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Professor

B.S. in Chemical Engineering
National Taiwan University, 1983
Ph.D. in Chemical Engineering
Pennsylvania State University, 1992

Research and Professional Interests

Membrane separation technology
Preparation of polymeric membranes
Biomaterials and Tissue engineering

Journal Papers

1. C. L. Lai, Y. J. Fu, J. T. Chen, **D. M. Wang**, Y. M. Sun, S. H. Huang, W. S. Hung, C. C. Hu and K. R. Lee, "Composite of cyclic olefin copolymer with low graphene content for transparent water-vapor-barrier films", *Carbon*, 90, 85-93, 2015(Aug), (SCI)
2. R. Y. Tsai, T. Y. Kuo, S. C. Hung, C. M. Lin, T. Y. Hsien, **D. M. Wang** and H. J. Hsieh, "Use of gum arabic to improve the fabrication of chitosan-gelatin-based nanofibers for tissue engineering", *Carbohydrate Polymers*, 115, 525-532, 2015(Jan), (SCI), 合著
3. P. C. Li, G. M. Liao, S. R. Kumar, C. M. Shih, C. C. Yang, **D. M. Wang** and S. J. Lue, "Fabrication and Characterization of Chitosan Nanoparticle-Incorporated Quaternized Poly(Vinyl Alcohol) Composite Membranes as Solid Electrolytes for Direct Methanol Alkaline Fuel Cells", *Electrochimica Acta*, 187, 616-628, 2016(Jan), (SCI)
4. W. C. Wu, **D. M. Wang**, Y. C. Lin, C. A. Dai, K. C. Cheng, M. S. Hu and B. S. Lee, "Hydrogen bonds of a novel resin cement contribute to high adhesion strength to human dentin", *Dental Materials*, 32(1), 114-124, 2016(Jan), (SCI)
5. W. L. Hung, **D. M. Wang**, J. Y. Lai and S. C. Chou, "On the initiation of macrovoids in polymeric membranes - effect of polymer chain entanglement", *Journal of Membrane Science*, 505, 70-81, 2016(May), (SCI)
6. S. L. Su, **D. M. Wang** and J. Y. Lai, "Critical residence time in metastable region - a time scale determining the demixing mechanism of nonsolvent induced phase separation", *Journal of Membrane Science*, 529, 35-46, 2017(May), (SCI)
7. Y. H. Li, **D. M. Wang**, T. Y. Hsien, K. Y. Chan and J. Y. Lai, "Polymer Inclusion Membranes with Strip Dispersion", *Water*, 9(6), 399, 2017(Jun), (SCI)
8. P. S. Huang, C. Y. Su, C. H. Lam, W. Y. Lee, **D. M. Wang**, C. C. Hua and D. Y. Kang, "Direct wet deposition of zeolite FAU thin films using stabilized colloidal suspensions", *Microporous and Mesoporous Materials*, 272, 286-295, 2018(Dec), (SCI), 合著
9. P. S. Huang, C. H. Lam, C. Y. Su, Y. R. Chen, W. Y. Lee, **D. M. Wang**, C. C. Hua and D. Y. Kang, "Scalable Wet Deposition of Zeolite AEI with a High Degree of Preferred Crystal Orientation", *Angewandte Chemie-International Edition*, 57(40), 13271-13276, 2018(Oct), (SCI), 合著
10. T. Y. Kuo, C. M. Lin, S. C. Hung, T. Y. Hsien, **D. M. Wang** and H. J. Hsieh, "Incorporation and selective removal of space-forming nanofibers to enhance the permeability of cytocompatible nanofiber membranes for better cell growth", *Journal of the Taiwan Institute of Chemical Engineers*, 91, 146-154, 2018(Oct), (SCI), 合著

11. L. Cheng, **D. M. Wang**, A. R. Shaikh, L. F. Fang, S. Jeon, D. Saeki, L. Zhang, C. J. Liu and H. Matsuyama, "Dual Superlyophobic Aliphatic Polyketone Membranes for Highly Efficient Emulsified Oil-Water Separation: Performance and Mechanism", *Acs Applied Materials & Interfaces*, 10(36), 30860-30870, 2018(Sep), (SCI)
12. L. Cheng, A. R. Shaikh, L. F. Fang, S. Jeon, C. J. Liu, L. Zhang, H. C. Wu, **D. M. Wang** and H. Matsuyama, "Fouling-Resistant and Self-Cleaning Aliphatic Polyketone Membrane for Sustainable Oil-Water Emulsion Separation", *Acs Applied Materials & Interfaces*, 10(51), 44880-44889, 2018(Dec), (SCI)
13. N.T.T Dang, **D. M. Wang**, S.Y. Huang and K.T. Tran, "Recovery of indium by using extraction-stripping with membrane oil-water separators", *Separation and Purification Technology*, 235, 2020(Mar), (SCI)

Conference Papers

1. W.L. Hung, **D.M. Wang** and J.Y. Lai, "The relationship between viscoelasticity of polymer solution and formation of macrovoids during wet immersion process", AMS9 (Aseanian Membrane Society), Taipei Taiwan, 2015(Jul)
2. S.L. Su, W.L. Hung, **D.M. Wang** and J.Y. Lai, "Criteria for spinodal decomposition and nucleation and growth mechanisms by immersion precipitation process", AMS9 (Aseanian Membrane Society), Taipei Taiwan, 2015(Jul)
3. W.C. Wu, T.Y. Liao and **D.M. Wang**, "Zirconium phosphate modified graphene oxide as an efficient adsorbent for rare earth metal ions", AMS9 (Aseanian Membrane Society), Taipei Taiwan, 2015(Jul)
4. **D.M. Wang**, S.L. Su, W.L. Hung and J.Y. Lai, "Formation of pores in polymeric membranes --- a thermodynamically or kinetically controlled process?", The 8th Sino-US Joint Chemical Engineering Conference, Shanghai China, 2015(Oct), (Keynote Speaker)
5. **D.M. Wang**, W.L. Hung, S.L. Su and J.Y. Lai, "Roles of polymer chain entanglement in determining membrane morphology", 2015 AIChE Annual Meeting, Salt lake City Utah USA, 2015(Nov)
6. **D.M. Wang**, S.L. Su, W.L. Hung and J.Y. Lai, "Membrane morphology control and polymer solution rheology", 2015 International Chemical Congress of Pacific Basin Societies [Pacifichem 2015], Honolulu Hawaii USA, 2015(Dec)
7. Y.H. Li, W.C. Wu, T.Y. Hsien, H.J. Hsieh, J.Y. Lai and **D.M. Wang**, "Application of supported liquid membranes with strip dispersion recovery and separation of metal ions", AMS10 (Aseanian Membrane Society), Nara Japan, 2016(Jul)
8. **D.M. Wang**, "Important times scales in formation of membrane pores --- insight into macrovoid initiation and control of pore connectivity", AMS10 (Aseanian Membrane Society), Nara Japan, 2016(Jul)
9. **D.M. Wang**, "Recovery and separation of rare earth metal ions by using supported liquid membranes with strip dispersion", 2018 SCEJ Annual Meeting, Osaka Japan, 2018(Mar)

10. **D.M. Wang**, C.L. Li and A. Deratani, "Effect of polymer crystallization on the morphology of membranes prepared with nonsolvent induced phase separation", AMS 11 (Aseanian Membrane Society), Brisbane Australia, 2018(Jul), (Keynote Speaker)
11. **D.M. Wang**, Y.L. Liu, W.S. Hung and J.Y. Lai, "Chitosan-containing membranes for pervaporation dehydration of alcohols", 11th ICCS, Osaka Japan, 2018(Aug)
12. **D.M. Wang**, I.W. Chang, J.Y. Han, T.Y. Hsien and H.J. Hsieh, "Recovery and separation of rare earth metal ions by using supported liquid membranes", Advanced Separation Science and Engineering 2018, Hanoi Vietnam, 2018(Dec)
13. **D.M. Wang**, "Roles of the Rheology of Casting Solution in Determining the Morphology of Polymeric Membranes", AMS12 (Aseanian Membrane Society), Jeju Korea, 2019(Jul), (Keynote Speaker)

Honors and Others

1. Editor, *Journal of Chemical Engineering of Japan*, 2009-now
2. Editorial Board, *Journal of Taiwanese Institute of Chemical Engineers*, 2006-2015
3. Editorial Board, *Applied Membrane Science and Technology*, 2005-now
4. 台大慶齡工業研究中心副主任 (2007/8-2011/7)/ 台大慶齡工業研究中心主任 (2011/8-2013/7)
5. 輸送現象暨應用研討會籌備委員 (2001-2009)
6. Scientific Committee Member, AMS5, AMS7, AMS8 (Aseanian Membrane Society) 2009, 2012, 2013.
7. 台灣大學「教學優良獎」2013
8. 台灣大學「教學優良獎」2017