



(Neal) T. S. Chung
D. Phil. (SUNY Buffalo)
Professor, Department of Chemical & Biomolecular Engineering
National University of Singapore
Blk E4, Room 5-40, Phone: 6874-6645
E-mail: Chencts@nus.edu.sg

EDITORIAL BOARD MEMBER OF

1. *Journal of Membrane Science*
 2. *Chemical Engineering Journal*
 3. *Separation and Purification Reviews*
 4. *Polymer Engineering and Science*
 5. *Journal of Applied Polymer Science*
 6. *Recent Patents on Engineering*
- Editor for the *Applied Membrane Science and Technology Journal*
 - Author of 1 polymer book, 11 book chapters, 260 journal papers, 120 conference papers
 - Inventor of more than 60 patents and several commercial products
 - 15-years of industrial R & D experience in USA (13 years at Hoechst Celanese)
 - Member of the team that commercialized the Vectra™ liquid crystalline polymer business with an annual business size of US \$150 million
 - Consultant for Air Products (1998-1999)
 - Senior consultant for Hyflux (2004-now)

MAJOR RESEARCH INTERESTS

1. Membrane for protein and chiral separation
2. UF and NF membranes for water recycle, MBR, protein and bio-molecule separation
3. Gas separation membranes for H₂/CO₂, O₂/N₂, H₂/CO₄, and other C₂ and C₃ hydrocarbons
4. Mixed matrix nano-composite membranes for gas, biofuel and alcohol separation
5. Pervaporation membranes for water recycle, solvent separation and biopharmaceutical syntheses
6. New materials characterization and membrane development for kidney dialysis applications
7. Carbon membranes for gas separation

RECENT REPRESENTATIVE PUBLICATIONS

1. Y. C. Xiao, T. S. Chung, Functionalization of cellulose dialysis membranes for chiral separation using beta-cyclodextrin immobilization, *J. Membrane Science*, 290, 78–85 (2007).
2. K. Y. Wang and T. S. Chung, Polybenzimidazole nanofiltration hollow fiber for Cephalexin separation, *AIChE, J.* 52, 1363-1377 (2006).
3. L. Y. Jiang, T. S. Chung, S. Kulprathipanja A novel approach to fabricate mixed matrix hollow fibers with superior intimate polymer/zeolite interface for gas separation, *AIChE J.* 52, 2898 - 2908 (2006).
4. Q. Yang, J. W. Jiang, T. S. Chung, N. M. Kocherginsky, Experimental and computational studies of membrane extraction of Cu(II) in supported liquid membranes, *AIChE J.* 52, 3266–3277 (2006).
5. T. S. Chung, W. F. Guo and Y. Liu Enhanced Matrimid membranes for pervaporation by homogenous blends with polybenzimidazole (PBI), *J. Membrane Science*, 271, 221–231 (2006).
6. K. Y. Wang, Y. C. Xiao, T. S. Chung, Chemically modified polybenzimidazole nanofiltration membrane for the separation of electrolytes and Cephalexin, *Chemical Engineering Science*, 5507 – 5517 (2006).
7. Y. Li, T. S. Chung, Z. Huang, S. Kulprathipanja, Dual-layer polyethersulfone (PES)/BTDA-TDI/MDI copolyimide (P84) hollow fiber membranes with a submicron PES–zeolite beta mixed matrix dense-selective layer for gas separation, *J. Membrane Science*, 277, 28–37 (2006).
8. T. S. Chung, L. Shao, P. S. Tin, Surface modification of polyimide membranes by diamines for H₂ and CO₂ Separation, *Macromolecular Rapid Communication*, 27, 998-1003 (2006).