

Li Wang

Chemical and Environmental Engineering, Yale University. Email: li.wang.lw722@yale.edu

EDUCATION AND TRAINING

Ph.D., Environmental Engineering, Vanderbilt University, TN Advisor: Dr. Shihong Lin	2019
M.Sc., Civil Engineering, Texas A&M University, College Station, TX Advisor: Dr. Bill Batchelor	2015
B.E., Environmental Engineering, Wuhan University, China	2011
Exchange Student, Environmental Technology, Ghent University, Belgium	2012

RESEARCH INTERESTS

Transport Phenomena, Capacitive Deionization, Electrodialysis, Water-Energy Nexus, Water/Wastewater Treatment

PROFESSIONAL SERVICES

Members of Professional Organizations

- American Chemical Society (ACS)

Reviewer for Academic Journals

- ACS Sustainable Chemistry & Engineering
- Desalination and Water Treatment
- Chemical Engineering Journal
- Environmental Science & Technology
- Environmental Science & Technology Letters
- Environmental Science: Nano
- Environmental Science and Pollution Research
- Journal of Water Process Engineering
- Science of the Total Environment
- Separation and Purification Technology
- Water Research

PUBLICATIONS

**indicates corresponding author*

- **Li Wang***, and Li Zhang*, Enhancing performance of capacitive deionization with polyelectrolyte-infiltrated electrodes: theory and experimental validation, submitted to *Environmental Science & Technology*.
- **Li Wang**, Changyong Zhang, T. David Waite, and Shihong Lin*, Equivalent film-electrode model for flow-electrode capacitive deionization, submitted to *Water Research*.
- Huixia Lu, **Li Wang**, Ryszard Wycisk, Peter N. Pintauro, Shihong Lin*, Performance tradeoff in bipolar membrane electrodialysis, submitted to *Environmental International*.

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- Fei Gao, **Li Wang (co first-author)**, Jie Wang, Hongwei Zhang, and Shihong Lin*, Nutrient recovery from treated wastewater by a hybrid electrochemical sequence integrating bipolar membrane electrodialysis and membrane capacitive deionization, *Environmental Science: Water Science & Technology*, 2020.
 - **Li Wang**, and Shihong Lin*, Mechanism of selective ion removal in membrane capacitive deionization for water softening, *Environmental Science & Technology*, 2019, 53, 5797-5804.
 - **Li Wang**, and Shihong Lin*, Theoretical framework for designing a desalination plant based on membrane capacitive deionization, *Water Research*, 2019, 158, 359-369.
 - **Li Wang**, Jouke Dykstra, and Shihong Lin*, Energy efficiency of capacitive deionization, *Environmental Science & Technology*, 2019, 53, 3366-3378.
 - Fei Ji, **Li Wang (co first-author)**, Shihong Lin*, and Zheng Chen*, Highly compact, free-standing porous electrodes from polymer-derived nanoporous carbons for efficient electrochemical capacitive deionization, *Journal of Material Chemistry A*, 2018, 7, 1768-1778.
 - **Li Wang**, and Shihong Lin*, Membrane Capacitive deionization with constant current vs constant voltage charging: which is better? *Environmental Science & Technology*, 2018, 52, 4051-4060.
 - **Li Wang**, and Shihong Lin*, Intrinsic tradeoff between kinetic and energetic efficiencies in membrane capacitive deionization, *Water Research*, 2018, 129, 394-401.
 - **Li Wang**, P.M. Biesheuvel, and Shihong Lin*, Reversible thermodynamic cycle analysis for capacitive deionization with modified Donnan model, *Journal of Colloid and Interface Science*, 2018, 512, 522-528.
 - **Li Wang***, Bill Batchelor, Suresh Pillai, and V.S.V. Botlaguduru, Electron Beam Treatment for Potable Water Reuse: Removal of Bromate and Perfluorooctanoic Acid, *Chemical Engineering Journal*, 2016, 302, 58-68.

PRESENTATIONS

- Wang, L., Gularte, C., Mai, D., Tran, J., “Decatur wastewater treatment plant student design proposal”, Texas Water Conference, Water Environment Association of Texas, Dallas, April 2014
- Wang, L., Lin, S., “Can capacitive deionization outcompete reverse osmosis in energy efficiency”, AEESP Biannual Conference, Ann Arbor, Michigan, 2017
- Wang, L., Lin, S., “Mechanism of selective ion removal in membrane capacitive deionization for water softening”, ACS National Meeting, Orland, Florida, 2019

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- Wang, L., Lin, S., “Mechanism of selective ion removal in membrane capacitive deionization for water softening”, International Conference on Capacitive Deionization and Electrosorption, Beijing, 2019

HONORS

- 2019 Best poster award, International Conference on Capacitive Deionization and Electrosorption
- 2019 Graduate Student Award in Environmental Chemistry, American Chemical Society (ACS)
- 2015 James C. Nagle Memorial Fellowship, Zachry Department of Civil Engineering, Texas A&M
- 2014 Third Place of Student Design Competition, Water Environment Association of Texas
- 2012 Tim Kramer Fellowship, Zachry Department of Civil Engineering, Texas A&M
- 2010 Erasmus Mundus Scholarship, European Commission
- 2009 Trimble scholarship, Trimble Navigation Ltd. & Wuhan University
- 2008 National Scholarship, Ministry of Education (China)