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Education and Professional Career

2011 B.S. (w/ highest honor), Hydraulic Engineering, Tsinghua University, Beijing, China
2013 M.A., Civil and Environmental Engineering, Princeton University, Princeton, USA
2016 Ph.D., Civil and Environmental Engineering, Princeton University, Princeton, USA
2016-2018 Postdoc, Energy Science & Engineering, Stanford University, Stanford, USA
2018-2024 Assistant Professor, Hydrology and Atmospheric Sciences, University of Arizona
2019-present Affiliated Faculty, Applied Mathematics, University of Arizona
2024-present Associate Professor, Hydrology and Atmospheric Sciences, University of Arizona

Commitment, Appointments and Scientific Volunteer Jobs

2021-present Chair, Membership Committee, International Society for Porous Media (InterPore)
2021-2023 Member, Program Committee, InterPore Annual Meeting
2018, 2020-26 Organizer of minisymposia, InterPore Annual Meetings
2025-present Chair, Groundwater Technical Committee, AGU Hydrology Section
2022-2024 Deputy Chair, Groundwater Technical Committee, AGU Hydrology Section
2024 Chair, 25th Computational Methods in Water Resources (CMWR) Conference (230+ participants from 26 countries)
2025-present Member, CMWR Conference Committee
2026-2028 Vice Chair, 2028 Gordon Research Conference on Flow and Transport in Permeable Media
2025-present Editor, Hydrology and Earth System Sciences
2024-present Associate Editor, Water Resources Research
2026-present Associate Editor, Advances in Water Resources
2024-2026 Humboldt Research Fellow, University of Stuttgart, Germany
2026-2030 Mercator Fellow, DFG Collaborative Research Center 1313, University of Stuttgart
2020-present Member, Unsaturated Zone Technical Committee, AGU Hydrology Section
2020-2022 Member, Groundwater Technical Committee, AGU Hydrology Section
2016-present Member, InterPore
2013-present Member, American Geophysical Union (AGU)
2015-present Member, Society for Industrial and Applied Mathematics (SIAM)
2019-present Member, Geological Society of America (GSA)
2022-present Member, European Geosciences Union (EGU)

Professional Awards, Offers and Recognitions

2027 Henry Darcy Distinguished Lecturer, National Ground Water Association
2026 Hydrologic Sciences Early Career Award, American Geophysical Union
2026 Distinguished Scholar Award, University of Arizona
2026 Most Outstanding Instructor in the Broad Earth Sciences, Dept. of Hydrology and Atmospheric Sciences, University of Arizona
2026 Galileo Circle Curie Award, College of Science, University of Arizona
2024 Humboldt Research Fellowship for Experienced Researchers, Humboldt Foundation
2024 Best Question Award, Collaborative Research Center 1313 Annual Status Symposium, University of Stuttgart
2023 National Science Foundation CAREER Award
2021 Doctoral New Investigator Award, ACS Petroleum Research Fund
2018 AGU Editors' Citation for Excellence in Refereeing, Water Resources Research

2015	Gordon Wu Prize for Excellence, Princeton University
2015-2016	Princeton Teagle Teaching Seminar Scholarship, Princeton University
2014-2016	Princeton Energy and Climate Scholar, Princeton University
2011	Outstanding Graduate of Class 2011, Tsinghua University
2011	National Outstanding Graduate in Hydraulic Engineering, Ministry of Education of China
2011	Outstanding Graduate of Beijing City, Beijing Municipal Education Commission
2011	Best Bachelor's Thesis, Tsinghua University

Most important Publications (maximum 10)

(Peer reviewed journal articles / books / patents)

- [1] Zheng, T., **Guo, B.**, Chang, Q., Sun, Q., Chen, X., Zheng, X., Wu, J., Zheng, Z., Gao, S., Zheng, C., Liu, J., Wang, D., Liu, T., Liu, X., Chen, G., Xu, X., Zhang, B., Zhang, L., Wu, Y., Kolditz, O., Luo, J., and Guadagnini, A. (2026). Paleo-salt water dominates coastal aquifer salinization: A continental-scale study in China. *Science Advances*, 12(21), eady2322.
 - [2] Chen, Z., **Guo, B.**, Kelm, M., Schollenberger, T., and Helmig, R. (2026). Quasi-static pore-network modeling for evaporation-driven salt transport and precipitation in porous media. *Water Resources Research*, 62, e2026WR043446.
 - [3] Baluja, R., **Guo, B.**, Howden, W., Langer, A., and Lemoine, D. (2025). PFAS-contaminated drinking water harms infants. *Proceedings of the National Academy of Sciences*, 122(50), e2509801122.
 - [4] Chen, S. and **Guo, B.** (2025). Semi-analytical solutions for nonequilibrium transport and transformation of PFAS and other solutes in heterogeneous vadose zones with structured porous media. *Advances in Water Resources*, 206, 105099
 - [5] **Guo, B.** and Brusseau, M.L. (2024). Challenges and opportunities for porous media research to address PFAS groundwater contamination. *InterPore Journal*, 1(2), ipj240824-2. **Invited commentary.**
 - [6] Zeng, J., Brusseau, M.L. and **Guo, B.** (2024). Modeling PFAS subsurface transport in the presence of groundwater table fluctuations: The impact on source-zone leaching and exploration of model simplifications. *Water Resources Research*, 60(11), e2024WR037707.
 - [7] Zhang, W. and **Guo, B.** (2024). Anomalous adsorption of PFAS at the thin-water-film air-water interface in water-unsaturated porous media. *Water Resources Research*, 60, e2023WR035775.
 - [8] **Guo, B.**, Saleem, H., and Brusseau, M.L. (2023). Predicting interfacial tension and adsorption at fluid-fluid interfaces for mixtures of PFAS and/or hydrocarbon surfactants. *Environmental Science & Technology*, 57, 8044-8052.
 - [9] Chen, S. and **Guo, B.** (2023). Pore-scale modeling of PFAS transport in water-unsaturated porous media: air–water interfacial adsorption and mass-transfer processes in thin water films. *Water Resources Research*, 59(8), e2023WR034664.
 - [10] **Guo, B.**, Zeng, J., and Brusseau, M.L. (2020). A mathematical model for the release, transport, and retention of PFAS in the vadose zone. *Water Resources Research*, 56, e2019WR026667.
- A top-cited article in WRR from 2020-2021.**