# JISHAN WU, Ph.D.

P.C. Rossin College of Engineering & Applied Science
LEHIGH UNIVERSITY

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## EDUCATION

**Ph.D., Civil & Environmental Engineering** | Minor in **Chemical Engineering** Nov. 2023
***University of California, Los Angeles***

**M.S., Civil & Environmental Engineering** Jun. 2019
***University of California, Los Angeles***

**B.S., Environmental Engineering** Jun. 2018
***Wuhan University of Technology, China***

## RESEARCH EXPERIENCE

**Postdoctoral Fellow (*Rice Academy of Fellows*) (PI: Dr. Menachem Elimelech)** Jan. 2025 – present
***Rice University*** | ***Rice WaTER Institute***

- Designed covalent organic frameworks (COFs) and metal organic frameworks (MOFs) for $Li^{+}$, $Co^{2+}$, and $Ni^{2+}$ recovery.
- Enabled fundamental understanding on polymeric membrane nanostructure via controlled synthesis and MD simulations.
- Developed hybrid membrane processes for hypersaline brine concentration, valorization, and water reuse.

**Postdoctoral Associate (PI: Dr. Eric Hoek)** Nov. 2023 – Dec. 2024
***University of California, Los Angeles***

- Elucidated composite membrane behaviors under stress via controlled experiments and multiscale modeling.
- Designed high pressure reverse osmosis membrane processes for brine concentration enabling over 90% water recovery.
- Developed resilient high temperature reverse osmosis membranes for sustainable desalination and water reuse.

**Visiting Scholar (PI: Dr. Menachem Elimelech)** Jan. 2023 - Apr. 2023
***Yale University***

- Investigated water and solute transport using Quartz Crystal Microbalance with Dissipation (QCM-D).
- Operated QCM-D at ambient, high pressure, and high temperature conditions for polyamide film characterization.

**Graduate Student Researcher (PI: Dr. Eric Hoek)** Mar. 2019 - Dec. 2023
***University of California, Los Angeles***

- Patented compaction-resistant thin film crosslinked composite for ultrahigh pressure applications.
- Designed, procured, and built a point of use water filtration system, integrated with sensors monitoring water quality.
- Designed high performance RO membranes and collaborated with full-scale membrane factory for bulk production.

**Research Assistant (PI: Dr. Shaoxian Song)** Jun. 2016 - Jul. 2018
***Wuhan University of Technology, China***

- Synthesized novel adsorbent, calcined magnesium-ferri-lanthanum hydrotalcite-like compound, for fluoride removal.
- Prepared sustainable inorganic adsorbent for over 95% mercury removal from wastewater.

## AWARDS

- Rising Star of Desalination **(2026)** Desalination | Elsevier
- Young Researcher Best Oral Presentation Award **(2025)** Desalination Science and Technology Conference | Elsevier
- NWRI-SCSC Fellowship Award **(2023)** National Water Research Institute | Southern California Salinity Coalition
- NAMS Student Fellowship Award **(2023)** North American Membrane Society
- AMTA/Reclamation Fellowships for Membrane Technology **(2021)** American Membrane Technology Association | USBR
- CE&E Department Fellowship **(2019)** UCLA Henry Samueli School of Engineering and Applied Science

## PATENT

- **Wu, J.**, Hoek, E.M.V. High Performance Composite Membranes, U.S. Patent Application No. 63/516,805

## PUBLICATIONS

**First-Authored Publications** (†first author with equal contribution *corresponding author)

1. **Wu, J.,** Elimelech, M., Hoek*, E. et al. Resilient High-Temperature Reverse Osmosis Desalination Membranes*, **Science Advances,** (**2026**): aea1505.
2. Wang, Y.†, **Wu, J.†,** Sun, Y.*, Elimelech, M.* et al. Scalable Glass Composite Membranes for Highly Selective Lithium Enrichment, ***Nature Water,*** (**2026**): 1-13
3. **Wu, J.**, Elimelech, M., Hoek*, E. et al. Ultrahigh pressure compaction-resistant thin film crosslinked composite reverse osmosis membranes. ***Nature Communications,*** (**2025**): 8165.
4. **Wu, J.**, Elimelech, M., Li*, Y., Hoek*, E. et al. Role of Transmembrane Pressure and Water Flux in Reverse Osmosis Composite Membrane Compaction and Performance. ***Environmental Science & Technology,*** (**2025**): 59, 17, 8856–8866
5. **Wu, J.***, Elimelech, M., Hoek*, E. et al. Embossing-Free Permeate Carrier for Ultrahigh Pressure Reverse Osmosis, ***Environmental Science & Technology,*** (**2025**): 59, 48, 26261–26270
6. **Wu, J.**, Elimelech, M., Hoek*, E. et al. Non-destructive *In-operando* Imaging of Thin Film Composite Membrane Compaction Enhanced by AI-based Segmentation. ***Environmental Science & Technology Letters,*** (**2025**): 1069-1074.
7. He, J. †,*, **Wu, J.**† et al. Precise Intermolecular Force Modulation Enables Ultra-Selective and Superfast Water Transport across Polyamide Membranes, ***Journal of Materials Chemistry A.,*** (**2025**): 27425-27445.
8. **Wu, J.**, Hoek*, E. Current Opportunities and Challenges in Membrane-Based Brine Management, ***Current Opinion in Chemical Engineering,*** (**2025**): 101079.
9. Pataroque, K.†, **Wu, J.**†, Hoek*, E., Elimelech*, M. et al. Salt Partitioning and Transport in Polyamide Reverse Osmosis Membranes at Ultrahigh Pressures. ***Journal of Membrane Science Letters***, (**2024**): 100079.
10. **Wu, J.**, Elimelech, M., Hoek*, E. et al. Polyamide Reverse Osmosis Membrane Compaction and Relaxation: Mechanisms and Implications for Desalination Performance, ***Journal of Membrane Science***, (**2024**): 122893.
11. Anvari, A.†, **Wu, J.**†, Hoek*, E. et al. Membrane Brine Concentration: What it will Take to Get to 250,000 ppm via Ultra High-Pressure Reverse Osmosis. ***Desalination*** (**2024**): 117565.
12. **Wu, J.,** Hoek*, E. et al. Polymeric Membrane Sample Preparation for Scanning Electronic Microscopic Characterization. ***Journal of Membrane Science Letters***, (**2024**): 100073.
13. Quezada A.R.J.†, **Wu, J.**†, Hoek*, E. et al. Insights on the Chlorine Resistance of Resorcinol-based Thin Film Composite Membranes, ***Journal of Membrane Science,*** (**2024**): 122459.
14. **Wu, J.**, Hoek*, E. et al. Comparison of High-Pressure and Low-Pressure Fouling Detectors at a Full-Scale Seawater Reverse Osmosis Desalination Plant, ***Desalination and Water Treatment,*** 297(**2023**)1-16.
15. **Wu, J.**, Hoek*, E. et al. Reverse Osmosis Membrane Compaction and Embossing at Ultrahigh Pressure Operation. ***Desalination***, 537 (**2022**), 115875
16. **Wu, J.**, Hoek*, E. et al. Sustainable Desalination and Water Reuse. ***Morgan & Claypool Publishers***, **2021**
17. **Wu, J.**, Cao, M., Tong, D., Finkelstein, Z., Hoek*, E.M.V. A Critical Review of Point-of-Use Drinking Water Treatment in the United States. ***npj Clean Water,*** (**2021**): 4, 40.
18. **Wu, J.**, Song*, S. Efficient Removal of $Hg^{2+}$ in Aqueous Solution with Fishbone Charcoal as Adsorbent, ***Environmental Science and Pollution Research***, (**2018**): 25, 7709–7718

**Co-Authored Publications**

19. Appukuttan, S.*, **Wu, J.** et al. Performance of Triply Periodic Minimal Surfaces as feed channel spacers in Ultra-High Pressure Reverse Osmosis Applications, ***Desalination,*** (**2026**): 119959.
20. Pataroque, K., **Wu, J.**, Elimelech, M.* et al. Role of Frictional Forces in Salt and Water Transport through Polyamide

Reverse Osmosis Membranes, ***Journal of Membrane Science,*** (**2026**): 125202.

21. Wang, X., **Wu, J.**, Hoek*, E., Jassby*, D. et al. Predictive Modeling of Non-Solvent-Induced Phase Inversion in Mixed Matrix Membranes for Phosphate Recovery, ***Journal of Membrane Science,*** (**2025**): 125089.
22. Xiao, M., **Wu, J.**, Hoek*, E. et al. Nanobubbles as pore-forming agents in non-solvent induced phase separation of polysulfone ultrafiltration membranes, ***Chemical Engineering Journal,*** (**2025**): 166802
23. He, J*., **Wu, J.**, Yang, Y., Zhang, H., He, J., Tian, X., Wang, Q., Liu, Y., Wang, Q., L, L. High-efficiency water transport and boron removal in polyamide membranes enabled by surface-grafted self-assembled monolayer molecular brushes, ***Journal of Membrane Science,*** (**2025**): 123722.
24. He, J., Yang, Y., **Wu, J.,** Zhang, H., Tian, X., Liu, Y., Wang, Q. Confinement-tuned pore chemistry via molecular engineering enables high-efficiency water–boron selective transport in polyamide membranes, ***Journal of Chemical Theory and Computation***, (**2025**): 6594–6610**.**
25. Zhang, H., Jiang, Y., Yang, Y., **Wu, J.**, Wang, Q., Tian, X., Liu, Y., Wang, Q., L, L., Zhou, X,. He, J*. Molecular insights into the mechanism of polymer chain strategy enhancing boron separation efficiency in polyamide membranes, ***Separation and Purification Technology***, (**2025**): 131406.
26. Wang, X., Xiao, M., Kim, S., Zhang, J., Cha, M., Dickinson, A., Yang, F., Lam, K., Im, S., Hou, Z., **Wu, J.**,, Ren, Z., Maravelias, C., Hoek, E.M.V., Jassby*, D., Enhanced phosphate anion flux through single-ion, reverse-selective mixed-matrix cation exchange membrane. ***Journal of Membrane Science Letters,*** (**2024**): 100086.
27. Anderson, M, Danna, R., Clayton, F., **Wu, J.**, Thiel, M., Yang, Z., Hoek, E.M.V., Kaner*, R.B. Monolithic Polyepoxide Membranes for Nanofiltration Applications and Sustainable Membrane Manufacture. ***Polymers,*** 16.18 (**2024**): 2569.
28. Dlamini, D., Quezada A.R.J., **Wu, J.**, Xiao, M., Mackenzie, A., Kaner, R.B., Edalat, A., Voutchkov, N., Ahmoudi, A.A., Hoek*, E.M.V. On the role of the porous support membrane pore morphology in seawater reverse osmosis membrane properties and performance. ***Journal of Membrane Science,*** (**2024**): 123032.
29. Suleiman, Y., **Wu, J.**, Hoek, E.M.V., Shahbazmohamadi*, S. Characterization of Reverse Osmosis Membranes Under Compaction Utilizing 3D X-ray and 3D FIB Correlative Microscopy, ***Microscopy and Microanalysis***, (**2024**) 144-145
30. N. A., Sreejith, Hariswaran*, S., Day, M., Suleman, Y., Shabazmohamadi, S., **Wu, J.**, Hoek, E.M.V. Simulation of Reverse Osmosis Membrane Compaction Using Material Point Method (MPM). NREL/PO-2C00-85460, *National Renewable Energy Laboratory (NREL)*.
31. Im, S., Jung, B., Wang, X., **Wu, J.**, Xiao, M.,Chen, X., Quezada A.R.J., Iddya, A.,Dlamini, D., Lu, S., Maravelias, C., Ren, Z., Hoek, E.M.V., Jassby*, D., High-efficiency recovery of acetic acid from water using electroactive gas-stripping membranes. ***Environmental Science & Technology*** **2023**, 57, 27, 10096–10106
32. Wang, X., Im, S., Jung, B., **Wu, J.**, Chen, X., Quezada A.R.J., Xiao, M., Ma, S., Lu, S., Jaewon, B., Zhang, J., Ren, Z., Maravelias, C., Hoek, E.M.V., Jassby*, D., Simple and Low-Cost Electroactive Membranes for Ammonia Recovery. ***Environmental Science & Technology*** **2023**, 57, 25, 9405–9415
33. Jung. B., Ma, S., Khor, C.M., Khanzada, N.K., Anvari, A., Wang, X., Im, S., **Wu, J.**, Rao, U., An, A.K., Hoek, E.M.V., Jassby*, D. Impact of Polarity Reversal on Inorganic Scaling on Carbon Nanotube-Based Electrically-Conducting Nanofiltration Membranes, ***Chemical Engineering Journal,*** 452 (**2023**), 139216
34. Wu, P., Xia, L., Liu, Y., **Wu, J.**, Q. Chen, S. Song*, Simultaneous Sorption of Arsenate and Fluoride on Calcined Mg–Fe–La Hydrotalcite-Like Compound from Water, ***ACS Sustainable Chemistry & Engineering*** **2018**, 6, 16287–16297.
35. Jia, F., Wang, Q., **Wu, J.**, Li, Y., Song*, S. Two-Dimensional Molybdenum Disulfide as a Superb Adsorbent for Removing $Hg^{2+}$ from Water. ***ACS Sustainable Chemistry & Engineering,*** **2017**, 5 (8), 7410– 7419
36. Wu, P., **Wu, J.**, Xia, L., Liu, Y., Xu, L., Song*, S. Adsorption of Fluoride at the Interface of Water with Calcined Magnesium-Ferri-Lanthanum Hydrotalcite-Like Compound, ***RSC Advances***, **2017**,7, 26104-26112

## CONFERENCE PROCEEDINGS

1. **Wu, J.,** Hoek, E. Polyamide Reverse Osmosis Membrane Compaction and Relaxation: Mechanisms and Implications for Desalination Performance. *Proc. International Water Conference*, Las Vegas, NV, United States, Nov. 2024.
2. **Wu, J.,** Hoek, E. Thin Film Crosslinked Composite Ultra-high Pressure Reverse Osmosis Preparation. *Proc. AWWA/AMTA Membrane Technology Conference & Exposition (MTC24)*, West Palm Beach, FL, United States, Mar. 2024.
3. **Wu, J.,** Hoek, E. Challenges and opportunities in ultra-high pressure reverse osmosis operation. *Proc. International Water Conference*, San Antonio, TX, United States, Nov. 2023.
4. **Wu, J.,** Hoek, E. Sustainable Desalination via UHPRO Membranes. *Proc. AWWA/AMTA Membrane Technology Conference & Exposition (MTC22)*, Las Vegas, NV, United States, Feb. 2022.

## CONFERENCES / SEMINARS

**Invited Presentation**

1. Wu, J., Nov. 2025. Engineering the Next-Generation of Membrane Materials Needed to Achieve Global Water Sustainability Goals, American Institute of Chemical Engineers (AIChE) 2025 Annual Meeting, Boston, MA, United States.
2. Wu, J., Nov. 2024. Polyamide Reverse Osmosis Membrane Compaction and Relaxation: Mechanisms and Implications for Desalination Performance. International Water Conference, Las Vegas, NV, United States.
3. Wu, J., Jul. 2024. Current opportunities and challenges in membrane-based brine management. Department of Civil and Environmental Engineering, Stanford University, CA, United States
4. Wu, J., Apr. 2024. Current opportunities and challenges in membrane-based brine management. Civil and Environmental Engineering Seminar, UCLA, Los Angeles, CA, United States
5. Wu, J., Feb. 2023. Ultra-high pressure RO membranes with superb compaction resistance. Department of Chemical & Biomolecular Engineering, University of Connecticut, CT, United States
6. Wu, J., Nov. 2022. UHPRO Membrane and Module Design & Optimization: Understanding and Improving RO Membrane Compaction Resistance. National Alliance for Water Innovation.
7. Wu, J., Oct. 2022. Ultrahigh Pressure Reverse Osmosis Membranes for the Lowest Cost and Energy Approach to Achieve Minimum Liquid Discharge. Civil and Environmental Engineering Seminar, UCLA, Los Angeles, CA, United States.
8. Wu, J., Nov. 2023. Challenges and opportunities in ultra-high pressure reverse osmosis operation. International Water Conference, San Antonio, TX, United States.
9. Wu, J., Mar. 2022. Ultrahigh Pressure Reverse Osmosis Membranes for the Lowest Cost and Energy Approach to Achieve Minimum Liquid Discharge. 17th IWA Leading Edge Conference on Water and Wastewater Technologies, Reno NV, United States.

**Oral Presentation**

10. Wu, J., Nov. 2025. Engineering Interfacial Layer for Enhanced Desalination Performance in Thin Film Composite Membranes, 7th International Conference on Desalination Science and Technology 2025 (DESAL 2025), Clearwater, FL, United States. (**Young Researcher Best Oral Presentation**)
11. Wu, J., Nov. 2025. Resilient High-Temperature Reverse Osmosis Desalination Membranes, 7th International Conference on Desalination Science and Technology 2025 (DESAL 2025), Clearwater, FL, United States.
12. Wu, J., May. 2025. Elucidating Compaction Mechanisms in Thin-Film Composite Membranes. NAMS (North American Membrane Society) 2025 Conference, Nashville, TN, United States.
13. Wu, J., May 2024. Compaction-resistant Thin Film Crosslinked Composite (TFX) Ultra-high Pressure Reverse Osmosis. NAMS (North American Membrane Society) 2024 Conference, Santa Fe, NM, United States.
14. Wu, J., Mar. 2024. Thin Film Crosslinked Composite Ultra-high Pressure Reverse Osmosis Preparation. AWWA/AMTA

Membrane Technology Conference & Exposition (MTC24), West Palm Beach, FL, United States.

15. Wu, J., May 2023. Challenges and opportunities in ultra-high pressure reverse osmosis operation. NAMS (North American Membrane Society) 2023 Conference, Tuscaloosa, AL, United States.
16. Wu, J., Apr. 2023. Challenges and opportunities in ultra-high pressure reverse osmosis operation. American Filtration & Separations Society FiltCon 2023, Louisville, KY, United States.
17. Wu, J., Oct. 2022. UHPRO Membrane and Module Design & Optimization: Innovations in Membranes. National Alliance for Water Innovation.
18. Wu, J., Feb. 2022. Sustainable Desalination via UHPRO membranes. AWWA/AMTA Membrane Technology Conference & Exposition (MTC22), Las Vegas, NV, United States.
19. Wu, J., Sept. 2021. RO Membrane Compaction and Embossing at High and Ultra-High Pressure. NAMS (North American Membrane Society) 2021 Conference, Denver, CO, United States.

**Poster Presentation**

20. Wang, X., Wu, J., Elimelech, M., Nov. 2025. Characterizing Depth-Dependent Crosslinking and Its Influence on Water and Solute Transport in Polyamide Membranes, AIChE 2025 Annual Meeting, Boston, MA, United States.
21. Wu, J., Jun. 2023. Challenges and opportunities in ultra-high pressure reverse osmosis operation. 2023 AEESP Research and Education Conference, Boston, MA, United States.
22. Wu, J., May 2023. Challenges and opportunities in ultra-high pressure reverse osmosis operation. Borchardt Conference, Ann Arbor, MI, United States.
23. Wu, J., Mar. 2023. Ultra-high pressure RO membranes with superb compaction resistance. National Alliance for Water Innovation.
24. Wu, J., Jul. 2022. Reverse Osmosis Membrane Compaction and Embossing at Ultra-High Pressure Operation, Membranes: Materials and Processes. Gordon Research Conference, Colby-Sawyer College in New Hampshire, United States.
25. Wu, J., Aug. 2020. State of the Art Review of High Recovery Reverse Osmosis, A section of the book: Sustainable Desalination and Water Reuse. ACS Fall 2020 Virtual Meeting & Expo, United States.

## TEACHING EXPERIENCE

**Guest Lecturer**

***Rice University*** Mar. 2026 – present

- *CEVE 564*: Membrane Science and Technology (10 students)

***University of California, Los Angeles*** Mar. 2020 – Dec. 2023

- *CE&E 155*: Unit Operations and Processes for Water and Wastewater Treatment (32 students)
- *CE&E 258:* Membrane Separations in Aquatic Systems (25 students)

**Graduate Student Mentoring** Jun. 2024 – present

***Yale University***

- Kevin Pataroque, Ph.D. candidate | Chemical & Environmental Engineering | NSF Graduate Research Fellowship
  - Project: Salt and Water Transport through Polyamide Reverse Osmosis Membranes (resulted 2 publications)
- Martina del Cerro, Ph.D. candidate | Chemical & Environmental Engineering | AMTA Ian C. Watson Award
  - Project: Low Salt Rejection Reverse Osmosis Membranes for Brine Management (3 publications pending)

***University of California, Los Angeles***

- Xinyi Wang, Ph.D. | Civil & Environmental Engineering | NWRI Fellowship
  - Project: Simple and Low-Cost Electroactive Membranes for Ammonia Recovery (resulted 2 publications)
- Mckenzie Lynn Fowler, M.S. | Civil & Environmental Engineering
  - Project: The Design and Testing of a Wireless Sensor Network for Real-Time Point of Use Water Quality Monitoring

***Rice University***

- Hao Zhang, Ph.D. candidate | Civil & Environmental Engineering | Tongji Gao-Tingyao Scholarship
  - Project: High Performance Nanofiltration Development (2 publications pending)
- Fiona Chen, Ph.D. student | Chemical & Biomolecular Engineering
  - Project: Covalent Organic Frameworks for Lithium Recovery (2 publications pending)
- Erica Bertozzi, Ph.D. student | Civil & Environmental Engineering
  - Project: Photocatalytic Membranes for The Removal of Emerging Contaminants
- Jacob Goodman, Ph.D. student | Civil & Environmental Engineering
  - Project: Electrochemical Ion Separation via Solid State Electrolytes (2 publications pending)

**Undergraduate Student Mentoring** June. 2020 – present

***University of California, Los Angeles***

- Jason Le | Chemical Engineering (now in UC Berkeley Law) | Dean's Honors List | Tau Beta Pi Honors Society
  - Project: Thin Film Crosslinked Composite Ultra-high Pressure Reverse Osmosis (resulted 3 publications)
- Kay Au | Chemical Engineering (now in CDM Smith) | Rose Hills Foundation Scholarship | Katehi-Tseregounis Scholarship in Chemical Engineering.
  - Project: Reverse Osmosis Composite Membrane Compaction and Performance (resulted 3 publications)
- Tyler Toma | Chemical Engineering (now in Yorke Engineering) | Dean's Honors List
  - Project: Embossing-free permeate carrier for ultrahigh pressure reverse osmosis (resulted 3 publications)
- Kevin Guo | Chemical Engineering (now in Nitto Hydraunatics) | Dean's Honors List
  - Project: Polyamide Membrane Compaction and Relaxation (resulted 3 publications)
- Hope Galarneau | Molecular, Cell, and Developmental Biology | Dean's Honors List | Magna Cum Laude
  - Project: Bruins Fighting Pediatric Cancer
- Katie Soares | Chemical Engineering | Dean's Honors List | Cum Laude
  - Project: Resilient High-temperature Reverse Osmosis Desalination Membranes (resulted 2 publications)
- Rachael Tang | Chemical Engineering | Dean's Honors List
  - Project: Non-destructive *In-operando* Imaging of Composite Membranes with AI-Segmentation (resulted 2 publications)
- Joseph Manio | Chemical Engineering | Dean's Honors List
  - Project: Ultrahigh Pressure Reverse Osmosis Membranes (resulted 1 publication)
- Draco Tong | Electrical and Computer Engineer (now in Meta)
  - Project: Smart Sensors for Point-of-Use Drinking Water Treatment (resulted 1 publication)
- Zach Finkelstein | Computer Science & Engineering (now in Amazon)
  - Project: Smart Sensors for Point-of-Use Drinking Water Treatment (resulted 1 publication)
- Miao Cao | Civil & Environmental Engineering (now in Tongji University)
  - Project: Critical Review of Point-of-Use Drinking Water Treatment in the United States (resulted 1 publication)

***Rice University***

- Xinlin Wang | Chemical Engineering
  - Project: Covalent Organic Frameworks (COFs) for resource recovery (3 publications pending)
- Siena Yiin | Civil & Environmental Engineering
  - Project: Low Salt Rejection Reverse Osmosis Membranes for Brine Management (3 publications pending)
- Alessandro Directo | Mechanical Engineering
  - Project: Low Salt Rejection Reverse Osmosis Membranes for Brine Management (3 publications pending)
- Brett Barron | Civil & Environmental Engineering
  - Project: Zwitterionic Coating for Fouling and Chlorine Resistant Membrane (3 publications pending)

## PROFESSIONAL EXPERIENCE

**Early Career Editorial Board Member** Jun. 2024 – present

*Desalination*

**Editorial Board Member** Mar. 2024 – present

*npj Clean Water*

**Journal Article Reviewer** Mar. 2019 – present

*Science Advances, Environmental Science & Technology, Water Research, Desalination, npj Clean Water, ES&T Water, Separation and Purification Technology, Desalination and Water Treatment, ACS Omega, Water Resources and Industry, Separation & Purification Reviews, Polymers, Membranes, Results in Engineering, Journal of Environmental Chemical Engineering, Computers and Chemical Engineering, Chemical Engineering Science*

**Undergraduate Student Scholarship Application Reviewer** Jun. 2022 – Dec. 2024

*University of California, Los Angeles*

- Reviewed and assessed undergraduate scholarship and financial aid applications.
- Provided constructive guidance and feedback to applicants to strengthen their submissions.

**Project Assistant Intern** Jun. 2015 - Aug. 2015

*Bureau of Environmental Protection, China*

- Experimentally calibrated COD instruments using potassium dichromate method.
- Calibrated $BOD_5$ instruments using a physicochemical method, measuring $O_2$ concentration.