
Xuechen Zhou

Email: xuechen.zhou@yale.edu

Address: Room 511, 17 Hillhouse Ave, New Haven, CT 06511, USA

Education

Doctor of Philosophy Anticipated May 2021

Environmental Engineering, Department of Chemical and Environmental Engineering, Yale University

Bachelor of Engineering Jun. 2015

Environmental Engineering, School of Environment, Tsinghua University

Bachelor of Science Jun. 2015

Economics, School of Economics and Management, Tsinghua University

Research Experience

Membrane Modification with Atomic Layer Deposition (ALD) Technique Sep. 2016 - now

Modification of the Ion Exchange Membrane for Redox Flow Battery System May. 2016 - Jul. 2016

Structure and Electrode Optimization of Flow-through Capacitive Deionization Reactor Sep. 2014 - Jul. 2015

Scaling Up of the Stackable Microbial Fuel Cell (S-MFC) Jun. 2013 - May 2014

Scaling Up of the Stacked Microbial Desalination Cell (S-MDC) Feb. 2013 - Jul. 2013

Fabrication of Carbon Filtration Cathode for Microbial Fuel Cell Dec. 2012 - May 2013

Publications

Zhou, X.*, Zhao, Y. Y.*, Kim, S. R., Elimelech, M., Hu, S., Kim, J. H. Controlled TiO₂ Growth on Reverse Osmosis and Nanofiltration Membranes by Atomic Layer Deposition: Mechanisms and Potential Applications. *Environmental science & technology*. 2018, 52(24), 14311-14320. (* Equal Contribution)

Shi, W.*, Zhou, X.*, Li, J., Meshot, E. R., Taylor, A. D., Hu, S., Kim, J. H., Elimelech, M., Plata, D. L. High-Performance Capacitive Deionization via Manganese Oxide-Coated, Vertically Aligned Carbon Nanotubes. *Environmental Science & Technology Letters*. 2018, 5(11), 692-700. (* Equal Contribution)

Sun, M., Zucker, I., Davenport, D. M., Zhou, X., Qu, J., Elimelech, M. Reactive, self-cleaning ultrafiltration membrane functionalized with iron oxychloride nanocatalysts. *Environmental Science & Technology*. 2018, 52(15), 8674-8683.

Shah, A., Zhou, X., Brezovec, P., Markiewicz, D., Joo, Y. Conductive Membrane Coatings for High-Rate Vanadium Redox Flow Batteries. *ACS OMEGA*. 2018, 3(3), 1856-1863

Wu, S., Li, H., Zhou, X., Liang, P., Zhang, X., Jiang, Y., Huang, X. A novel pilot-scale stacked microbial fuel cell for efficient electricity generation and wastewater treatment. *Water Research*. 2016, 98, 396-403.

Zuo, K., Liang, S., Liang, P., Zhou, X., Sun, D., Zhang, X., Huang, X. Carbon filtration cathode in microbial fuel cell to enhance wastewater treatment. *Bioresource Technology*. 2015, 185, 426-430.

Honors and Awards

Outstanding Graduate Award of Beijing Jul. 2015

Excellent Graduate Award of Tsinghua University	Jul. 2015
Tsinghua-Ronghua Zhang Scholarship	Oct. 2014
"Veolia" Top Creative Talent Scholarship for Outstanding Individuals	Jun. 2014
Tsinghua-Hach Water Quality Scholarship	Apr. 2014
Tsinghua-Hengda Scholarship	Sep. 2013
First Prize, National Undergraduate Physics Competition	Dec. 2012
National Scholarship	Sep. 2012