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Journal Papers

1. Rice, S. A., C. H. Tan, P. J. Mikkelsen, V. Kung, J. Woo, M. Tay, A. Hauser, D. McDougald, J. S. Webb, and S. Kjelleberg. The biofilm life cycle and virulence of *Pseudomonas aeruginosa* are dependent on a filamentous prophage. **ISME J.**, Vol 3(3), 271-282. *(Published March 2009)*
2. Barraud, N., Schleheck, D., Klebensberger, J., Webb, J.S., Hassett, D.J., Rice, S.A., Kjelleberg, S. Nitric oxide signaling in *Pseudomonas aeruginosa* biofilms mediates phosphodiesterase activity, decreased cyclic di-GMP levels, and enhanced dispersal. **J. Bacteriol.**, Vol 191, 7333-7342. *(Published December 2009)*
3. Barraud, N., Storey, M.V., Moore, Z.P., Webb, J.S., Rice, S.A., Kjelleberg, S. Nitric oxide-mediated dispersal in single- and multi-species biofilms of clinically and industrially relevant microorganisms. **Microb Biotechnol**, Vol 2(3), 370-378. *(Published May 2009)*
4. Zhou, Y., Ganda L., Lim M., Yuan Z., Kjelleberg S, Ng WJ. Free nitrous acid (FNA) inhibition on denitrifying poly-phosphate accumulating organisms (DPAOs). **Applied Microbiology and Biotechnology**, Vol 88(1), 359-369. *(Published September 2010)*
5. Jiang H-L, Maszenan A. M., Zhao Z.-W., Tay J.H. Properties of phenol-removal aerobic granules during normal operation and shock loading. **Journal of Industrial Microbiology & Biotechnology**, Vol 37(3), 253-262. *(Published March 2010)*
6. Xiong Y.H. and Liu Y. Involvement of ATP and autoinducer-2 in aerobic Granulation. **Biotechnology and Bioengineering**, Vol 105(1), 51-58. *(Published January 2010)*
7. Xu H.J. and Liu Y. Control of microbial attachment by inhibition of ATP and ATP-mediated autoinducer-2. **Biotechnology and Bioengineering**, Vol 107(1), 31-36. *(Published September 2010)*
8. Xiong Y.H. and Liu Y. Biological control of microbial attachment: a promising alternative for mitigating membrane biofouling. **Applied Microbiology and Biotechnology**, Vol 86(3), 825-837. *(Published April 2010)*
9. Zhang J., Zhou J., Liu Y., Fane A.G. A comparison of membrane fouling under constant and variable organic loadings in submerge membrane bioreactors. **Water Research**, Vol 44(18), 5407-5413. *(Published October 2010)*
10. Jiang B., and Liu Y. Energy uncoupling inhibits aerobic granulation. **Applied Microbiology and Biotechnology**, Vol 85(3), 589-595. *(Published January 2010)*

11. Shen L., Liu Y. and Xu. H.L. Treatment of ampicillin-loaded wastewater by combined adsorption and biodegradation. **Journal of Chemical Technology and Biotechnology**, Vol 85(6), 814-820. *(Published June 2010)*
12. Xu H.J. and Liu Y. Control and cleaning of membrane biofouling by energy uncoupling and cellular communication. **Environmental Science & Technology**, Vol 45(2), 595-601. *(Published 13-Dec-10)*
13. Shen L., Xu H.L. and Liu Y. Microbial characterization of the biofilms developed for treating ampicillin-bearing wastewater. **Journal of Environmental Science and Health, Part A Toxic/Hazardous Substance & Environmental Engineering**, Vol 46(3), 314-322. *(Published 2011)*
14. A.M. Maszenan, Yu Liu, Wun Jern Ng. Bioremediation of wastewaters with recalcitrant organic compounds and metals by aerobic granules. **Biotechnology Advances**, Vol 29(1), 111-123. *(Published February 2011)*
15. Maszenan A.M., Liu Y. and Ng W.J. High-performance anaerobic granulation processes for treatment of wastewater containing recalcitrant compounds. **Critical Reviews in Environmental Science and Technology**, Vol 41(14), 1271-1308. *(Published 2011)*
16. Winson C.L. Lay, Qiaoyun Zhang, Jinsong Zhang, Diane McDougald, Chuyang Tang, Rong Wang, Yu Liu, Anthony G. Fane. Effect of pharmaceutical on the performance of a novel osmotic membrane bioreactor (OMBR). **Separation Science and Technology**, Vol47(4), 543-554. *(Published 2012)*
17. Yan Zhou, Adrian Oehmen, Melvin Lim, Vel Vadivelu, Wun Jern Ng. The Role of Nitrite and Free Nitrous Acid (FNA) in Wastewater Treatment Plants. **Water Research**, Vol 45(15), 4672-82. *(Published 1-Oct-11)*
18. Lay, W. C. L., Q. Zhang, J. Zhang, D. McDougald, C. Tang, W. Rong, Y. Liu, and A. G. Fane. Study of integration of forward osmosis and biological process: Membrane performance under elevated salt environment. **Desalination**, Vol 283, 123-130. *(Published 1-Dec-11)*
19. Sendjaja, A. Y. and Kariwala, V. Minimum Variance Benchmark for Performance Assessment of Decentralized Controllers, **Industrial Engineering Chemistry Research**, Vol 51(11), 4288-4298. *(Published 15-Feb-12)*
20. Agarwal, A., Xu, H. J., Ng, W. J., Liu, Y. Biofilm detachment by self-collapsing air microbubbles: a potential chemical-free cleaning technology for membrane biofouling. **Journal of materials chemistry**, Vol 22(5), 2203-2207. *(Published 2012)*

21. Ma, J. Z., Xiong, Z. G., Waite, T. D., Ng, W. J., Zhao, X.S. Enhanced inactivation of bacteria with silver-modified mesoporous TiO₂ under weak ultraviolet: irradiation. **Microporous and Mesoporous Materials**, Vol 144(1-3), 97-104. *(Published October 2011)*
22. Agarwal, A., Ng, W. J., Liu, Y. Principle and applications of microbubble and nanobubble technology for water treatment. **Chemosphere**, Vol 84(9), 1175-1180. *(Published August 2011)*
23. Ni, W. D., Tan, S. K., Ng, W. J. Recursive GPR for nonlinear dynamic process modeling. **Chemical engineering journal**, Vol 173(2), 636-643. *(Published 15-Sep-11)*
24. Xiong, Z. G., Ma, J. Z., Ng, W. J., Waite, T. D., Zhao, X.S. Silver-modified mesoporous TiO₂ photocatalyst for water purification. **Water research**, Vol 45(5), 2095-2103. *(Published February 2011)*
25. Suwarno, S. R., X. Chen, T. H. Chong, V. L. Puspitasari, D. McDougald, Y. Cohen, S. A. Rice, and A. G. Fane. The Impact of flux and spacers on biofilm development on reverse osmosis membranes. **Journal of Membrane Science**, Vol 405-406, 219-232. *(Published 1-Jul-12)*
26. Xi Chen, Stanislaus Raditya Suwarno, Tzyy Haur Chong, Diane McDougald, Staffan Kjelleberg, Yehuda Cohen, Anthony G. Fane and Scott A. Rice. Dynamics of biofilm formation under different nutrient levels and the effect on biofouling of a reverse osmosis membrane system. **Biofouling**, Vol 29(3), 319-30. *(Published March 2013)*
27. Xiong Y. H and Liu Y. Essential roles of eDNA and AI-2 in aerobic granulation in sequencing batch reactors operated at different settling times. **Applied Microbiology and Biotechnology**, Vol 93(6), 2645-51. *(Published March 2012)*
28. Yan Zhou, Lily Ganda, Melvin Lim, Zhiguo Yuan, Wun Jern Ng. Response of Poly-phosphate Accumulating Organisms to Free Nitrous Acid Inhibition under Anoxic and Aerobic Conditions. **Bioresource Technology**, Vol 116, 340-347. *(Published July 2012)*
29. Yan Zhou, Melvin Lim, Soekendro Harjono, Wun Jern Ng. Nitrous oxide (N₂O) emission by denitrifying phosphorus removal culture using polyhydroxyalkanoates (PHA) as carbon source. **Journal of Environmental Sciences**, Vol 24(9), 1616-23. *(Published 28-May-12)*
30. Yet Nee Peyong, Yan Zhou, Ahmad Zuhairi Abdullah, Vel Murugan Vadilelu. The effect of organic loading rates and nitrogenous compounds on the aerobic

- granules developed using low strength wastewater. **Biochemical Engineering Journal**, Vol 67, 52-59. *(Published 15-Aug-12)*
31. Yan Zhou, Dong Qing Zhang, Minh Tuyet Le, Aik Num Puah, Wun Jern Ng. Energy utilization in sewage treatment – a review with comparisons. **Journal of Water and Climate Change**, Vol 4(1), 1-10. *(Published March 2013)*
32. Jayarathna, L, Ng, WJ, Bandara, A, Vitanage, M, Dissanayake, CB, Weerasooriya, R. Fabrication of Succinic acid - gamma -Fe₂O₃ nano Core-shells". **Colloids and Surfaces A: Physicochemical and Engineering Aspects**, Vol 403, 96-102. *(Published 5-Jun-12)*
33. Ni, WD; Tan, SK; Ng, WJ; Brown, SD. Moving-window GPR for nonlinear dynamic system modeling with dual updating and dual preprocessing. **Industrial & Engineering Chemistry Research**, Vol 51(18), 6416-6428. *(Published 10-Apr-12)*
34. K.B.S.N. Jinadasa, S.K.I. Wijewardena, Dong Qing Zhang, Richard M. Gersberg, C.S. Kalpage, Soon Keat Tan, Jing Yuan Wang and Wun Jern Ng. Socio-Environmental Impact of Water Pollution on the Mid-canal (Meda Ela), Sri Lanka. **Journal of Water Resource and Protection (JWARP)**, Vol 4(7), 451-459. *(Published July 2012)*
35. Weragoda, SK, Jinadasa, KBSN, Zhang, DQ, Gersberg, RM, Tan, SK, Tanaka, N, Jern, NW. Tropical Application of Floating Treatment Wetlands. **Wetlands**, Vol 32(5), 955-961. *(Published September 2012)*
36. Gao, P., J.C. Liu, Zhang, T., Sun, D.D. and W.J.Ng. Hierarchical TiO₂/CdS "spindle-like" Composite with High Photodegradation and Antibacterial Capability under Visible Light Irradiation. **Journal of Hazardous Materials**, Vol 229, 209-216. *(Published 30-Aug-12)*
37. Dong Qing Zhang, Tao Hua, Richard M. Gersberg, Junfei Zhu, Wun Jern Ng, Soon Keat Tan. Fate of diclofenac in wetland mesocosms planted with *Scirpus validus*. **Ecological Engineering**, Vol 49, 59-64. *(Published December 2012)*
38. Wangdong Ni, Ke Wang, Tao Chen, Wun Jern Ng, Soon Keat Tan. GPR model with signal preprocessing and bias update for dynamic processes modeling. **Control Engineering Practice**, Vol 20(12), 1281–1292. *(Published December 2012)*
39. Ni, WD, Tan SK, Ng, WJ, Brown, SD. Localized, Adaptive Recursive Partial Least Squares Regression for Dynamic System Modeling. **Industrial & Engineering Chemistry Research**. Vol. 51(23), 8025–8039. *(Published 16-May-12)*

40. Yan Zhou, Dong Qing Zhang, Minh Tuyet Le, Aik Num Puah, Wun Jern Ng (2013). Energy utilization in sewage treatment – a review with comparisons. **Journal of Water and Climate Change**, Vol 4(1), 1-10. (Published March 2013)
41. Zhang R., Gong H.Q., Zeng X.D., Lou C.P. and Sze C.C. A microfluidic liquid phase nucleic acid purification chip to selectively isolate DNA or RNA from low copy/single bacterial cells in minute sample volume followed by direct on-chip quantitative PCR assay. **Analytical Chemistry**, Vol 85(3), 1484-1491. (Published February 2013)
42. Zhang R., Gong H.Q., Zeng X.D. and Sze C.C. A high-throughput microfluidic biochip to quantify bacterial adhesion to single host cells by real-time PCR assay. **Analytical and Bioanalytical Chemistry**, Vol 405(12), 4277-4282. (Published May 2013)
43. Xiao, K.K., Guo, C.H., Zhou, Y., Maspolim, Y., Wang, J.Y. and Ng, W. J. Acetic acid inhibition on methanogens in a two-phase anaerobic process. **Biochemical Engineering Journal**, Vol 75, 1-7. (Published 15-Jun-13)
44. Zhang, D.Q., Gersberg, R.M., Hua, T., Zhu, J.F., Ng, W.J. and Tan, S. K. (2013). Carbamazepine and naproxen: Fate in wetland mesocosms planted with *Scirpus validus*. **Chemosphere**, Vol 91(4), 14-21. (Published 1-Mar-13)
45. Zhang, D.Q., Hua, T., Gersberg, R.M., Zhu, J.F., Ng, W.J. and Tan, S. K. Fate of Caffeine in mesocosms wetland planted with *Scirpus validus*. **Chemosphere**, Vol 90(4), 1568-1572. (Published January 2013)
46. Zhang, D.Q., Gersberg, R.M., Zhu, J.F., Hua, T., Ng, W.J. and Tan, S. K. Assessment of plant-driven uptake and translocation of the pharmaceutical, clofibric acid by *Scirpus validus*. **Environmental Science and Pollution Research**, Vol 20(7), 4612-20. (Published July 2013)
47. Zhang, D.Q., Gersberg, R.M., Zhu, J.F., Hua, T., Nguyen, A.T., Law, W.K., Ng, W.J. and Tan, S.K. Effect of feeding strategies on pharmaceutical removal by subsurface flow constructed wetlands. **Journal of Environmental Quality**, Vol 41(5), 1674-1680. (Published Sep-Oct 2012)
48. Meng SJ, Rzechowicz M., Winters H, Fane AG, Liu Y. Transparent exopolymer particles (TEP) and their potential effect on membrane biofouling. **Applied Microbiology and Biotechnology**, Vol 97(13), 5705-5710. (Published July 2013)
49. Jiang B and Liu Y. Dependence of structure stability and integrity of aerobic granules on ATP and cell communication. **Applied Microbiology and Biotechnology**, Vol 97(11), 5105-5112. (Published June 2013)

50. Agarwal, Ashutosh; Ng, Wun Jern; Liu, Yu. Cleaning of biologically fouled membranes with self-collapsing microbubbles. **Biofouling**, Vol 29(1), 69-76. *(Published January 2013)*
51. Guo, M.; Stuckey, D. C.; Murphy, R. J. Is it possible to develop biopolymer production systems independent of fossil fuels? Case study in energy profiling of polyhydroxybutyrate-valerate (PHBV). **Green Chemistry**, Vol 15(3), 706-717. *(Published December 2012)*
52. Guo, M.; Stuckey, D. C.; Murphy, R. J. End-of-life of starch-polyvinyl alcohol biopolymers. **Bioresource Technology**, Vol 127, 256-266. *(Published January 2013)*
53. Stuckey, David C. Recent developments in anaerobic membrane reactors. **Bioresource Technology**, Vol 122, 137-148. *(Published October 2012)*
54. Li JF; Zheng; Cheng FQ, Liu Yu. New insights into membrane fouling in submerged MBR under sub-critical flux condition. **Bioresource Technology**, Vol. 137, 404-408. *(Published June 2013)*
55. Xiong Y.H. and Liu Y. Importance of extracellular proteins in maintaining structural integrity of aerobic granules. **Colloids and Surfaces B: Biointerfaces**, Vol112, 435-40. *(Published 1-Dec-13)*
56. Meng S.J. and Liu Y. Alginate block fractions and their effects on membrane fouling. **Water Research**, Vol 47(17), 6618-27. *(Published 1-Nov-13)*
57. Liu ZH, Zhou Y, Maszenan AM, Ng WJ and Liu Y. pH-Dependent Transformation of Ag Nanoparticles in Anaerobic Processes. **Environmental Science & Technology**, Vol 47(22), 12630–12631. *(Published 8-Nov-13)*
58. Liu ZH, Yin H, Dang Z and Liu Y. Dissolved Methane: A Hurdle for Anaerobic Treatment of Municipal Wastewater. **Environmental Science & Technology** 48 (2), 889–890. *(Published 27-Dec-13)*
59. Agarwal A., Ng W.J. and Liu Y. Removal of biofilms by intermittent low-intensity ultrasonication triggered bursting of microbubbles. **Biofouling**, Vol 30(3), 359-365. *(Published 26-Feb-14)*
60. Zhang, D.Q., Hua, T., Xiao, F., Chen, C.P., Gersberg, R.M., Liu, Y., Ng, W.J., Tan, S. K., 2014. Uptake and accumulation of CuO nanoparticles and CdS/ZnS quantum dot nanoparticles by *Schoenoplectus tabernaemontani* in hydroponic mesocosms. **Ecological Engineering**, Vol 70, 114-123. *(Published September 2014)*
61. Zhang, D.Q., Jinadasa, K.B.S.N., Gersberg, R.M., Liu, Y., Ng, W.J., Tan, S. K.. Application of constructed wetlands for wastewater treatment in

- developing countries – A review of recent developments (2000-2013). **Journal of Environmental Management**, Vol 141, 116-131. *(Published 1-Aug-14)*
62. Zhang, D.Q., Hua, T., Xiao, F., Chen, C.P., Gersberg, R.M., Liu, Y., Ng, W.J., Tan, S. K. Phytotoxicity and uptake of ZnO nanoparticles by *Schoenoplectus tabernaemontani*. **Chemosphere**, Vol 120, 211-9. *(Published February 2015)*
63. Zhang, D.Q., Ni, W.D., Hua, T., Gersberg, R.M., Liu, Y., Ng, W.J., Tan, S. K. Performance characterization of pharmaceutical removal by horizontal subsurface flow constructed wetlands using multivariate analysis. **Clean - Water Air Soil**, Vol 43(8), 1181-1189. *(Published August 2015)*
64. Yanping Zhou, **Dan Yang**, Yi Zeng, Yan Zhou, Wun Jern Ng, Qingyu Yan, Eileen Fong. Recycling Bacteria for the Synthesis of LiMPO₄ (M = Fe, Mn) Nanostructures for High-Power Lithium Batteries. **Small**, Vol 10(19), 3997-4002. *(Published 15-Oct-14)*
65. **Chuan Hao Tan**, Kai Shyang Koh, Chao Xie, Martin Tay, Yan Zhou, Rohan Williams, Wun Jern Ng, Scott A Rice and Staffan Kjelleberg. The role of quorum sensing signalling in EPS production and the assembly of a sludge community into aerobic granules. **The ISME Journal**, Vol 8(6), 1186-97. *(Published June 2014)*
66. **Harish Venkatakrishnan**, Youming Tan, Maszenan bin Abdul Majid, Santosh Pathak, Antonius Yudi Sendjaja, Dongzhe Li, Jerry Jian Lin Liu, Yan Zhou, Wun Jern Ng. Effect of a high strength chemical industry wastewater on microbial community dynamics and mesophilic methane generation. **Journal of Environmental Sciences**, Vol 26(4), 875-884. *(Published 1-Apr-14)*
67. Thliveros, P., Uçkun Kiran, E., Webb, C. Microbial biodiesel production by direct methanolysis of oleaginous biomass. **Bioresource Technology**, Vol 157, 181–187. *(Published April 2014)*
68. Uçkun Kiran, E., Trzcinski, A. P., Ng, W.J., Yu, L. Bioconversion of food waste to energy: a review. **Fuel** 134, 389-399. *(Published 15-Oct-14)*
69. Uçkun Kiran, E., Trzcinski, A. P., Ng, W.J., Yu, L. Enzyme production from food wastes using a biorefinery concept: a review. **Waste and Biomass valorization**, Vol 5(6), 903-917. *(Published December 2014)*
70. Kunacheva C. and Stuckey C.D. Analytical methods for soluble microbial products (SMP) and extracellular polymers (ECP) in wastewater treatment systems: A review. **Water Research**, Vol 61, 1-18. *(Published 15-Sep-14)*
71. Zhang, Q., Jie, Y. W., Loong, W. L. C., Zhang, J., Fane, A. G., Kjelleberg, S., Rice, S. A. and McDougald, D. Characterization of biofouling in a lab-scale forward osmosis membrane bioreactor (FOMBR). **Water Research**, Vol 58, 141-151. *(Published 1-Jul-14)*
72. **Tian X.**, Trzcinski A., Chong W., Lin L. and Ng W. J., 2014. Insights on the solubilization products after combined alkaline and ultrasonic pre-treatment of

sewage sludge. **Journal of Environmental Sciences**, Vol 29, 97-105. *(Published 1-Mar-15)*

73. Uckun K. E., Trzcinski A. P., Liu Y. and Ng W. J. Enzyme production from food wastes using a biorefinery concept: a review. **Waste & Biomass Valorization**, Vol 5(6), 903-917. *(Published December 2014)*
74. Tian X., Trzcinski A., Chong W., Lin L. and Ng W. J., Interpreting the synergistic effect in combined ultrasonication - ozonation sewage sludge pre-treatment. **Chemosphere**, Vol 140, 63-71. *(Published December 2015)*
75. Uckun K. E., Trzcinski A. P. and Liu Y. Platform chemicals production from food wastes using a biorefinery concept. **Journal of Chemical Technology and Biotechnology**, Vol 90(8), 1364-1379. *(Published August 2014)*
76. Uckun K. E., Trzcinski A. P. and Liu Y. Glucoamylase production from food waste by solid state fermentation and its evaluation in the hydrolysis of domestic food waste. **Biofuel Research Journal**, Vol 1(3), 98-105. *(Published April 2014)*
77. Trzcinski A., Tian X., Chong W., Lin L. and Ng W. J. Combined Ultrasonication and thermal pre-treatment of Waste Activated Sludge to increase biogas production. **Journal of Environmental Science & Health, Part A**. 50(2), 213-223. *(Published January 2015)*
78. Jaslyn Jie Lin Lee, Liwei Chen, Jiahua Shi, Antoine Trzcinski and Wei-Ning Chen. Metabolic profiling of *Rhodospiridium toruloides* grown on glycerol for carotenoid production during different growth phases. **Journal of Agricultural and Food Chemistry**, Vol 62(41), 10203-9, doi: 10.1021/jf502987q. *(Published October 2014)*
79. D.B.H. Tay, Z. Lin, S. Murugesan. Orthogonal Wavelet Filters with Minimum RMS Bandwidth. **IEEE Signal Processing Letters**, Vol 21(7), 819-823. *(Published July 2014)*
80. X. P. Lai, Z. Lin. Optimal Design of Constrained FIR Filters Without Phase Response Specifications. **IEEE Trans. Signal Processing**, vol. 62(17), 4532-4546. *(Published September 2014)*
81. Y. Wong, J. Chao, Z. Lin, R.J. Ober. Effect of time discretization of the imaging process on the accuracy of trajectory estimation in fluorescence microscopy. **Optical Express**, Vol. 22(17), 20396-20420. *(Published August 2014)*
82. Nan Liu, Zhi Xiong Koh, Junyang Goh, Zhiping Lin, Benjamin Haaland, Boon Ping Ting and Marcus Eng Hock Ong. Prediction of adverse cardiac events in emergency department patients with chest pain using machine learning for variable selection. **BMC Medical Informatics and Decision Making**, Vol. 14, No. 75. *(Published 23-Aug-14)*

83. J. Cao, Z. Lin. Bayesian signal detection with compressed measurements, **Information Sciences**, Vol. 289, 241–253. *(Published 24-Dec-14)*
84. Tian X., Wang C. Trzcinski A.P., Lin L. and Ng W.J. Interpreting the synergistic effect in combined ultrasonication-ozonation sewage sludge pre-treatment, **Chemosphere**, Vol 140, 63-71. *(Published December 2015)*
85. Jian Lin Chen, Raphael Ortizb, Terry W.J. Steele and David C. Stuckey. (2014) Toxicants inhibiting anaerobic digestion: **A review. Biotechnology Advances**, Vol 32(8), 1523-1534. *(Published December 2014)*
86. Sendjaja AY, Tan Y, Pathak S, Zhou Y, Bin Abdul Majid M, Liu JL, Ng WJ. (2014) Regression based state space adaptive model of two-phase anaerobic reactor. *Chemosphere*. doi:10.1016/j.**Chemosphere**, Vol 140, 159-166. *(Published December 2014)*
87. Lim C.-P., Zhang S., Zhou Y., Ng W.J. (2015) Enhanced carbon capture biosorption through process manipulation. **Biochemical Engineering Journal**, Vol 93, 128-136. DOI:10.1016/j.bej.2014.10.003. *(Published 15-Jan-15)*
88. Xiao Y., De Araujo C., Sze C.C. and Stuckey D.C. Toxicity measurement in biological wastewater treatment processes: A review. **Journal of Hazardous Materials**, Vol 286, pp15-29. *(Published 9-Apr-15)*
89. Yogananda Maspolim, Yan Zhou, Chenghong Guo, Keke Xiao, Wun Jern Ng. The effect of pH on solubilization of organic matter and microbial community structures in sludge fermentation. **Bioresource Technology**, Vol 190, pp289-298. *(Published April 2015)*
90. Keke Xiao, Yan Zhou, Chenghong Guo*, Yogananda Maspolim, Wun-Jern Ng. Dynamics of propionic acid degradation in a two-phase anaerobic system. **Chemosphere**, Vol 140, pp47-53. *(Published December 2015)*
91. Yogananda Maspolim, Yan Zhou, Chenghong Guo*, Keke Xiao, Wun Jern Ng. Comparison of single-stage and two-phase anaerobic sludge digestion. **Chemosphere** Vol 140, pp54-62. *(Published December 2015)*
92. Keke Xiao, Yan Zhou, Chenghong Guo*, Yogananda Maspolim and Wun Jern Ng. Impact of undissociated volatile fatty acids on acidogenesis in a two-phase anaerobic system. **Journal of Environmental Science**, Vol 42, pp196-201. *(Published April 2016)*
93. Keke Xiao, Chenghong Guo, Yan Zhou*, Yogananda Maspolim and Wun Jern Ng** (2015). Acetic acid effects on methanogens in the second stage of a two-stage anaerobic system. **Chemosphere**, Vol 144, pp1498-1504 *(Published February 2016)*

94. Jian Lin Chen, **Raphael Ortiz**, Yeyuan Xiao, Terry W.J. Steele and David C. Stuckey. 2015. Rapid fluorescence-based measurement of toxicity in anaerobic digestion. **Water Research** 75: 123-130. *(Published 15-May-15)*
95. Xiao Y., De Araujo C., Sze C.C. and Stuckey D.C. (2015) Controlling a toxic shock of pentachlorophenol (PCP) to anaerobic digestion using activated carbon addition. **Bioresource Technology** 181, 303-311, *(Published January 2015)*
96. Uçkun Kiran, E., Trzcinski, A. P., & Liu, Y. Enhancing the hydrolysis and methane production potential of mixed food waste by an effective enzymatic pretreatment. **Bioresource Technology**, 183, pp47-52, *(Published May 2015)*
97. **Dongzhe Li**, Youming Tan, Yan Zhou, Santosh Pathak, Antonius Yudi Sendjaja, Maszenan Abdul Majid, Prannoy Chowdhury, Wun Jern Ng. Comparative study of low-energy ultrasonic and alkaline treatment on biosludge from secondary industrial wastewater treatment. **Environmental Technology**, Vol 36(17), pp2239-48, DOI:10.1080/09593330.2015.1025103 *(E-Published 02-Apr-15)*.
98. **Y. Maspolim**, Y. Zhou, C. H. Guo, K. K. Xiao, W. J. Ng. Determination of the archaeal and bacterial communities in two-phase and single-stage anaerobic systems by 454 pyrosequencing. **Journal of Environmental Sciences**, Vol 36, pp121-9 *(Published October 2015)*
99. **Leong Soon Poh**, Xie Jiang, Zhongbo Zhang, Yu Liu, Wun Jern Ng, Yan Zhou (July 2, 2015) N₂O accumulation from denitrification under different temperatures, **Applied Microbiology and Biotechnology**, Vol 99, pp 9215-26, doi: 10.1007/s00253-015-6742-7. *(Published November 2015)*
100. Balachandran Ketheesan & David C. Stuckey, Effects of Hydraulic/Organic Shock/Transient loads in Anaerobic Wastewater Treatment : A Review, **Critical Reviews in Environmental Science and Technology**, Vol 45 Issue 24, *(Published 7-May-15)*
101. Huang W., Wang Z., Zhou Y., Ng W. J., The Role of Hydrogenotrophic Methanogens and Hydrogen Regulated Performance in an Acidogenic Reactor. **CHEMOSPHERE** Volume: 140 Pages: 40-46 DOI: [10.1016/j.chemosphere.2014.10.047](https://doi.org/10.1016/j.chemosphere.2014.10.047), *(Published Dec 2015)*.
102. **Feng, H.** Zhou, Y., **Zhao, G.**, **Lee J.**, Guo, C., Ng, W.J., Chen, W.N., Analysis of Soluble Microbial Products by Mass Spectrometry: Potential in Monitoring Bioprocesses of Wastewater Treatment, **Journal of Analytical & Bioanalytical Techniques**, 2015, Volume 6, Issue 3. <http://dx.doi.org/10.4172/2155-9872.1000241>, *(Published 05-May-15)*.

103. L. Ganda, Y. Zhou, C. P. Lim, Y. Liu, W. J. Ng. Free nitrous acid inhibition on carbon storage microorganisms: Accumulated inhibitory effects and recoverability. **Chemical Engineering Journal**, Vol 287, pp285-291 (Published 1-Mar-16)
104. Ashutosh Agarwal, Yu Liu, Remediation technologies for oil-contaminated sediments, **Marine Pollution Bulletin**, Volume 101, Issue 2, , Pages 483-490. (Published 30-Dec-15)
105. **Guili Zhao**, Wei-Ning Chen, Enhanced PVDF membrane performance via surface modification by functional polymer poly(N-isopropylacrylamide) to control protein adsorption and bacterial adhesion. **Reactive and Functional Polymers**, **97 (2015) 19-29**. (Published December 2015).
106. Jianfeng Ping, Feng Gao, Jian Lin Chen, Richard Webster and Terry W. J. Steele. Adhesive curing through low-voltage activation. **Nature Communications** **6 (2015)**. DOI: 10.1038/ncomms9050. (Published 18-Aug-15).
107. Jian Lin Chen, Terry W.J. Steele and David C. Stuckey. Modeling and application of a rapid fluorescence-based assay for biotoxicity in anaerobic digestion. **Environmental Science & Technology (2015)**. DOI: 10.1021/acs.est.5b03050. (E-Published 27-Oct-15).
108. Huang, W. H., Wang, Z. Y., Zhou, Y. and Ng, W. J. (2015) The role of hydrogenotrophic methanogens in an acidogenic reactor. **Chemosphere**, 140 40-60 (Published Dec 2015)
109. Huang, W. H., Wang, Z. Y., Guo, Q. M., Wang, H. Z., Zhou, Y. and Ng, W. J. (2015) Pilot-scale landfill with leachate recirculation for enhanced stabilization. **Biochemical Engineering Journal**, 105 (2016) 437–445, (Published 26-Jan-16).
110. **L. S. Poh**, X. Jiang, Z. Zhang, Y. Liu, W. J. Ng, Y. Zhou. (2015) “N₂O accumulation from denitrification under different temperatures”, **Applied Microbiology and biotechnology**, Vol 99, page 9215-9224. (Published July 2015)
111. **Thanh, P.M.**, Ketheesan, B., Yan, Z., Stuckey, D. Trace metal speciation and bioavailability in anaerobic digestion: **A review Biotechnology Advances.**, Vol 34, Issue 2, pp 122-136 (Published March-April 2016)
112. **Lee, J. J.** Chen, L. . Chen, W. N. 2015. Engineering *Rhodospiridium toruloides* with a membrane transporter facilitates production and separation of carotenoids and lipids in a bi-phasic culture. **Applied Microb Biotech.**, Vol 100, Issue 2, pp 869-877 (Published January 2016)

113. Trzcinski, A.P., Ganda, L., Soh, Y.N.A., Kunacheva, C., Zhang, D.Q., Lin, L.L., Tao, G., Lee, Y., Ng, W.J., Identification of recalcitrant compounds in a pilot-scale AB system treating municipal wastewater. **Bioresource Technol.**, 206, 121-127. (Published April 2016)
114. Zhang, D.Q., Luo, J.X., Lee, Z.M.P., Maspolim, Y., Gersberg, R.M., Liu, Y., Ng, W.J., Tan, S.K., 2015. Characterization of bacterial communities in wetland mesocosms receiving ibuprofen-enriched wastewater. **Ecol. Eng.** 90: 215-224 (Published May 2016)
115. Weerakoon, G.M.P.R., Jinadasa, K.B.S.N., Herath, G.B.B., Mowjood, M.I.M.M., Zhang, D.Q., Ng, W.J., Tan, S.K., 2015. Performance of tropical vertical subsurface flow constructed wetlands at different hydraulic loading rates. **CLEAN - Soil, Air and Water**, DOI: 10.1002/clen.201500101. (E-Published 13-Apr-16)
116. Zhang, D.Q., Gersberg, R.M., Ng, W.J., Tan, S.K., 2015. Centralized versus decentralized stormwater management: case studies of Singapore and Berlin, Germany. **Urban Water Journal** 10.1080/1573062X.2015.1076488 (Published 01-Sep-15)
117. Yogananda Maspolim, Chenghong Guo, Keke Xiao, Yan Zhou, and Wun Jern Ng. "Performance and microbial community analysis in alkaline two-stage enhanced anaerobic sludge digestion system." **Biochemical Engineering Journal** 105 (2016): 296-305. (Published 15-Jan-16)
118. Dongzhe Li, Yan Zhou, Youming Tan, Santosh Pathak, Maszenan bin Abdul Majid, Wun Jern Ng. Alkali-solubilized organic matter from sludge and its degradability in the anaerobic process. **Bioresource Technology**. Volume 200, pages 579-586. (Published Jan16)
119. Ketheesan, B., Thanh PM, Stuckey, D.C. Iron deficiency and bioavailability in anaerobic batch and submerged membrane bioreactors (SAMBR) during organic shock loads: **Bioresource Technology** 211: 136-145, 2016 (Published July16)
120. Chencheng Le, D. C. Stuckey., Colorimetric Measurement Carbohydrates in Biological Wastewater Treatment Systems: A Critical Evaluation, **Water Research**, 2016, 94 (6), 280-287. doi: 10.1016/j.watres.2016.03.008 (E-Published 3-Mar-16)
121. Chencheng Le, C. Kunacheva, and D. C. Stuckey., "Protein" Measurement in Biological Wastewater Treatment Systems: A Critical Evaluation, **Environmental Science & Technology**, 2016, 50 (6), 3074-3081 (Published 18-Feb-16)
122. M. Ren, H. Cai, L. K. Chin, K. Radhakrishnan, Y. D. Gu, G. Q. Lo, D. L. Kwong and A. Q. Liu, "coupled-ring reflector in an external cavity tunable laser," **Optica**, Vol. 2, No. 11, pp. 940-943, 2015. (Published 4-Nov-15).
123. B. Dong, H. Cai, L. K. Chin, J. G. Huang, Z. C. Yang, Y. D. Gu, G. I. Ng, W. Ser, D. L. Kwong, and A. Q. Liu, "A silicon-nanowire memory driven by optical gradient force induced bistability," **Applied Physics Letters**, Vol. 107, 261111, 2015. (Published 30-Dec-15).