulfone Hollow Fibre Membrane Morphology, Performance, and Mechanical Properties, International Congress on Membranes & Membrane Processes, Toronto, 12-18 June 1999.
67. Y. Y. Yang, X. L. Bai, W. K. Chan, X. Q. Chen, L. Wang, K. W. Lee, S. S. Feng, and T. S. Chung, The Preparation Conditions on Characteristics of Biodegradable Polymeric Microspheres Containing Protein Fabricated by Double-Emulsion solvent Extraction Technique, Proceedings of the 26th International Symposium on Controlled Release of Bioactive Materials, Boston, June 20-22, (1999)
68. Y. Y. Yang, S. S. Feng, W. K. Chan, K. W. Lee, X. Q. Chen, X. L. Bai, and T. S. Chung, Profile, Morphology and Mechanism of Protein Release from Biodegradable Polymeric Microspheres, Proceedings of the 26th International Symposium on Controlled Release of Bioactive Materials, Boston, June 20-22, (1999)
69. S. S. Feng, Y. Y. Yang, and T. S. Chung, Effects of Initial Drug Distribution on Controlled Release Kinetics from Polymeric Microspheres, Proceedings of the 26th International Symposium on Controlled Release of Bioactive Materials, Boston, June 20-22, (1999)
70. Y. Lin, K. P. Pramoda, W. Chen; T. S. Chung, R. Zhang, Synthesis, Characterization, Curing, and Thermostability of Ladder-like Polyepoxysiloxanes, 1999 Annual ACS conference, New Orleans, August 21–26, Polymer Preprints, 40(2),944 (1999)

71. W. Y. Chen, Y. Lin, K. P. Pramoda, K. X. Ma, T. S. Chung, Surface Energies of Ladder-like Polyepoxysiloxanes, 1999 Annual ACS conference, New Orleans, August 21–26, Polymer Preprints, 1999, 40(2),595 (1999)
72. X. L. Bai, Y. Y. Yang, T. S. Chung, W. Ling, S. Ng, J. Heller, Controlled protein release from poly (orthoester) microspheres, presented at The 8th International Conference on Processing and Fabrication of Advanced Materials (PFAM VIII), Singapore, Sept 8-10, (1999)
73. C. H. Wang, H. M. Wong, J.J. Wang, Y. Y. Yang , and T. S. Chung, Controlled Release Studies of IgG from Microspheres, Annual Technical Conference, American Institute of Chemical Engineers, Dallas, Oct 31-Nov 5, (1999)
74. W. H. Lin, T. S. Chung, R. H. Vora and R. Wang, The Effect of Shear Rates on Gas Separation Performance of 6FDA-Durene Polyimide Hollow Fibers, American Institute of Chemical Engineers, Dallas, Oct 31-Nov 5. 1999.
75. T. S. Chung and S. X. Cheng, Evolution of liquid crystallinity during thin film polymerization of thermotropic liquid crystalline polymers, P. 184, Proceedings of International Conference on New Trends in Functional Polymers, Huangshan, China, May 9-11, 2000
76. Y. M. Cao, R. Wang, R. Vora and T. S. Chung. The Effects of Shear Rates and Bore Fluids on Gas Separation Performance of 6FDA-Durene Polyimide Asymmetric Hollow Fibers, P.200, Proceedings of International Conference on New Trends in Functional Polymers, Huangshan, China, May 9-11, 2000.
77. R. Wang and T.S. Chung. Determination of the Effect of Shear Stress within a Spinneret on Surface Porosity and Skin Structure of Gas Separation Hollow Fiber Membranes, P.152, Proceedings of 11th Annual Conference and Workshop, Boulder, Colorado, May 24-27, 2000.
78. H. H. Chia, Y. Y. Yang, T. S. Chung, Effect of Preparation Temperature on the Characteristics and Release Profiles of PLGA Microspheres Containing Protein Fabricated by Double-Emulsion Solvent Extraction/Evaporation Method, Proceedings of 11th Annual Conference and Workshop, Boulder, Colorado, May 24-27, 2000.
79. T. S Chung, E. S. P. Loh, and J. J. Shieh, A Simple Approach to Estimate Gas Permeability and Selectivity of Extremely Thin and Brittle Materials, Proceedings of 11th Annual Conference and Workshop, Boulder, Colorado, May 24-27, 2000.
80. S. G. Krishnan, R. H. Vora, Synthesis and Characterisation of Poly (4, 4' Oxydiphthalic anhydride – co – 2,2' – dimethyl – 4, 4' – diaminobiphenyl)amide acid and its imide- Kinetic study of Polyamide acid and its Model Compounds, ACS meeting, Washington DC, Aug 20-24, 2000, Polymer Preprints, 41, 1393-1394 (2000)
81. K. P. Pramoda and T. S. Chung, Study of Crystallisation Kinetics in Zenitetm Thermotropic Liquid Crystalline Polymer, ACS meeting, Washington DC, Aug 20-24, 2000, Polymer Preprints, 41, 1391-1392 (2000)
82. Session chairmen for Synthesis, Processing & Characterization, Internation Conference on Materials for Advanced Technologies (ICMAT 2001), July 1-6, 2001, Singapore
83. Y. Liu, R. Wang, T. S. Chung, Chemical Cross-linking Modification of Polyimides for Gas Separation, p272, 6th World Congress of Chemical Engineering, Australia, 23-27, September, 2001.

84. T. S. Chung, R. Wang, D. F. Li, Separations Research at the Singapore National Institute of Materials Research and Engineering, Paper 12u, AIChE 2001 Annual Meeting, Reno, Nevada, Nov, 2001
85. T. S. Chung, Y. Liu, R. Wang, D. F. Li, M. L. Chng. Room -Temperature Chemical Cross-linking Modification of Polyimide Membranes, Paper 5b, AIChE 2001 Annual Meeting, Reno, Nevada, Nov, 2001
86. R. Wang , S. L. Liu, T. T. Lin, T. S. Chung, Characterization of Mixed Gas Permeation through Hollow Fiber Membranes, Material Engineering and Science Division, Poster 243, AIChE 2001Annual Meeting, Reno, Nevada, Nov, 2001
87. D. F. Li, T. S. Chung, Y. Liu, R. Wang. Fabrication of Dual-layer Asymmetric Hollow Fiber Membranes For Oxygen/Nitrogen Separation, Material Engineering and Science Division, Poster 266, AIChE 2001 Annual Meeting, Reno, Nevada, Nov, 2001.
88. S. S. Chan, R. Wang , Y. Liu, T. S. Chung, Gas Transport Properties of Poly(1,5-naphthalene-2,2'-bis(3,4-phthalic) hexafluoropropane) diimide Dense Membranes, , Material Engineering and Science Division, Poster 272, AIChE 2001Annual Meeting, Reno, Nevada, Nov, 2001.
89. T. S. Chung, Y. Liu, R. Wang, D. F. Li, M. L. Chng, High-Selectivity, Anti-plasticization Cross-linked Polyimide/Polyethersulfone Dual-layer Hollow Fiber Membranes, North American Membrane Society, Annual Conference, Long Beach, CA, May 13-15, 2002.
90. T. S. Chung and J. J. Qin, Visualization of Shear Rate Effect on the Outer Surface Morphology of Ultrafiltration Membranes by AFM, AIChE Annual Meeting, 3-8 November, 2002, Indianapolis, Indiana, USA.
91. T. S. Chung, C. Cao, J. Z. Ren, R. Wong, D. F. Li, M. L. Chng, W. W. Loh, Anti-Plasticization Enhancement of Asymmetric 6FDA-2,6 DAT Hollow Fiber Membranes for CO₂/CH₄ Separation, AIChE Annual Meeting, 3-8 November, 2002, Indianapolis, Indiana, USA.
92. C. Zhou, T.S. Chung, S. H. Goh, Experimental Observations and Theoretical Descriptions for Physical Aging of Thick and Thin Fluoro-polyimide Films, 9th Aachen Membrane Colloquium, Eurogress, Aachen, Germany, March 18 – 20, 2003
93. J. M. Xu, H. Y. Lim, C. Z. Zhou, Z. K. Chen, and T. S. Chung, Growth and Characterization of Nano-Scale Wire from a Series of Conjugated Oligomers 2003 Molecular Crystal Engineering Conference, Acquafredda di Maratea, Italy from May 31 to June 05, 2003
94. W. G. Guo, T. S. Chung, R. Wang, and Y. Liu, Pervaporation Study of Water and Tert-Butanol Mixture Systems, International Membrane Science and Technology Conference, 10-14 November 2003, Sydney, Australia.
95. P. S. Tin, T. S. Chung, Y. Liu, and R. Rong, Chemical Cross-linking Modification on Polyimide Membrane for Gas Separation, International Membrane Science and Technology Conference, 10-14 November 2003, Sydney, Australia
96. T. S. Chung, W. G. Guo, T. Matsuura, and R. Wang, Pervaporation Study of Water and Tert-Butanol Mixtures, AIChE Annual Meeting, 16-21 November 2003, San Francisco, California, United States.
97. T. S. Chung, M. L. Chng, K. P. Pramoda, and Y. Xiao, PAMAM Dendrimer Induced Cross-Linking Modification of Fluoropolyimide Membranes, AIChE Annual Meeting, 16-21 November 2003, San Francisco, California, United States.

98. L. Shao and T. S. Chung, Tuning The Gas Transport Performance of Carbon Molecular Sieve Membranes By The Morphological Changes Of 6FDA/PMDA-TMDA Precursors, The Regional Symposium on Membrane Science & Technology 2004, Malaysia, April 23-25, 2004
99. P. S. Tin and T. S. Chung, Novel Approaches To Fabricate Carbon Molecular Sieve Membranes Based On Chemical Modified And Solvent Treated Polyimides, The Regional Symposium on Membrane Science & Technology 2004, Malaysia, April 23-25, 2004.
100. Y. C. Xiao and T. S. Chung, Gas Separation By Carbon Molecular Sieves Membranes Prepared From Polyimides, The Regional Symposium on Membrane Science & Technology 2004, Malaysia, April 23-25, 2004.
101. Xiong J. Y., Liu X. Y., Chen S. B., Chung T. S., Surfactant Free Polymeric Nanoparticle Dispersions Fabricated by Combined Liquid-Liquid Phase Separation and Solvent/Nonsolvent Mixing Method, *E-MRS (EUROPEAN MATERIALS RESEARCH SOCIETY) Spring Meeting*, Strasbourg, France, 24-28 May 2004.
102. Teoh, M.M., Chung. T.S., and Pramoda. K.P., "Thin-film polymerization and metropolis Monte Carlo simulation of thermotropic liquid crystalline poly(ester-amide)s", *E-MRS (EUROPEAN MATERIALS RESEARCH SOCIETY) Spring Meeting*, Strasbourg, France, 24-28 May 2004.
103. Y. C. Xiao, S. Lu, M. L. Chng and T. S. Chung, Preparation and characterization of polyimide films modified by dendrimers, Annual Meeting of North American Membrane Society, Honolulu, Hawaii, June 26-30, 2004.
104. T. S. Chung, D. F. Li, L. Y. Jiang and C. Cao, The development of dual-layer asymmetric hollow fiber membranes for gas separation, 2004 Annual Meeting, November 7-12, Austin, TX
105. T. S. Chung, W. F. Guo, T. Matsuura, Pervaporation Study on the Dehydration of Aqueous Butanol Solutions, 2004 Annual Meeting, November 7-12, Austin, TX
106. Y. Xiao, T. S. Chung, M. L. Chng, S. Tamai and A. Yamaguchi, Structure & properties relationships for aromatic polyimides and their derived carbon membranes in gas separation application, 16th Annual Meeting of the North American Membrane Society, Providence, Rhode Island, USA, June 11-15, 2005.
107. Y. Li, T. S. Chung, S. Kulprathipanja, Enhanced gas separation performance in Polyethersulfone (PES)-zeolite mixed matrix membranes, 16th Annual Meeting of the North American Membrane Society, Providence, Rhode Island, USA, June 11-15, 2005.
108. X. Y. Qiao, T. S. Chung, Dense and asymmetric BTDA-TDI/MDI (P84) co-polyimide membranes for pervaporation dehydration of isopropanol, 16th Annual Meeting of the North American Membrane Society, Providence, Rhode Island, USA, June 11-15, 2005.
109. L. Y. Jiang, T. S. Chung, S. Kulprathipanja, Fabrication and characterization of the dual-layer hollow fiber with a zeolite/polymer mixed matrix skin for gas separation, 16th Annual Meeting of the North American Membrane Society, Providence, Rhode Island, USA, June 11-15, 2005
110. T. S. Chung, D.F. Li, L.Y. Jiang, Y. Li, S. Kulprathipanja, Morphological and structure control of dual-layer hollow fiber membranes formed by a phase-inversion co-extrusion approach, 16th Annual Meeting of the North American Membrane Society, Providence, Rhode Island, USA, June 11-15, 2005.

111. Y. C. Xiao, T. S. Chung, The effects of thermal treatment and dendrimers chemical structures on the properties of highly surface cross-linked polyimide films, E-MRS 2005 Spring Meeting, Strasbourg, France, May 31-June 3 2005.
112. Y. Li, T.S. Chung, S. Kulprathipanja, Enhanced gas separation performance in polyethersulfone (PES)-modified zeolite mixed matrix membranes, presented in AIChE Annual Meeting 2005, Cincinnati, OH, USA, 30 Oct-04 Nov 2005.
113. R. X. Liu, X. Yi. Qiao, T. S. Chung, The pervaporation dehydration of isopropanol by BTDA-TDI/MDI (P84) co-polyimide membranes presented in AIChE Annual Meeting 2005, Cincinnati, OH, USA, 30 Oct-04 Nov 2005.
114. T. S. Chung, L. Y. Jiang, Y. Li, S. Kulprathipanja, Fabrication and characterization of zeolite/polymer mixed matrix nano-composite hollow fiber membranes presented in AIChE Annual Meeting 2005, Cincinnati, OH, USA, 30 Oct-04 Nov 2005.

INVITED SEMINARS IN UNIVERSITIES, INSTITUTES AND COMPANIES

115. T. S. Chung, Crystallization kinetics of Mitsui Toatsu liquid crystalline polyimide, Mitsui Toatsu R & D headquarters, Japan, April 25, 1997
116. T. S. Chung, Polymer research and development in the Institute of Materials Research and Engineering (IMRE), Hoechst Celanese R & D center, Summit, New Jersey, USA, April 28, 1997
117. T. S. Chung, Polymer research and development in Singapore, Institute of Chemistry, Chinese Academic Sciences, Beijing, China, Sept 9, 1997
118. T. S. Chung, Materials development in Singapore, Institute of Chemical Metallurgy, Chinese Academic Sciences, Beijing, China, Sept 10, 1997
119. T. S. Chung, Introduction of polymeric materials development in Singapore, Shanghai Organic Institute, Chinese Academic Sciences, Shanghai China, Sept 12, 1997
120. T. S. Chung, Fundamental polymers and membrane research in Singapore, Department of Chemistry, Fudan University, Shanghai, China, Sept 13, 1997
121. T. S. Chung, Fluoropolyimides, Shanghai Organic Institute, Chinese Academic Sciences, Shanghai China, Oct 15, 1997
122. T. S. Chung, Surface energy and thin film polymerization of LCP polymers, Dept. of Materials Science, Teinjin University, Teinjin, China, March 10, 1998
123. T. S. Chung, Thin film polymerization of poly(2,6-oxynaphthoate/p-oxybenzoate) copolymers, Dept. of Chemical Engineering, Tsing Hua University, Beijing, China, March 11, 1998
124. T. S. Chung, Polymers Research in Singapore, Dow Chemicals, Michigan, April 21, 1998
125. T. S. Chung, Materials Research and Engineering in Singapore: Advanced Polymers, 2. Thin Film Polymerization, 3. Polymeric Membranes, U. of Michigan, Ann Arbor, Michigan, April 22, 1998
126. T. S. Chung, Membrane Development and Materials Research in IMRE, Dalian Institute of Chemical Physics, Dalian, China Nov 4, 1998

127. T. S. Chung, Recent Development of Polyimides, Native Poisson Ratio Materials, Tube-like Silicone Polymeric Membranes, Dow Corning, Michigan, March 1, 1999
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