

NANO KOREA 2020

July 1~3, KINTEX, Korea

Baoxia Mi

Associate Professor, University of California, Berkeley

Address: 623 Davis Hall, University of California, Berkeley, CA 94556, USA

Telephone: 1-510-664-7448

Fax:

E-mail: mib@berkeley.edu

Nationality: USA

Web: <http://www.ce.berkeley.edu/people/faculty/mi>

EDUCATION

University of Illinois at Urbana-Champaign, USA	Ph.D	Environmental Engineering	2006
Tianjin University, China	MS	Environmental Engineering	2001
Tianjin University, China	BS	Environmental Engineering	1998

PROFESSIONAL ACTIVITIES

- ASSOCIATE PROFESSOR, University of California, Berkeley (UCB) (JUL 2018 - Present)
- ASSISTANT PROFESSOR, University of California, Berkeley (UCB) (JUL 2015 – JUN 2018)
- ASSISTANT PROFESSOR, University of Maryland, College Park (UMD) (JUL 2011 - JUN 2015)
- ASSISTANT PROFESSOR, The George Washington University (GWU), Washington, DC (JAN 2009 - JUN 2011)
- POSTDOCTORAL RESEARCH ASSOCIATE, Yale University, New Haven, CT (AUG 2006 – DEC 2008)

AWARD AND HONORS

- Young Investigator Award, Chinese-American Professors in Environmental Engineering and Science, 2017
- Hellman Fellow (featured), Hellman Fellows Fund through the University of California, Berkeley, 2017
- Fellowship Award to PhD student advisee, North American Membrane Society, 2017
- Invited Speaker, National Academy of Engineering's (NAE) annual US Frontiers of Engineering (USFOE) Symposium, 2016
- National Science Foundation CAREER Award, 2014
- Fellowship Award to PhD student advisee, North American Membrane Society, 2014
- Environmental Protection Agency People, Prosperity and the Planet Award, 2013
- Most Cited Author Award, Journal of Membrane Science, 2011
- Sustainability Research Award, The George Washington University, 2011

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MAIN SCIENTIFIC PUBLICATION

- Liu, Y.; Zheng, S.; Gu, P.; Ng, A. J.; Wang, M.; Wei, Y.; Urban, J. J.; Mi, B., (2020) "Graphene-Polyelectrolyte Multilayer Membranes with Tunable Structure and Internal Charge." *Carbon*, 160, 219-227
- Zheng, S.; Tu, Q.; Wang, M.; Urban, J. J.; Mi, B., (2020) Correlating Interlayer Spacing and Separation Capability of Graphene Oxide Membranes in Organic Solvents. *ACS Nano*, 14 (5), 6013-6023.
- Mi, B., Finnerty, C.; Conway, K., (2019) "Potentials of artificial tree for solar desalination." *Current Opinion in Chemical Engineering*, 25, 18-25.
- Mi, B., (2019) "Scaling up nanoporous graphene membranes." *Science*, Vol. 364, Issue 6445, pp. 1033-1034.
- Wang, Z.; Sim, A.; Urban, J. J.; Mi, B., (2018) "Removal and recovery of heavy metal ions by two-dimensional mos₂ nanosheets: Performance and mechanisms." *Environmental Science & Technology*, 52(17), pp. 9741-9748
- Wang, Z., Tu, Q., Zheng, S., Urban, J., Li, S., and Mi, B. (2017) "Understanding the aqueous stability and filtration capability of MoS₂ membranes." *Nano Letters*, 17(12), pp. 7289-7298
- Finnerty, C., Zhang, L., Sedlak, D.L., Nelson, K.L., and Mi, B. (2017). "Synthetic graphene oxide leaf for solar desalination with zero liquid discharge." *Environmental Science and Technology*, 51(20), pp. 11701-11709
- Jin, L., Wang, Z., Zheng, S., and Mi, B. (2018). "Polyamide-crosslinked graphene oxide membrane for forward osmosis." *Journal of Membrane Science*, 545, pp. 11-18
- Wang, Z., and Mi, B. (2017). "Environmental applications of 2D molybdenum disulfide (MoS₂) nanosheets." *Environmental Science and Technology*, 51, pp. 8229-8244
- Zheng, S., Tu, Q., Urban, J., Li, S., and Mi, B. (2017). "Swelling of graphene oxide membranes in aqueous solution: Characterization of interlayer spacing and insight into water transport mechanisms." *ACS Nano*, 11(6), pp. 6440-6450
- Hu, M., and Mi, B. (2014). "Layer-by-layer assembly of graphene oxide membranes via electrostatic interaction." *Journal of Membrane Science*, 469, pp. 80-87
- Mi, B. (2014). "Graphene oxide membranes for ionic and molecular sieving." *Science*, 343(6172), pp.740-742
- Hu, M., and Mi, B. (2013). "Enabling graphene oxide nanosheets as water separation membranes." *Environmental Science & Technology*, 47(8), pp. 3715-3723
- Mi, B., Elimelech, M. (2008). "Chemical and physical aspects of organic fouling of forward osmosis membranes." *Journal of Membrane Science*, 320, pp. 292-302

RESEARCH INTERESTS

Dr. Baoxia Mi directs the research and educational activities of the Membrane Innovation Laboratory, studying physicochemical processes with emphases on advanced membrane processes and nanotechnology to address some of the most challenging issues in sustainable water supply (desalination, drinking water purification, wastewater reuse), renewable energy production, and public health protection.