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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. 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)
2. 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)
3. 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
4. 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
5. 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
6. 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)
7. 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)
8. 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)
9. T.-H. Chen, Y.-A. Chen, S.-W. Tsai, **D.-M. Wang**, C.-H. Hou "Development of an integrated capacitive-electrodialysis process (CapED) for continuous, low-energy electrochemical deionization," *Separation and Purification Technology*, 274, 119063, 2021, (SCI)

Conference Papers

1. **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)
2. **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)
3. **D.M. Wang**, Y.L. Liu, W.S. Hung and J.Y. Lai, "Chitosan-containing membranes for pervaporation dehydration of alcohols", 11th ICCC, Osaka Japan, 2018(Aug)
4. **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)
5. **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)

Patents

1. 賴君義、何明樺、郭佩芸、謝學真、謝子陽、**王大銘**, “生物基材之形成方法”,中華民國發明專利第 233943 號,(2005/6-2023/12)
2. 謝國煌、黃榮山、楊申語、**王大銘**、張培仁、張致遠、陳偉源, “用於光電製程之微轉印方法”, 中華民國發明專利第 252181 號,(2006/4-2023/8)
3. 賴君義、**王大銘**、李魁然、高瑟聰、郭佩芸、蘇郁蕙, “用於分離有機溶液之複合膜材及其形成方法”, 中華民國發明專利第 262819 號,95.8.21, 2006/10/1-2023/7/24.
4. 賴君義、**王大銘**、李魁然、郭佩芸、蘇郁蕙, “具奈米級無機微粒之幾丁聚醣薄膜及其形成方法”, 中華民國發明專利第 262934 號, 美國發明專利第 7094372 號, 95/5/4, 2006/8/22-2026/8/22
5. 謝子陽、韓佳耘、**王大銘**、謝學真、李清華、劉玉玲, “一種分離稀土金屬釔和鈕的方法” , 中華民國發明專利第 I537036 號, 105/6/11, 2016/6/11-2034/11/13
6. 謝子陽、韓佳耘、**王大銘**、謝學真、李清華、劉玉玲、黃進文, “一種回收稀土金屬鈮離子和鑭離子的方法” , 中華民國發明專利第 I537220 號, 105/6/11, 2016/6/11-2035/9/6

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

