

SMTC Published Papers
(Books, Chapters, Journals, Conference Papers & Keynote)

2008

In SCI Journals

1. Chong, T.H., Wong, F.S. and Fane, A.G., Implications of critical flux and cake enhanced osmotic pressure (CEOP) on colloidal fouling in Reverse Osmosis: Experimental Observations, *Journal of Membrane Science*, 314 (1-2) (2008) 101-111.
2. Chong, T.H., Wong, F.S. and Fane, A.G., The effect of imposed flux on biofouling in reverse osmosis: role of concentration polarization and biofilm enhanced osmotic pressure phenomena, *Journal of Membrane Science*, 325 (2) (2008) 840-850.
3. Phattaranawik, J., Fane, A.G., Pasquier, A.C.S and Wu, B., A novel membrane bioreactor based on membrane distillation, *Desalination*, 223 (2008) 386-395.
4. Phattaranawik, J., Fane, A.G. and Wong, F.S., Novel membrane-based sensor for online membrane integrity monitoring, *Journal of Membrane Science*, 323 (1) (2008) 113-124.
5. Zhang, Y.P, Chong, T.H., Fane, A.G., Law, A., Coster, H.G.L and Winters, H., Implications of enhancing critical flux of particulates by AC fields in RO desalination and reclamation, *Desalination*, 220 (2008) 371-379.

Books/Chapters

6. Fane, A.G. and Chang, S., Techniques to enhance the performance of Membrane processes, Chapter 8 in 'Handbook of Membrane Separations; Chemical, Pharmaceutical and Biotechnological Applications', Pabby, Rizvi and Sastre (Eds), ISBN: 9780849395499, ISBN 10: 0849395496, CRC Press (2008).
7. Fane, A.G., Submerged membranes, Chapter in 'Advanced Membrane Technology and Applications', Li, N., Fane, A.G., Ho, W.S. and Matsuura, T (Eds), ISBN: 978-0-471-73167-2, Wiley, (2008).
8. Li, N., Fane, A.G., Ho, W.S. and Matsuura, T (Eds), 'Advanced Membrane Technology and Applications', ISBN: 978-0-471-73167-2, Wiley, (2008).

Conference/Invited

1. Fane, A.G., Schwinge, J., Genkin, G., Hilal, N. and Chong, T.H., Review of Colloidal Fouling in Spiral Wound Modules, report for Middle East Desalination Research Centre, Muscat, Oman, 2008.
2. Fane, A.G., A novel integrity sensor for low pressure membranes, Engineering with Membranes – Algarve, Portugal, May 2008.
3. Fane, A.G., The energy challenges for membranes in the water industry, Invited, 1st UK-Israel Workshop on water – Oxford, June 2008.
4. Fane, A.G., Reverse osmosis fouling: characterization, critical flux and cake-enhanced osmotic pressure, Invited, 2nd Oxford Water & Membranes Research Event- Oxford, June 2008.
5. Fane, A.G., I. Membranes & water: achievements & challenges. II. The energy challenges for membranes and water, Invited, Assoc. of Environmental Engineering Scientists & Profs –Distinguished lecturer series (6 Universities) USA, November 2008.
6. Wang, R., Development of novel membrane contactors for CO₂ capture, Invited, Chemical and Pharmaceutical Engineering (CPE) Workshop on Pharmaceutical Sciences, Purification and Separation, Singapore, 13 May 2008.

Keynote

1. Fane, A.G., Advances in membrane technology for the water industry: achievements, challenges and the future, IWA Leading Edge Conference – Zurich, June 2008.
2. Fane, A.G., Membranes and water: the role of hybrid processes, International Congress on Membranes – Hawaii, July 2008.
3. Fane, A.G., Membranes for the water cycle, 6th Regional Symp.on Membrane Science & Technology – Phuket, Thailand, July 2008.
4. Fane, A.G., Membrane separations – 100 years of achievements and challenges, American Institute of Chemical Engineers Annual Meeting – Philadelphia, November 2008.

2009

In SCI Journals

1. Chong, T.H. and Fane, A.G., Implications of Critical Flux and Cake Enhanced Osmotic Pressure (CEOP) on Colloidal Fouling in Reverse Osmosis: Modeling Approach, *Desalination & Water Treatment*, 8 (2009) 68-90.
2. Jia, Y., Wang, R. and Fane, A.G., Hybrid PAC-submerged membrane system for trace organics removal II: System simulation and application study, *Chemical Engineering Journal*, 149 (1-3) (2009) 42-49.
3. Jia, Y., Wang, R. and Fane, A.G., Hybrid PAC-submerged membrane system for trace organics removal I: Adsorption kinetics study of PAC in a bubbled solution, *Chemical Engineering Journal*, 155 (1-2) (2009) 155- 160.
4. Phattaranawik, J., Fane, A.G., Pasquier, A.C.S., Wu, B. and Wong, F.S., Experimental study and design of submerged membrane distillation bioreactor, *Chemical Engineering & Technology*, 32 (1) (2009) 38-44.
5. Phattaranawik, J., Fane, A.G. and Pasquier, A.C.S., Studies of air slug distributions and preliminary fouling by optical monitoring in a side-stream membrane module, *Separation Science & Technology*, 44(16) (2009) 3793-3813.
6. Shao, D.D. and Law, A., Turbulent mass and momentum transport of a circular offset dense jet, *Journal of Turbulence*, 10 (40) (2009) 1-24.
7. She, Q., Tang, C. Y., Wang, Y. N. and Zhang, Z. The role of hydrodynamic conditions and solution chemistry on protein fouling during ultrafiltration, *Desalination*, 249 (3) (2009) 1079-1087.
8. Shi, L., Wang, R. and Cao, Y.M., Effect of the rheology of poly (vinylidene fluoride-co-hexafluoropropylene) (PVDF-HFP) dope solutions on the formation of microporous hollow fibers used as membrane contactors, *Journal of Membrane Science*, 344 (1-2) (2009) 112-122.
9. Tang, Q., Jiang, W.J., Zhang, Y., Wei, W.Y., and Lim, T.M., Degradation of Azo Dye Acid Red 88 by Gas Phase Dielectric Barrier Discharges, *Plasma Chemistry and Plasma Processing*, 29 (4) (2009) 291-305.
10. Wicaksana, F., Fane, A.G. and Law, A., The use of constant temperature anemometry for permeate flow distribution measurement in a submerged hollow fibre system, *Journal of Membrane Science*, 339 (1-2) (2009) 195-203.

Books/Chapters

11. Fane, A.G., Chong, T.H and Le-Clech, P., Fouling in Membrane Processes, Chapter 6 in Membrane Operations, Innovative Separations and Transformations, Drioli, E. and Giorno, L. (Eds), ISBN: 978-3-527-32038-7, Wiley –VCH, (2009).

Conference/Invited

1. Chong, T.H., Fane, A. G., Zhang, J. S. and Lay, W. C. L., The effect of flux and pressure on fouling in reverse osmosis desalination, In: IDA World Congress 2009 on Desalination and Water Reuse, Paper # DB09 – 128, Dubai, UAE.
2. Fane, A.G., Monitoring membrane processes for improved performance, Invited, AWA Membrane Technology Conference – Sydney, February 2009.
3. Fane, A.G., I. Membranes & water: achievements & challenges. II. The energy challenges for membranes and water, Invited, Assoc.of Environmental Engineering Scientists & Profs – Distinguished lecturer series (6 Universities) USA, February 2009.
4. Fane, A.G., Membranes for the water cycles: needs & challenges, Invited, ACS Advances in materials & processes for polymer Membranes in water purification – Asilomar, USA, February 2009.
5. Fane, A.G., MBRs & the TMP jump – self accelerating fouling phenomena, Invited, EU MBR-Network Workshop – Berlin, March 2009.
6. Lay, W.C., Chong, T.H., Tang, C.Y., and Fane, A.G., Fouling propensity of forward osmosis, Oral Presentation, the 6th Leading Edge Conference on Water and Waste Water Technologies, 23-25 June 2009, SunTec City, Singapore.
7. Lay, W. C. L., Fouling propensity of osmotic membrane bioreactor, Poster Presentation, Asia-Oceania Top University League on Engineering (AOTULE) Postgraduate Conference, 2009, Taipei, National Taiwan University.
8. Lay, W. C. L., S. Goh, Y. Liu and Fane, A. G., Batch studies of biological reactions under varying salt conditions for application in salt retentive membrane bioreactor systems, Young Water Talents Symposium, Singapore International Water Week, 22 June 2009, Suntec City, Singapore.
9. Setiawan, L. and Wang, R., Polyelectrolyte Modification of Poly(amide-imide) Hollow Fiber Membrane for Nanofiltration; Young Water Talents Symposium, Singapore International Water Week, 28 June 2009, SunTec City, Singapore.
10. Shankari, D. and Wang, R., Forward Osmosis in Membrane Separations – An Overview, Young Water Talents Symposium, Singapore International Water Week, 28 June 2009, SunTec City, Singapore.
11. Tang, C.Y., She, Q., Lay, W., Fane, A. G., Wang, R., and Leckie, J. O., Characterization of RO and FO membranes for desalination and water reuse, Oral

- Presentation, the 6th Leading Edge Conference on Water and Waste Water Technologies, 23-25 June 2009, SunTec City, Singapore.
12. Tang, C.Y., Surface characterization of membranes, Invited Oral Presentation, Singapore Membrane Technology Centre Special Workshop in Sensors and Monitoring Systems in Water and Membranes, 13 August 2009, WaterHub, Singapore.
 13. Tang, C.Y., Membrane technology for clean water and clean energy applications, Invited , September 2009, Department of Civil Engineering, the University of Hong Kong, Hong Kong.
 14. Tang, C.Y., She, Q., Lay, W., Fane, A. G., and Leckie, J. O., Fouling of reverse osmosis and forward osmosis by humic acid – similarities and differences, Oral Presentation, 2009 AIChE Annual Meeting, 8-13 November 2009, Nashville, Tennessee.
 15. Wang, R. and Shi, L., Development of novel membrane contactors for CO₂ capture from combustion processes, the 7th International Conference on Membrane Science & Technology, Invited, 12-15 May 2009, Kuala Lumpur, Malaysia
 16. Wang, R., Shi, L. and Cao, Y.M., Preparation of novel hydrophobic hollow fibres for membrane contactors, 6th IWA Leading-Edge Conference on water and Waste Water Technologies, 22-26 June 2009, Singapore.
 17. Wang, Y.C., and Tang, C.Y. “Interaction of endocrine disrupting chemicals with reverse osmosis and nanofiltration membranes,” Oral Presentation, Young Water Talent Symposium, June 22, 2009, SunTec City, Singapore.
 18. Wang Y.C., and Tang, C.Y. Interaction of endocrine disrupting chemicals with reverse osmosis and nanofiltration membranes, Poster Presentation, the 5th IWA Specialized Membrane Technology Conference, 1-3 September 2009, Beijing, China.
 19. Wang, Y.C., Tang, C.Y., Mengote, D.M.P., Sheth, P.M., and Fane, A.G., Interaction of endocrine disrupting chemicals with reverse osmosis and nanofiltration membranes, Oral Presentation, World Congress on Desalination and Water Reuse, 8-11 November 2009, Altantis, Dubai.
 20. Wang, Y.N., and Tang, C.Y. BSA fouling of reverse osmosis and nanofiltration membranes, Oral Presentation, Young Water Talent Symposium, 22 June 2009, SunTec City, Singapore.
 21. Wei, J., Tang, C.Y. and Wang. R., Modeling the Effect of Membrane Permeability and Structure on Forward Osmosis Performance, Young Water Talents Symposium, Singapore International Water Week, 28 June 2009, SunTec City, Singapore.
 22. Wicaksana, F., Law, A. And Fane, A.G., Monitoring of permeate flow distribution in submerged hollow fibre membranes, Membrane Science and Technology Conference, 12-15 May 2009, Kuala Lumpur, Malaysia.

Keynote

1. Fane, A.G., Membrane technology in the water industry : achievements and challenges, WISA Int. Memb Tech. Conf. – Stellenbosch, South Africa , May 2009.
2. Fane, A.G., Membrane technology – potential for a lower carbon future, Challenges in Env. Sci. and Technology – Townsville, July 2009.
3. Fane, A.G., Goh, G., Lay, W., Li, J., Liu, Y., Tang, C.Y., Wai, N., Wang, R., Wong, F.S. and Zhang, J., The challenge of novel membrane bioreactors with high retention membranes, Keynote Presentation, the 5th IWA Specialized Membrane Technology Conference, 1-3 September 2009, Beijing, China
4. Yeo, A., Water for Business, Academia and NGOs, Keynote Address, Ministry of Environment and Water Resources (MEWR), Sharing and Learning Session (SLING), 16 October 2009.

2010

In SCI Journals

1. Chou, S., Shi, L., Wang, R., Tang, C.Y., Qiu, C. and Fane, A.G., Characteristics and potential applications of a novel forward osmosis hollow fiber membrane, *Desalination*, 261 (2010) 365-372.
2. Feng, C.S., Wang, R., Wu, Y. and Li, G., Preliminary analysis of a linear pore pattern formed on poly(vinylidene fluoride-co-hexafluoro propylene) porous membrane surfaces, *Journal of Membrane Science*, 352 (2010) 255-261.
3. Gao, B., Lim, T.M., Subagio, D.P., and Lim, T.T., Zr-doped TiO₂ for enhanced photocatalytic degradation of bisphenol A, *Applied Catalysis A: General* 375 (1) (2010) 107-115.
4. Krantz, W.B., Greenberg, A. R. and Hellman, D.J., Dry-casting: Computer simulation, sensitivity analysis, experimental and phenomenological model studies, *Journal of Membrane Science*, 354 (1-2) (15 May 2010) 178-188.
5. Lay, W.C.L., Liu, Y. and Fane, A.G., Impacts of salinity on the performance of high retention membrane bioreactors for water reclamation: a review, *Water Research*, 44 (1) (2010) 21-40.
6. Lay, W.C.L., Chong, T.H., Tang, C.Y., Fane, A.G., Zhang, J.S. and Liu, Y., Fouling propensity of forward osmosis : investigation of the slower flux decline phenomenon, *Water Science & Technology*, 61 (4) (2010) 927-936.
7. Lee, H.Y., Krantz, W.B. and Hwang, S-T., A model for wet-casting polymeric membranes incorporating nonequilibrium interfacial dynamics, vitrification and convection, *Journal of Membrane Science*, 354 (1-2) (15 May 2010) 74-85.
8. Lim, T.T., Yap, P.S., Srinivasan, M., and Fane, A.G., TiO₂/AC composites for synergistic adsorption-photocatalysis processes: present challenges and further developments for water treatment and reclamation, *Critical Reviews in Environmental Science and Technology*, In press (2010).
9. Ng, C.A., Sun, D., Zhang, J., Wu, B. and Fane, A.G., Mechanisms of fouling control in membrane bioreactors by the addition of powdered activated carbon, *Separation Science & Technology*, 45 (7) (2010) 873- 889.
10. Roh, Il.Juhn., Ramaswamy, S., Krantz, W.B. and Greenberg, A. R., Poly(ethylene chlorotrifluoroethylene) membrane formation via thermally induced phase separation (TIPS), *Journal of Membrane Science*, 362 (1-2) (15 October 2010) 211–220.
11. Subagio, D.P., Srinivasan, M., Lim, M., and Lim, T.T., Photocatalytic degradation of Bisphenol-A by nitrogen-doped TiO₂ hollow sphere in a vis-LED photoreactor, *Applied Catalysis B: Environmental* 95 (2010) 414–422.

12. Tang, C.Y., She, Q., Lay, W.C.L., Wang, R. and Fane, A.G., Coupled effects of internal concentration polarization and fouling on flux behaviour of Forward Osmosis membranes during humic acid filtration, *Journal of Membrane Science*, 354 (1-2) (2010) 123-133.
13. Wang, R., Shi, L., Tang, C.Y., Chou, S., Qiu, C. and Fane, A.G., Characterization of novel forward osmosis hollow fiber membranes, *Journal of Membrane Science*, 355 (1-2) (15 June 2010) 158-167.
14. Wang, Y., Wicaksana, F., Tang, C.Y. and Fane, A.G., Direct microscopic observation of forward osmosis membrane fouling, *Environmental Science & Technology*, 44 (2010) 7102-7109.
15. Wongchitphimon, S., Wang, R., Jiraratananon, R., Shi, L. and Loh, C. H., Effect of polyethylene glycol (PEG) as an additive on the fabrication of polyvinylidene fluoride-co-hexafluoropropylene (PVDF-HFP) asymmetric microporous hollow fiber membranes, *Journal of Membrane of Science*, (2010), doi:10.1016/j.memsci.2010.12.008.
16. Wu, B., Yi, S. and Fane, A.G., Microbial behaviors involved in cake fouling in membrane bioreactors under different solids retention times, *Bioresource Technology*, 102 (2011) 2511-2516.
17. Xu, Y., Peng, X., Tang, C.Y., Fu, Q. S. and Nie, S., Effect of draw solution concentration and operating conditions on forward osmosis and pressure retarded osmosis performance in a spiral wound module, *Journal of Membrane Science*, 348 (1-2) (2010) 298-309.
18. Yap, P.S., Lim, T.T., Lim, M., and Srinivasan, M., Synthesis and characterization of nitrogen-doped TiO₂/AC composite for the adsorption-photocatalytic degradation of aqueous bisphenol-A using solar light, *Catalysis Today* 151 (2010) 8–13.
19. Zhang, J.S., Zhou, J.T., Su, Y-C. and Fane, A.G., Transient performance of MBR with flux enhancing polymer addition, *Separation Science & Technology*, 45 (7) (2010) 982-992.
20. Zhang, J.S., Zhou, J.T., Liu, Y. and Fane, A.G., A comparison of membrane fouling under constant and variable organic loadings in Submerge Membrane Bioreactors, *Water Research*, Accepted (Online).
21. Zhang, Y.P., Fane, A.G. and Law, A.W.K., Critical flux and particle deposition of fractal flocs during crossflow microfiltration, *Journal of Membrane Science*, 353 (1-2) (2010) 28-35.
22. Zhang, Y.P., Law, A.W.K. and Fane, A.G., Determination of critical flux by mass balance technique combined with direct observation image analysis, *Journal of Membrane Science*, 365 (1-2) (2010) 106 – 113.
23. Zhou, T., Lim, T.T., Li, Y., Lu, X., and Wong, F.S., The role and fate of EDTA in ultrasound-enhanced zero-valent iron / air system, *Chemosphere* 78 (2010) 576–582.

Books/Chapters

24. Fane, A.G., Wang, R. and Jia, Y., “Membrane Technology: Past, Present and Future”, in Membrane and Desalination Technologies, Handbook of Environmental Engineering, 2008, Volume 13, Lawrence K. Wang, J. Paul Chen, Yung-Tse Hung and Nazih K. Shamma (eds), 1-45, DOI: 10.1007/978-1-59745-278-6_1 <http://www.springerlink.com/content/t386t88x222kg006/>
25. Ren, J.Z. and Wang, R., “Preparation of polymeric membranes”, in Membrane and Desalination Technologies, Handbook of Environmental Engineering, 2008, Volume 13, Lawrence K. Wang, J. Paul Chen, Yung-Tse Hung and Nazih K. Shamma (eds), 47-100, DOI: 10.1007/978-1-59745-278-6_2 <http://www.springerlink.com/content/r8147713x121431k/>

Conference/Invited

1. Do, T.V., Tang, C.Y., “Effect of membrane chemistry on chlorination of nanofiltration membranes,” Oral Presentation, the IMSTEC10/AMS6 Conference, 22-26 November 2010, Sydney, Australia.
2. Fane, A.G., Biofouling on membranes – causes, consequences and control, Invited, International Symposium on Membrane Biofouling:- Bisbee, Arizona, USA, May 2010.
3. Fane, A.G., Biofouling on membranes – MBR, Invited, International Symposium on Membrane Biofouling, May 2010.
4. Fane, A.G., Membranes and the water cycle: challenges and opportunities, Membrane Science & Technology Conference, Bandung, Indonesia, 30 November – 1 December 2010. (Invited speaker. Conference dedicated to A G Fane)
5. Fane, A.G., Wang, R., Tang, C.Y. and Lay, W., Developments and challenges in Forward Osmosis, IMSTEC 10, Sydney, 23-25 November 2010.
6. Fane, A.G., Chong, T.H. and Suwarno, S., The fouling of RO membranes, IMSTEC 10, Sydney, 23-25 November 2010.
7. Jin, X., Gu, Y., Tang, C.Y., “Removal of boron from aqueous solutions using forward osmosis,” Oral Presentation, 3rd IWA Asia Pacific Young Water Professionals Conference: “Achieving Sustainable Development in the New Era”, 21-24 November 2010, Singapore.
8. Krantz, W.B., Greenberg, A.R., Kujundzic, E. and Yeo, A., A Novel Technique for Characterizing Membrane Pore Size – Evaporimetry. AIChE Annual Meeting, Salt Lake City, November 2010.
9. Lay, W. C. L., Zhang, Q., Zhang, J., Mu, S., McDougald, D., Andersen, M., Liu, Y. and Fane, A. G., Acclimation studies on an osmotic membrane bioreactor system, Poster Presentation, Water Convention. Singapore International Water Week, 2010.

10. Lay, W. C. L., Cen, J., Kavanagh, J. M., Chilcott, T. C., Le-Clech, P., Tang, C.Y., Liu, Y., Fane, A.G. and Coster, H. G. L., Exploration of concentration polarisation and fouling in Forward Osmosis using high resolution impedance spectroscopy technique, Oral Presentation, 5th IWA International YWP Conference, Sydney, 2010.
11. Lay, W.C.L., Gao, Y., Cen, J., Tang, C.Y., Liu, Y., Coster, H.G.L. and Fane, A.G., Exploration of high resolution electrical impedance spectroscopy technique for study of membrane wetting for forward osmosis, Oral Presentation, Young Water Talent Symposium, 28 June 2010, SunTec City, Singapore.
12. Pongpairoj, P., Wicaksana, F., Field, R., Cui, Z. and Fane, A.G., Transmission of and fouling by long chain molecules: Influence of shear, 3rd Oxford Water and Membrane meeting, 12-14 September 2010, Oxford, United Kingdom.
13. Priya, M.K., Law, A.W.K., and Song, J., Energy Recovery for Brine Streams from Membrane Processes – A Review. Oral presentation, Young Water Talents Symposium @ Singapore International Water Week 2010.
14. Qiu, C.Q., Setiawan, L., Wang, R., Tang, C.Y., Fane, A.G., “High performance flat sheet NF type forward osmosis membrane”, Oral Presentation, the 8th International Conference on Membrane Science and Technology, November 30 – December 1, ITB Bandung, Indonesia.
15. Shi, L. Wang, R., Chou, S.R., Tang, C.Y., Fane, A.G., Effect of Substrate Structure on the Performance of Thin-Film Composite FO Hollow Fiber Membranes, Oral presentation on “3rd Oxford Water and Membranes Research Event”, 12th - 15th, September, 2010, The University of Oxford, UK
16. Suwarno, S. R., Chong, T. H., Puspitasari, V., Chen, X., Rice, S., McDougald, D. and Fane, A. G., The hydrodynamic effect on biofouling in reverse osmosis membrane processes, In: IWA International Young Water Professional Conferences 2010, Sydney, Australia.
17. Taheri, A. H, Chong, T.H., Fane, A.G., Characterization of Reverse Osmosis Feed Water Fouling Potential, The 8th International Conferences on Membrane Science and Technology 2010, 29 November - 1 December 2010, ITB Bandung Indonesia.
18. Tang, C.Y., Forward osmosis for water and energy applications, Invited, June 15, National Centre of Excellence in Desalination, Murdoch University, Perth, Australia.
19. Tang, C.Y., Wang, R., and Fane, A. G., Development of forward osmosis and pressure retarded osmosis technology in Singapore, Invited, Oral Presentation, Second Osmotic Summit, American Membrane Technology Association, 11-12 July 2010, San Diego, California.
20. Tang, C.Y., Forward osmosis for water and energy applications – opportunities and challenges, Invited talk, July 16, Department of Civil and Environmental Engineering, Stanford University, California.

21. Tang, C.Y., "Surface characterization of RO and NF membranes," Oral Presentation, the North American Membrane Society 2010 Conference and the International Conference on Inorganic Membranes 2010, July 17-22, Washington D.C.
22. Tang, C.Y., Salt accumulation in osmotic membrane bioreactors: its modeling and implications, Oral Presentation, the North American Membrane Society 2010 Conference and the International Conference on Inorganic Membranes 17-22 July 2010, Washington D.C.
23. Tang, C.Y., Coupled effects of ICP and fouling on flux behavior of forward osmosis membranes, Oral Presentation, the North American Membrane Society 2010 Conference and the International Conference on Inorganic Membranes, 17-22 July 2010, Washington D.C.
24. Tang, C.Y., Limiting flux phenomena in reverse osmosis and nanofiltration processes, Invited, Oral Presentation, the Singapore Membrane Technology Centre Workshop on Critical, Limiting and Sustainable Fluxes for Membrane Separations, 29 July 2010, Nanyang Technological University, Singapore.
25. Tang, C.Y., "Membranes for desalination and water reuse," Invited Oral Presentation, 5 Nov 2010, Department of Mechanical Engineering, University of Colorado at Boulder, Colorado.
26. Tang, C.Y., "Modeling Forward Osmosis Processes," Oral Presentation, 2010 AIChE Annual Meeting, Nov 7-12 2010, Salt Lake City, Utah.
27. Tang, C.Y., Wang, Y.N., "Fouling of RO and NF Membranes by Proteins - the Role of Hydrodynamic Conditions and Solution Chemistry," Oral Presentation, 2010 AIChE Annual Meeting, Nov 7-12 2010, Salt Lake City, Utah.
28. Tang, C.Y., "Fouling behavior of forward osmosis membranes," Oral Presentation, the IMSTEC10/AMS6 Conference, 22-26 November 2010, Sydney, Australia.
29. Tang, C.Y., "Membrane technology for desalination and water treatment," Invited Talk, FiDiPro Programme, VTT, November 30, 2010, Helsinki, Finland.
30. Vinjay, A., Ling, K.V. and Fane, A.G., Applications of convex optimization in plant-wide control of membrane distillation bioreactor water recycling plant. P 246-251, Proceedings 11th Int. Conf. Control, Automation, Robotics and Vision, Singapore, 5-8 December 2010.
31. Wang, R., Shi, L., Tang, C.Y. Chou, S.R., Qiu, C.Q. and Fane, A.G., Development of novel forward osmosis hollow fiber membranes, Invited, Advances in Science and Engineering for Brackish Water and Seawater Desalination, 8-12 May 2010 at Cetraro, Italy.
32. Wang, R., Shi, L., Tang, C.Y. Chou, S.R., Qiu, C.Q. and Fane, A.G., Development of Thin-Film Composite FO Hollow Fiber Membranes and their Potential Applications ,

Am. Inst. of Chem. Eng. Annual Meeting- Salt Lake City Separation Division: Sessions to honour A G Fane., November 2010.

33. Wang, Y.C. and Tang, C.Y., Interaction of phthalate acid esters with RO and NF membranes, Oral Presentation and Poster Presentation, the North American Membrane Society 2010 Conference and the International Conference on Inorganic Membranes 17-22 July 2010, Washington D.C.
34. Wang, Y.N. and Tang, C.Y., Protein fouling of RO, NF, UF membranes – the role of hydrodynamic conditions and solution chemistry, Poster Presentation, the North American Membrane Society 2010 Conference and the International Conference on Inorganic Membranes 17-22 July 2010, Washington D.C.
35. Wang, Y.N., Tang, C.Y., “Direct Microscopic Observation of Forward Osmosis Membrane Fouling,” Oral Presentation, the IMSTEC10/AMS6 Conference, 22-26 November 2010, Sydney, Australia.
36. Wang, Y.N., Tang, C.Y., “Flux behavior of Reverse Osmosis /Nanofiltration/Ultrafiltration membranes during protein filtration,” Poster Presentation, the IMSTEC10/AMS6 Conference, 22-26 November 2010, Sydney, Australia.
37. Wei, J., Tang, C.Y. and Wang, R., Modeling the effect of membrane permeability and structure on forward osmosis performance, Oral Presentation, Young Water Talent Symposium, 28 June 2010, SunTec City, Singapore.
38. Wicaksana, F., Pongpairoj, P., Field, R., Cui, Z., Fane, A.G., Critical flux determination of microalgae (*Chlorella sorokiniana*) filtration using Direct Observation through the Membrane (DOTM) technique, 3rd Oxford Water and Membrane meeting, 12-14 September 2010, Oxford, United Kingdom.
39. Yang, X., Wang, R., Shi, L. and Fane, A.G., Evaluation of Three Hydrophobic Hollow Fiber Membranes for MD Application (Oral Presentation), Membrane Society of Australasia (MSA) student symposium, 18-21 February 2010, Wallongong, Australia.
40. Zhou, J., Environmental Life Cycle Assessment (LCA) of Brackish Water Reverse Osmosis Desalination with Different Electricity Production Models (Oral Presentation), Young Water Talents Symposium – Singapore International Water Week 2010, 28 June 2010.
41. Zhou, T., Lim, T.T., Chin, S.S. and Fane, A. G., Advanced oxidation processes coupling coagulation pretreatment for synergistic organics removal in RO brine Treatment, Oral Presentation, 2010 IUVA / IOA Conference, 28 June 2010.

Keynote

1. Fane, A.G., The role of membrane technology in our quality of life, Membrane Society of Australasia: Student Workshop – Wollongong, Australia, February 2010.
2. Fane, A.G., Water, membranes and biology – the good news and the bad news, 3rd Oxford Water & Membranes Research Event- Oxford, September 2010.
3. Fane, A.G., Improving the performance of MBRs, IWA Membrane Technology Conference- Istanbul, October 2010.
4. Fane, A.G., Membranes and the water cycle: Challenges and Opportunities, Aachen Membrane Conference – Aachen, October 2010.
5. Fane, A.G., Membrane Technology - Potential for a lower carbon future, Am. Inst. of Chem. Eng. Annual Meeting- Salt Lake City Separation Division: Sessions to honour A G Fane., November 2010.
6. Yeo, A., Experiencing the Water Journey. Keynote Address, Young Water Talent, Singapore International Water Week, 28 June 2010.

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In SCI Journals

1. Cobry, K. D., Yuan, Z., Gilron, J., Bright, V. M., Krantz, W. B. and Greenberg, A. R., Comprehensive experimental studies of early-stage membrane scaling during nanofiltration, *Desalination* 283 (2011) 40–51.
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Books/Chapters

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44. A.G. Fane, C.Y. Tang, R. Wang, Membrane Technology for Water: Microfiltration, Ultrafiltration, Nanofiltration, and Reverse Osmosis, in: P. Wilderer (Ed.) Treatise on Water Science, Academic Press, Oxford, 2011, pp. 301-335.

Conference/Invited

1. Fane, A.G. et al., Invited Talk, Membrane biofouling: MBRs and RO processes, AWA Membranes & Desalination Specialty Conference, Gold Coast, 9-11 Feb, 2011.
2. Fane, A.G., Invited Talk, Improving the efficiency of membranes in the water industry, N. Li Special Session, International Congress on Membranes (ICOM) 2011, Amsterdam, 25-29 July, 2011.
3. Fane, A.G., Wang, R. & Tang, C., Invited Talk, Advances in MD and Forward Osmosis: membranes, modules and applications, IDA World Congress on Desalination & Water Reuse, Perth Australia, 5 -9 September, 2011 (Winner of Best Technical Paper Award).
4. Fane, A.G. & Yeo, A. et al., Invited Talk, Singapore Membrane Technology Centre: Action for good activities, IDA World Congress on Desalination & Water Reuse, Perth Australia, 5 -9 September, 2011.
5. Fane, A.G. & Wang, R., Invited Talk, Membrane distillation: developments in membranes, modules and applications, International Conference on Membrane Distillation & Related Technologies Ravello, Italy, 9-12 October, 2011.
6. Fane, A.G., Invited Seminar, Overview of membrane desalination processes, Membrane Desalination Including Pretreatment, Ngee Ann Polytechnic, 18 March 2011
7. Fane, A.G., Invited Seminar, Recent developments in membrane science and technology, Seminar Imperial College, 21 September 2011
8. Fane, A.G., Invited Seminar, Membrane research at the Singapore Membrane Technology Centre, Seminar at Desalination and Water Reuse Centre, KAUST, Saudi Arabia, 3 December, 2011.
9. Gao, Y.B., Li, W.Y., Tang, C.Y., "Towards real-time, non-invasive and sensitive characterization of forward osmosis process", Oral Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
10. Goh, S., Zhang, J., Liu, Y., and Fane, A.G., Effect of Biomass Inclusion on the Performance of Membrane Distillation (MD) in Wastewater Reclamation: A

Comparison between the Membrane Distillation Bioreactor (MDBR) and MD, Oral Presentation, Young Water Talent Symposium, 4 July 2011, SunTec City, Singapore.

11. Goh, S., Zhang, J., Krantz, W.B., Liu, Y., and Fane, A.G., Effect of hydrophilicity of biofilm on membrane distillation flux - does it make a difference?, Oral Presentation, Membrane Science and Technology Symposium 2011, 24 - 25 August 2011, Nanyang Executive Centre, Singapore.
12. Jin, X., She, Q.H., Tang, C.Y., "Boric Acid Permeation in Forward Osmosis Membrane Processes", Poster Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
13. Jin, X., Tang, C.Y., "Removal of arsenic and boron by forward osmosis membrane: influence of membrane orientation and organic fouling", Oral Presentation, Membrane Science and Technology 2011 (MST2011) symposium, August 23-26, 2011, Singapore.
14. Kitade, T., Wu, B., Chong, T.H., Lee, J.Y., Wong, F.-S., Fane, A.G., Uemura, T., Investigation of mechanisms and control technologies of MBR+RO fouling---Part I: Flux-dependent fouling phenomena in membrane bioreactors under different F/M ratios, Poster Presentation, Singapore International Water Week 4-8 July 2011, Singapore.
15. Lay, W.C.L., Gu, Y., Yap, W.J., Zhang, J., Tang, C.Y., Liu, Y., Wang, R., and Fane, A. G., "Exploration of chemical method for process enhancement of osmotic membrane bioreactor," Oral Presentation, Young Water Talent Symposium, 4 July, 2011, SunTec City, Singapore.
16. Qi, S.R., Qiu, C.Q., Tang, C.Y., "Synthesis and characterization of novel forward osmosis membranes based on layer-by-layer assembly", Oral Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
17. Qi, S.R., Qiu, C.Q., Tang, C.Y., "Fabrication and characterization of novel double-skinned forward osmosis membranes", Poster Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
18. She, Q.H., Jin, X., Tang, C.Y., "Critical flux in algal biopolymer fouling of forward osmosis membranes - role of feed solution chemistry and draw solution types", Oral Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
19. Tang, C.Y., "Membrane technology: Current status and future aspects", Invited seminar, June 7, 2011, Kemira OYJ, Helsinki, Finland.
20. Tang, C.Y., "Membrane technology for water and energy applications", Symposium on Advanced Water Technologies - Membrane, June 8, 2011, VTT, Helsinki, Finland. Keynote speech. Speaking in the capacity of visiting professor and Fellow, the Finland Distinguished Professorship (FiDiPro) Programme.

21. Tang, C.Y., “Membrane technology for biotech applications”, Invited seminar, June 9, 2011, VTT, Helsinki, Finland.
22. Tang, C.Y., “Membrane technology: the state of the art and future developments”, Invited seminar, June 10, 2011, Neste Oil and Borealis, Porvoo, Finland.
23. Tang, C.Y., “Membrane separation – opportunities for advanced material technologies”, Invited talk June 13, 2011, Advanced Material Technology Seminar, VTT, Tampere, Finland.
24. Tang, C.Y., “Fouling and surface modification of membranes”, Invited talk June 15, 2011, VTT, Tampere, Finland.
25. Tang, C.Y., “Membrane research in Singapore”, Invited talk June 20, 2011, Metso Automation, Tampere, Finland.
26. Tang, C.Y., “Membrane fouling and fouling prevention”, Invited talk June 21, 2011, VTT, Jyväskylä, Finland.
27. Tang, C.Y., “Osmotic membrane technology”, Invited talk June 22, 2011, the Finland Distinguished Professorship Programme meeting, VTT and Tekes, Espoo, Finland.
28. Tang, C.Y., “Fouling of RO and NF membranes and the role of membrane surface properties”, IWA Biofilm Workshop, July 1 – 3, 2011, Singapore.
29. Tang, C.Y., She, Q., Lay, W., Fane, A. G., “Fouling Behavior of Forward Osmosis Membranes - Its similarity and differences with RO fouling”, Poster Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
30. Tang, C.Y., “Surface characterization of RO and NF membranes”, Poster Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
31. Tang, C.Y., Wang, R., and Fane, A. G., “Development of forward osmosis and pressure retarded osmosis technology in Singapore”, Oral Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
32. Teo C.W. & Wong C.Y. (2011). Enhancing anaerobic hydrolysis in municipal wastewater treatment. Singapore International Water Week, Young Water Talent, Oral Presentation, Suntec City, Singapore.
33. Wang, R., Tang, C.Y., Fane, A.G., Development of Novel Forward Osmosis Hollow Fiber Membranes , Invited speech, The 241st ACS (Spring) National Meeting in Anaheim, California on March 27-31, 2011.

34. Wang, R., Fane, A.G., Development of Novel chemical surface modification method to enhance membrane hydrophobicity, International Conference on Materials for Advanced Technologies (ICMAT) 2011, 26 June to 1 July 2011, Suntec, Singapore.
35. Wang, Y.N., Tang, C.Y., "Binary protein mixture fouling of NF and RO membranes: an insight of foulant-foulant interaction", Poster Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
36. Wang, Y.N., Tang, C.Y., "Fouling of RO, NF, and UF membranes by protein mixtures", Oral Presentation, Membrane Science and Technology 2011 (MST2011) symposium, August 23-26, 2011, Singapore.
37. Wei, J., Qiu, C., Tang, C.Y., Wang, R., and Fane, A. G., "Fabrication and characterization of thin film composite membranes for forward osmosis," Oral Presentation, Young Water Talent Symposium, 4 July, 2011, SunTec City, Singapore.
38. Wei, J., Qiu, C., Tang, C.Y., "Influence of monomer concentration on the performance of polyamide-based thin film composite membranes in osmotically driven membrane processes", Oral Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
39. Wei, J., Qiu, C., Tang, C.Y., "Synthesis and characterization of flat-sheet thin film composite forward osmosis membranes", Poster Presentation, International Congress on Membranes and Membrane Processes, July 23-29, 2011, Amsterdam, the Netherlands.
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41. Zhang, Y., Wang, R., Yi, S.L., Setiawan, L. and Fane, A.G., Novel chemical surface modification to enhance hydrophobicity of polyamide-imide (PAI) hollow fiber membranes intended for use in gas-liquid membrane contactor", Oral Presentation, International Congress on Membranes and Membrane Processes, 23-29 July 2011, University of Twente, Amsterdam.
42. Zhang, Y., Wang, R., Yi, S.L., Setiawan, L. and Fane, A.G., Novel chemical surface modification to enhance hydrophobicity of polyamide-imide (PAI) hollow fiber membranes intended for use in gas-liquid membrane contactor", Oral Presentation, International Science and Technology, 23-25 Aug 2011, Nanyang Technological University, Singapore.

Keynote

1. Fane, A.G., Developments and challenges in membrane desalination, International Congress on Membranes (ICOM) 2011, Amsterdam, 25-29 July, 2011.
2. Fane, A.G. Recent developments in membrane science and technology, MST 2011 Regional Symposium on Membrane Science & Technology, Singapore, August 24-25, 2011.
3. Fane, A.G. Membrane research at the Singapore Membrane Technology Centre, Membrane Society of Australasia Young Researchers Conference, Adelaide 23-25 November, 2011.

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In SCI Journals

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3. Chai, G.Y., B. Cao, G.Y. Zhao, A.R. Greenberg and W.B. Krantz, Effects of Concentration Polarization, Temperature and Pressure on Ultrasound Detection of Inorganic Fouling and Cleaning in a Spiral-Wound Membrane Module,” *Desalination and Water Treatment*, 50(1-3), 411-422 (2012).
4. Chen G., Yang X., Wang R., Fane A.G., Performance enhancement and scaling control with gas bubbling in direct contact membrane distillation, *Desalination*, <http://dx.doi.org/10.1016/j.desal.2012.07.018> (2012).
5. Chou, S.R., Wang, R., Shi, L., She, Q.H., Tang, C.Y. and Fane, A.G., Thin-film composite hollow fiber membranes for pressure retarded osmosis (PRO) process with high power density, *Journal of Membrane Science*, 389 (2012) 25-33.
6. Do, VT, Tang, CY, Reinhard, M, Leckie, JO, Effects of hypochlorous acid exposure on the rejection of salt, polyethylene glycols, boron and arsenic(V) by nanofiltration and reverse osmosis membrane, *WATER RESEARCH*, Volume: 46 Issue: 16 Pages: 5217-5223 DOI: 10.1016/j.watres.2012.06.044, Published: OCT 15 2012.
7. Do, V.T., Tang, C.Y., Reinhard, M., Leckie, J.O., Effects of Chlorine Exposure Conditions on Physiochemical Properties and Performance of a Polyamide Membrane - Mechanisms and Implications. *Environmental Science & Technology*. Accepted. DOI: 10.1021/es302867f Publication Date (Web): December 5, 2012.
8. Fang, W.X., Wang, R., Chou, S.R., Setiawan, L. and Fane, A.G., Composite forward osmosis hollow fiber membranes: Integration of RO- and NF-like selective layers to enhance membrane properties of anti-scaling and anti-internal concentration polarization, *Journal of Membrane Science*, 394-395 (2012) 140-150.
9. Gao, Y., W. Li, W.C.L. Lay, H.G.L. Coster, A.G. Fane, and C.Y. Tang, Characterization of forward osmosis membranes by electrochemical impedance spectroscopy. *Desalination*, 2013. 312: p. 45-51. (31 March 2012).
10. Gonzalez-Avila, S.R., Prabowo, F., Kumar, A. and Ohl, C.D., Source: Improved ultrasonic cleaning of membranes with tandem frequency excitation, *JOURNAL OF MEMBRANE SCIENCE* Volume: 415 Pages: 776-783 DOI: 10.1016/j.memsci.2012.05.069 Published: OCT 1 2012.

11. Guan, G.Q., Wang, R., Wicaksana, F., Yang, X. and Fane, A.G., Analysis of membrane distillation crystallization system for high salinity brine treatment with zero discharge using Aspen flowsheet simulation, *Industrial & Engineering Chemistry Research*, 51 (2012) 13405–13413.
12. Jia, Y., Wang, R. and Fane, A.G., Simulation of countercurrent operation of two-stage hybrid PAC-submerged membrane system for trace organics removal, *Journal of Environmental Engineering*, 138 (2012) 625-631.
13. Krantz, W.B., H. Lee, S.R. Chaudhuri, and S.-T. Hwang, “Non-buoyancy Density-Driven Convective Mass and Heat Transfer: Scaling Analysis and Solution Methodology,” *A.I.Ch.E. Journal*, 58(3), 678-689 (2012).
14. Lay, W.C.L., Zhang, Q.Y., Zhang, J.S., McDougald, D., Tang, C.Y., Wang, R., Liu, Y. and Fane, A.G., Effect of Pharmaceuticals on the Performance of a Novel Osmotic Membrane Bioreactor (OMBR), *Separation Science and Technology*, 47(2012) 543-554.
15. Lay, W.C.L., Zhang, J.S., Tang, C.Y., Wang, R., Liu, Y. and Fane, A.G., Factors affecting flux performance of forward osmosis systems, *Journal of Membrane Science*, 394-395 (2012) 151-168.
16. Lay, W.C.L., Zhang, J.S., Tang, C.Y., Wang, R., Liu, Y. and Fane, A.G., Analysis of Salt Accumulation in a Forward Osmosis System, *SEPARATION SCIENCE AND TECHNOLOGY* Volume: 47 Issue: 13 Pages: 1837-1848 DOI: 10.1080/01496395.2012.692423, Published: 2012.
17. Li, X.S., Wang, R., Tang, C.Y., Vararattanavech, A., Zhao, Y., Torres, J. and Fane, T., Preparation of supported lipid membranes for aquaporin Z incorporation, *Colloids and Surfaces B: Biointerfaces*, 94 (2012) 333-340.
18. Liu C., W. Fang, S. Chou, L. Shi, A.G. Fane, Wang R., Fabrication of layer-by-layer assembled FO hollow fiber membranes and their performances using low concentration draw solutions, *Desalination*, <http://dx.doi.org/10.1016/j.desal.2012.07.027> (2012).
19. Lin, X., Nielsen, C.H., Su, H.B., Torres, J. Tang, C.Y., Wang, R., Fane, A.G. and Mu, Y.G., Population shift between the open and closed states changes the water permeability of an Aquaporin Z mutant, *Biophys J.* 103 (2012) 212-8.
20. Loh, C.H., Wang, R., Effects of Additives and Coagulant Temperature on Fabrication of High Performance PVDF/Pluronic F127 Blend Hollow Fiber Membranes via Nonsolvent Induced Phase Separation, *Chinese Journal of Chemical Engineering*, Volume 20, Issue 1, February 2012, Pages 71-79
21. Loo, S.L., Fane, A.G., Krantz, W.B. and Lim, T.T., Emergency water supply: A review of potential technologies and selection criteria, *Water Research*, 46 (10) 3125-3151. Published online on 3rd April 2012.

22. Loo, S.-L., W.B. Krantz, T.T. Lim, A.G. Fane and X. Hu, "Design and Synthesis of Ice-templated PSA Cryogels for Water Purification: Towards Tailored Morphology and Properties" *Soft Matter*, 9, 224-234 (16 October 2012).
23. Qi, SR, Qiu, CQ, Zhao, Y and Tang, CYY, Double-skinned forward osmosis membranes based on layer-by-layer assembly-FO performance and fouling behavior , *JOURNAL OF MEMBRANE SCIENCE* Volume: 405 Pages: 20-29 DOI: 10.1016/j.memsci.2012.02.032 Published: JUL 1 2012
24. Qi, S., W. Li, et al. (2012). "Influence of the properties of layer-by-layer active layers on forward osmosis performance." *Journal of Membrane Science* 423-424: 536-542."
25. Qiu, C., Setiawan, L., Wang, R., Tang, C.Y.Y. and Fane, A.G., High performance flat sheet forward osmosis membrane with an NF-like selective layer on a woven fabric embedded substrate, *Desalination*, 287 (2012) 266–270.
26. Setiawan, L., Wang, R., Li, K. and Fane, A.G., Fabrication and characterization of forward osmosis hollow fiber membranes with antifouling NF-like selective layer, *Journal of Membrane Science*, 394-395 (2012) 80-88.
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Conference/Invited

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2. C. Liu, Novel Nanofiltration hollow fiber membrane using layer-by-layer deposition and crosslinking for niche applications, Oral presentation, *Membrane Science and Technology 2013*, Kuala Lumpur, Malaysia, 27-29th August 2013.
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4. Ebrahim Akhondi, Filicia Wicaksana, William B. Krantz A.G. Fane. Application of Evaporimetry to Characterizing the Pore-Size Distribution of Hollow Fibre Membranes. *AIChE Conferences*, 7 Nov. 2013, San Francisco USA.
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Books/Chapters

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Provisional Patent:

50. Coster, H. G. L.; Sim, L. N.; Ho, J. S.; Fane, A. G. "Critical flux phenomena in reverse osmosis characterized by electrical impedance spectroscopy" Singapore, Filed 24 April 2015.

Conference/Invited

1. Bing Wu, Ebrahim Akhondi, Shuyang Sun, Brigit Marxer, Florian Hochstrasser, Weikang Lim, Jun Gun, Linbo Liu, Michael Burkhardt, Diane McDougald, Wouter Pronk, Anthony G. Fane. "Gravity-driven membrane filtration as pretreatment for seawater reverse osmosis: opportunities and challenges" Engineering with membranes conference, May 6-10, 2015, Beijing, China. (oral presentation)

2. Bing Wu, Weikang Lim, Yu Liu, Anthony G. Fane. "Membrane fouling mechanism in a two-stage anaerobic fluidized-bed membrane bioreactor" The North American Membrane Society 25th Annual Meeting, May 30-June 3, 2015, Boston, MA, USA. (oral presentation).
3. Bing Wu, Farhad Zamani, Weikang Lim, Dexiang Liao, Yuanyuan Wang, Yu Liu, Jia Wei Chew, Anthony G. Fane. "Enhancement of microfiltration performance by fluidized granular activated carbon (GAC): effect of GAC particle size" the 2nd International Conference on Desalination Using Membrane Technology, July 26-29, 2015, Singapore. (oral presentation)
4. E. Akhondi, B. Wu, S. Sun, B. Marxer, W. Lim, J. Gu, L. Liu, M. Burkhardt, D. McDougald, W. Pronk, A.G. Fane, (2015) "Assessing Gravity Driven Membrane Filtration as a Low Energy Technique for Pretreatment of Seawater RO Desalination in 2nd international conference on desalination using membrane technology, 26-29 July 2015. Singapore. (oral presentation).
5. Ho, J.S., Low, J.H., Sim L.N., Webster, R.D., Coster, H.G.L., Fane, A.G. , *In-situ* monitoring of biofouling in reverse osmosis by electrical impedance spectroscopy, Euromembrane 2015 – Aachen, Germany, 5 - 10 Sept 2015.
6. Jingwei Wang, Bing Wu, Anthony G Fane, Jia Wei Chew. Characterizing the Scouring Efficiency of Fluidized Granular Activated Carbon (GAC) Particles in Membrane Fouling Mitigation Via Wavelet Decomposition of Accelerometer Signals. 2015 American Institute of Chemical Engineers (AIChE) Annual Meeting. November 8-13, 2015, Salt Lake City, UT. (Oral presentation) (ISBN: 978-0-8169-1094-6)
7. Lei Yao, Shun Kuang Lua, Lizhi Zhang, Rong Wang, Zhili Dong. "A new surfactant encapsulated polyoxometalate for environmental applications" European Materials Research Society 2015 Spring Meeting, May 11-May 15, 2015, Lille, France. (Oral presentation)
8. Low, J.H., Anti-biofouling electrospun nanosilver-functionalized nylon 6 nanofibrous membranes for reverse osmosis prefiltration, oral presentation, 2nd international conference on desalination using membranes – Singapore, July 2015.
9. Low, J.H., In situ Nitric Oxide treatment to control biofouling in membrane-based water treatment process, oral presentation, Euromembrane 2015 - Aachen, Germany, September 2015
10. Meng S, Yang Q, Liu Y. Fouling Propensities of Alginate Blocks in the Membrane Filtration, oral presentation, 2015 International Congress on Chemical, Biological and Environmental Sciences (ICCBES), Osaka, Japan, May 2015
11. Meng-Yi Jin, Chun Heng Loh, Yuan Liao, Rong Wang, Shuwen Goh, Jia Ling Bibianna Yeo, Anthony G. Fane. "High flux aqueous-aqueous extractive membranes based on electrospun nanofibrous PVDF scaffolds and PDMS coating for removal of

phenol" The North American Membrane Society 25th Annual Meeting, May 30-June 3, 2015, Boston, Massachusetts USA. (Poster presentation)

12. Siddiqui MF, Hyun-Suk Oh, Miles Rzechowicz, Harvey Winters, Tzyy Haur Chong, Anthony G. Fane. Anti-biofouling potential of tannic acid against *Pseudomonas aeruginosa* and reverse osmosis multispecies community, 2nd International Conference on Desalination using Membrane Technology, 26-29 July, Singapore, (Oral Presentation) (Accepted 3 March 2015).
13. Yeo, J.L.B., Goh, S., Zhang, J.S., Song, H., Fane, A.G., The Extractive Membrane Bioreactor: Application in the Treatment of Recalcitrant Organics, MEMDES 2015, 26 - 29 July 2015, Singapore (*Oral presentation*)
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