

Faculty Curriculum Vitae

NAME: Devin L. Shaffer
POSITION/TITLE: Assistant Professor, Civil & Environmental Engineering
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EDUCATIONAL BACKGROUND/TRAINING

Ph.D. Chemical & Environmental Engineering, Yale University, 2016
M.Eng. Environmental Engineering, Massachusetts Institute of Technology, 2003
B.S. Civil Engineering, Oklahoma State University, 2002

RELEVANT TEACHING EXPERIENCE

2019 Instructor for CIVE 6390: Municipal Drinking Water Treatment, University of Houston
2019 Instructor for CIVE 3331H: Environmental Engineering, University of Houston
2018 Instructor for CIVE 6387: Physicochemical Treatment Processes, University of Houston
2014 Teaching assistant for Introduction to Environmental Engineering, Yale University
2013 Teaching assistant for Environmental Physicochemical Processes, Yale University
2012 Teaching assistant for Environmental Transport Processes, Yale University

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ACADEMIC SCHOLARSHIP/RESEARCH/CREATIVE ENDEAVORS

Research and Professional Experience:

- 2018-present Assistant Professor, Civil & Environmental Engineering Department,
University of Houston, Houston, TX
- 2016-2017 National Research Council (NRC) Postdoctoral Fellow
Functional Polymers Group, Materials Science and Engineering Division,
National Institute of Standards and Technology (NIST), Gaithersburg, MD
- 2011-2016 Graduate Research Assistant, Chemical & Environmental Engineering
Department, Yale University, New Haven, CT
- 2003-2011 Professional Engineer, Carollo Engineers, Inc., Phoenix, AZ

Recent Publications:

- 2019 **Shaffer D.L.**, Feldman, K.E., Chan, E.P., Stafford, G.R., and Stafford, C.M. Characterizing salt permeability in polyamide desalination membranes using electrochemical impedance spectroscopy. *Journal of Membrane Science*, 2019, 583, 248-257.
- 2018 **Shaffer D.L.**, LaManna J.M., Jacobson D.L., Hussey D.S., Elimelech M., and Chan E.P. Studying water and solute transport through desalination membranes via neutron radiography. *Journal of Membrane Science*, 2018, 548, 667-675.
- 2017 **Shaffer D.L.**, Tousley M.E., Elimelech M. Influence of polyamide membrane surface chemistry on gypsum scaling behavior. *Journal of Membrane Science*, 2017, 525, 249-256.
- 2016 Tousley M.E., **Shaffer D.L.**, Lee J.H., Osuji C.O., Elimelech M. Effect of Final Monomer Deposition Steps on Molecular Layer-by-Layer Polyamide Surface Properties. *Langmuir*, 2016, 32 (42), 10815-10823.
- 2015 **Shaffer D.L.**, Jaramillo H., Romero-Vargas Castrillón S., Lu X., and Elimelech M. Post-fabrication modification of forward osmosis membranes with a poly(ethylene glycol) block copolymer for improved organic fouling resistance. *Journal of Membrane Science*, 2015, 490, 209-219.
- 2015 **Shaffer D.L.**, Werber J.R., Jaramillo H., Lin S., and Elimelech M. Forward osmosis: Where are we now? *Desalination*, 2015, 356, 271-284.

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Awards:

- 2016 National Research Council (NRC) Postdoctoral Research Associateship Program award to conduct research at the National Institute of Standards and Technology
- 2012-2015 Science To Achieve Results (STAR) Graduate Research Fellowship award from the U.S. Environmental Protection Agency

Professional Licenses and Affiliations:

Registered Professional Civil Engineer, Arizona

North American Membrane Society

American Chemical Society, Polymeric Materials: Science and Engineering Division

Association of Environmental Engineering & Science Professors