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RESEARCH INTERESTS

Energy/Resources Productive Wastewater Treatment

Water/Wastewater Membrane and Electrochemical Technologies

Sustainable Watershed Management

Environmental Emerging Contaminants

EDUCATION

Oct 2010 to Sep 2013	Ph.D. in Urban Engineering, The University of Tokyo, Japan
Oct 2012 to Dec 2012	Exchange scholar, RWTH Aachen University, Germany
Sep 2008 to July 2010	M.E. in Environmental Science and Engineering, Tsinghua University, China
Sep 2004 to July 2008	B.E. in Environmental Science and Engineering, Tsinghua University, China

PROFESIONAL EXPERIENCE

Apr 2018 to date	Assistant Professor, Asian Institute of Technology, Thailand
Aug 2017 to Mar 2018	Research Specialist, Asian Institute of Technology, Thailand
Oct 2015 to Apr 2017	Foreign lecturer and postdoctoral fellow, Chulalongkorn University, Thailand
Nov 2013 to Sep 2015	Environmental Consultant and Engineer, ERM Japan Ltd., Japan

RESEARCH/ENGINEERING PROJECTS

Jan 2018 to Dec 2022	"DBAR International Center of Excellence for integrated research on climate change, environment protection, and natural resources management." granted by Digital Belt and Road Program, Chinese Academy of Sciences, initiator and key member.
Jan 2018 to Dec 2020	"Simultaneous wastewater treatment with electricity generation based on pressure retarded osmotic microbial fuel cell technology." granted by National Natural Science Foundation of China (NSFC), Principal Investigator.
Jan 2017 to Dec 2020	International Joint Project on "Biogeochemical changes and adaptation mechanisms in response to anthropogenic impacts in watersheds: A comparative study between Jiulong River (China) and Chao Phraya River (Thailand)" granted by National Research Council of Thailand (NRCT) and

	National Natural Science Foundation of China (NSFC), key member of the Asian Institute of Technology project team.
Aug 2016 to July 2017	"Development of a Novel Catalytic Forward Osmosis Membrane for Industrial Wastewater Reuse" granted by the KWEF-AIT Research Grant, Principal Investigator.
Aug 2016 to July 2017	"Development of Appropriate Urban Water Reuse Technology for Mitigation of Water Scarcity Problem" granted by National Research Council of Thailand (NRCT), key member of the Chulalongkorn University project team.
Oct 2014 to Sep 2015	"In-situ Thermal Remediation of a Volatile Organic Compounds Contaminated Site at Nagoya in Japan", engineer of the ERM Japan project team.
Jan 2014 to May 2014	"Detailed Delineation of Petroleum Soil Contamination using Modeling Approach at Urawa City in Japan", consultant of the ERM Japan project team.
Oct 2010 to Sep 2013	"Resources Productive Membrane Integral-system for Sewage" granted by New Energy and Industrial Technology Development Organization (NEDO) and Japan Society of the Promotion of Science (JSPS), research member at the Department of Urban Engineering, The University of Tokyo.
Sep 2004 to Jul 2010	"Study on Monitoring, Assessment and Treatment Technologies for Reduction of Risk Caused by Water Reuse" granted by National Science Foundation of China (NSFC) and Japan Science and Technology Agency (JST), research member at Tsinghua University.

TEACHING & CO-SUPERVISING STUDENT RESEARCH

Aug 2017 to Date	**Asian Institute of Technology, Bangkok, Thailand** • Co-supervising students in the Master Program
Oct 2015 to April 2017	**Chulalongkorn University, Bangkok, Thailand** **At postgraduate level** • Lecturer: Environmental Membrane Technology • Co-lecturer: Theory and Design of Advanced Water Treatment Processes • Guest lecturer: Theory and Design of Advanced Wastewater Treatment Processes • Guest lecturer: Advanced Seminar in Environment Engineering • Co-supervising students in the Master Program
Mar 2009 to Jul 2009	**Tsinghua University, Beijing, China** • Teaching assistant: Water Pollution Control Technology

Jan 2010 to May 2010	• Co-supervising students in the Bachelor Graduation Program on the laboratory experiment

HONORS & AWARDS

June 2016	Kurita Water and Environmental Foundation-AIT Research Grant
Jan 2016	UNEP Fellowship to participate in the UN Winter School on Sustainable Consumption and Production, Asian Institute of Technology
Oct 2015 to Sep 2016	Postdoctoral Fellowship supported by Ratchadaphiseksomphot Endowment Fund from Graduate School, Chulalongkorn University
Oct 2010 to Sep 2013	Japanese Government (MEXT) Scholarship
Jun 2010	Best Thesis Award, Water Environment Preservation Award of the Asahi Kasei Water Environment Preservation Foundation
Sep 2009	Best Student Paper, Beijing-Tianjin-Tangshan Membrane Technology Seminar
Oct 2007	Academic Scholarship of Tsinghua University
Oct 2006	Academic Scholarship of Tsinghua University

PUBLICATIONS

Impact factor: 31.707, Scopus citation: 163, H-index: 6 (Mar 2018)

1. **Wenchao Xue**, Kang Xiao, Peng Liang, Xia Huang, Roles of Membrane and Organic Fouling Layers on the Removal of Endocrine Disrupting Chemicals in Microfiltration, *Journal of Environmental Sciences*, 2018, in press. (SCI IF: 2.937)
2. **Wenchao Xue**, Kazuo Yamamoto, Tomohiro Tobino, Chavalit Ratanamskul, Modeling Prediction of the Process Performance of Seawater-Driven Forward Osmosis for Nutrients Enrichment: Implication for Membrane Module Design and System Operation, *Journal of Membrane Science*, 2016, 515, 7-21. (SCI IF: 6.035)
3. **Wenchao Xue**, Kazuo Yamamoto, Tomohiro Tobino, Membrane Fouling and Long-Term Performance of Seawater-Driven Forward Osmosis for Enrichment of Nutrients in Treated Municipal Wastewater, *Journal of Membrane Science,* 2016, 499, 555-562. (SCI IF: 6.035)
4. **Wenchao Xue**, Tomohiro Tobino, Fumiyuki Nakajima, Kazuo Yamamoto, Seawater-Driven Forward Osmosis for Enriching Nitrogen and Phosphorous in Treated Municipal Wastewater: Effect of Membrane Properties and Feed Solution Chemistry, *Water Research*, 2015, 69, 120-130. (SCI IF: 6.942)
5. **Wenchao Xue**, Tomohiro Tobino, Kazuo Yamamoto, Nutrient Recovery Performance by Forward Osmosis Membrane Filtration from Wastewater treated by Inclined Tube-Membrane Bioreactor, *Proceedings of 49th Sewer Research Symposium*, 2012, 223-225.
6. **Wenchao Xue**, Chunying Wu, Kang Xiao, Xia Huang, Haidong Zhou, Hiroshi Tsuno, and Hiroaki Tanaka, Elimination and Fate of Selected Micro-organic Pollutants in a Full-scale Anaerobic/Anoxic/Aerobic Process Combined with Membrane Bioreactor for Municipal Wastewater Reclamation, *Water Research*, 2010, 44(20), 5999-6010. (SCI IF: 6.942)

7. Chunying Wu, **Wenchao Xue**, Haidong Zhou, Xia Huang, and Xianghua Wen, Removal of Endocrine Disrupting Chemicals in A Large Scale Membrane Bioreactor Plant Combined with Anaerobic-Anoxic-Oxic Process for Municipal Wastewater Reclamation, *Water Science & Technology*, 2011, 64(7):1511-1518. (SCI IF: 1.197)
8. Yingjun Zhou, Xia Huang, Haidong Zhou, Jianhua Chen, **Wenchao Xue**, Removal of Typical Endocrine Disrupting Chemicals by Membrane Bioreactor: in Comparison with Sequencing Batch Reactor, *Water Science & Technology*, 2011, 64(10):2096-2102. (SCI IF: 1.197)
9. Yinghui Mo, Jianhua Chen, **Wenchao Xue**, Xia Huang, Chemical Cleaning of Nanofiltration Membrane Filtrating the Effluent from a Membrane Bioreactor, *Separation & Purification Technology*, 2010, 75, 407-414. (SCI IF: 3.359)

INVITED TALKS/CONFERENCES

1. Invited lecture on "Innovative Membrane Technologies for Sustainable Urban Water Solution —An exploration on the future potential of forward osmosis technology" at School of Environment Science and Engineering, Sun Yat-Sen University, 26 March 2018, Guangzhou, China.
2. Invited lecture on "Forward Osmosis: A Green Technology for Future Water Solution?" at Department of Environmental Engineering, Chulalongkorn University, 2 October 2016, Bangkok, Thailand.
3. Monthip Sriratana, **Wenchao Xue**, Allan S. Tabucanon, Capacity Building of Big-Data from Earth Observation for Water and Land Management in Thailand, The 2nd International Conference of Digital Belt and Road, 6-8 December 2017, Hongkong, China
4. **Wenchao Xue** and Monthip Sriratana, Watershed Management and Land Use Expansion: A Case Study on Cha-am Municipality, Phetchaburi Province, Thailand, 2nd International Workshop on Urbanization in Watersheds: Towards A Sustainable Urbanization, 26-28 October 2016, Xiamen, China.
5. **Wenchao Xue**, Kazuo Yamamoto, Tomohiro Tobino, Chavalit Ratanamskul, Modeling Prediction of the Process Performance of Seawater-Driven Forward Osmosis for Nutrients Enrichment: Implication for Membrane Module Design and System Operation, 5th IWA Regional Conference on Membrane Technology, 22-28 August 2016, Kunming, China.
6. Tomohiro Tobino, Jinxian Chen, **Wenchao Xue**, Osamu Sawai, Teppei Nunoura, Kazuo Yamamoto, Resources Productive Membrane Integral-System for Sewage, IDA World Congress 2013 on Desalination and Water Reuse, 20-25 October 2013, Tianjin, China.
7. **Wenchao Xue**, Tomohiro Tobino, KazuoYamamoto, Long-term Operation and Membrane Fouling Properties of A Seawater Driven Forward Osmosis for Concentrating Nutrients in treated Municipal Wastewater, 7th IWA Specialized Membrane Technology Conference, 25-29 August 2013, Toronto, Canada.
8. **Wenchao Xue**, Tomohiro Tobino, Fumiyuki Nakajima, Kazuo Yamamoto, Modeling Simulation of Forward Osmosis Plate Membrane Modules for Concentrating Nutrients, Water and Environment Technology Conference 2013, 15-16 June 2013, Tokyo, Japan.

9. **Wenchao Xue**, Tomohiro Tobino, Kazuo Yamamoto, Effects of Chemical and Physical Parameters on Nitrogen Retention by Cellulose Triacetate FO Membrane, IWA 3rd Regional Conference in Membrane Technology, 3-6 December 2012, Buenos Aires, Argentina.
10. **Wenchao Xue**, Tomohiro Tobino, Kazuo Yamamoto, Characteristics of Forward Osmosis (FO) on Concentrating Nutrients from Wastewater, IWA World Water Congress & Exhibition 2012, 16-21 September 2012, Busan, Korea.
11. **Wenchao Xue**, Tomohiro Tobino, Kazuo Yamamoto, Nutrient Recovery Performance by Forward Osmosis Membrane Filtration from Wastewater treated by Inclined Tube-Membrane Bioreactor, The 49th Sewer Research Symposium, July 2012, Kobe, Japan.
12. **Wenchao Xue**, Tomohiro Tobino, Kazuo Yamamoto, Fundamental Performance of Forward Osmosis on Nutrients Recycling from MBR Effluent. The 46th Annual Conference of Japan Society on Water Environment, April 2012, Tokyo, Japan.