

Mengyan Li, PhD

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Professional Preparation

Rice University	Environmental Engineering	Ph.D.	2013
Rice University	Environmental Engineering	M.S.	2010
Nankai University	Environmental Engineering	B.E. (Hons)	2008

Appointments

2015-present Assistant Professor, New Jersey Institute of Technology, Newark, NJ
2014-2015 Postdoctoral Research Associate, Rice University, Houston, TX

Honors and Awards

- NSF CAREER Award (2019)
- ISPTS Young Scientist Award (2019)
- NJIT CSLA Rising Star Research Award (2019)
- CAPEES Founding President Best Paper Award (2018)
- Honor Award for the Excellence in Environmental Engineering and Science™ Competition in the category of University Research by AAEEES (2014)
- Student Paper Winner for the 9th International Conference on Remediation of Chlorinated and Recalcitrant Compounds (2014)
- The 4th and 5th Annual Geosyntec™ Student Paper Competition, 2nd place (2013, 2014)
- Outstanding Undergraduate Thesis of Nankai University (2008)
- National Li-Zhi Fellowship for College Students, China (2007)

Patents

1. **Li, M.** and D. Deng. "Bioremediation of 1,4-dioxane and aliphatic chlorinated hydrocarbons using propanotrophic bacteria." US Patent US Patent 20190224731.
2. **Li, M.**, J. Mathieu, and P. J. J. Alvarez. "Monitoring of 1,4-dioxane biodegradation in various environments." US Patent 20150184232.
3. Zhu, L., Z. Zhang, C. Chang, and **M. Li**. "In-situ covering method for heavy metal in nano-agustite immobilized sediment." PRC Patent 200810153104.

Selected Publications

(* indicates Li as the corresponding author; # indicates members of Li's lab at NJIT)

1. Li, F. #, D. Deng#, and **M. Li*** (2019). "Distinct catalytic behaviors between two 1,4-dioxane degrading monooxygenases: kinetics, inhibition, and substrate range." Environmental Science and Technology (accepted)
2. Deng, D.#, F. Li#, L. Ye, and **M. Li*** (2019). "Complete genome sequence of *Azoarcus* sp. DD4, a gram-negative propanotroph that degrades 1,4-dioxane and 1,1-dichloroethylene." Microbiology Resource Announcements 8 (33), 1–2.

3. Deng, D.[#], F. Li[#], C. Wu[#], and **M. Li*** (2018). "Synchronic biotransformation of 1,4-dioxane and 1,1-dichloroethylene by a gram-negative propanotroph *Azoarcus* sp. DD4." Environmental Science and Technology Letters 5 (8), 526–532. **(Featured by C&EN)**
4. Deng, D.[#], F. Li[#], and **M. Li*** (2017). "A novel propane monooxygenase initiating degradation of 1,4-dioxane by *Mycobacterium dioxanotrophicus* PH-06." Environmental Science and Technology Letters 5 (2), 86–91. **(ACS Editors' Choice) (Cover Article)**
5. **Li, M.***, Y. Yang, Y. He, J. Mathieu, C. Yu, Q. Li, and P. J. J. Alvarez (2018). "Detection and cell sorting of *Pseudonocardia* species by fluorescence *in situ* hybridization and flow cytometry using 16S rRNA-targeted oligonucleotide probes." Applied Microbiology and Biotechnology 102 (7): 3375–3386.
6. He, Y., K. Wei, K. Si, J. Mathieu, **M. Li***, and P. J. J. Alvarez (2017). "Whole genome sequence of 1,4-dioxane degrading bacterium *Mycobacterium dioxanotrophicus* PH-06." Genome Announcements 5: e00625-17.
7. **Li, M.***, Y. Liu, Y. He, J. Hatton, W. DiGiuseppi, and P. J. J. Alvarez (2017). "Hindrance of 1,4-dioxane biodegradation in microcosms biostimulated with inducing or non-inducing auxiliary substrates." Water Research 112 (2017): 217–225.
8. Zhang, S., S. Courtois, S. Gitungo, R. F. Raczko, J. E. Dyksene, **M. Li***, and L. Axe (2018). "Microbial community analysis in biologically active filters exhibiting efficient removal of emerging water contaminants and impact of operational conditions." Science of the Total Environment 640-641 (2018), 1455–1464.
9. **Li, M.**, J. Mathieu, Y. Liu, E. T. Van Orden, Y. Yang, S. Fiorenza, and P. J. J. Alvarez (2014). "The abundance of tetrahydrofuran/dioxane monooxygenase genes (*thmA/dxmA*) and 1,4-dioxane degradation activity are significantly correlated at various impacted aquifers." Environmental Science and Technology Letters. 1 (1): 122–127.
10. **Li, M.**, J. Mathieu, Y. Yang, S. Fiorenza, Y. Deng, Z. He, J. Zhou and P. J. J. Alvarez (2013). "Widespread distribution of soluble di-iron monooxygenase (SDIMO) genes in Arctic groundwater impacted by 1,4-dioxane." Environmental Science and Technology 47(17): 9950–9958.

Synergistic Activities

1. Proposal Reviewer for NSF (Environmental Engineering, Environmental Chemistry, Biological and Environmental Interactions of Nanoscale Materials, and Geobiology and Low-Temperature Geochemistry), NIH (Superfund Hazardous Substance Research and Training, Microbial Diagnostics and Food Safety, Sterilization/Disinfection, and Bioremediation), and USGS WRI
2. Journal Reviewer for Environmental Science and Technology, Environmental Science and Technology Letters, Water Research, Green Chemistry, Biodegradation, International Biodeterioration and Biodegradation, Journal of Hazardous Materials, Water Environment Research, Water Science and Technology *et al.*
3. Organizer and Session Chair at ACS national meeting and ACS MARM
4. Member of Academic and Industrial Organizations: American Chemical Society, American Society of Microbiology, Association of Environmental Engineering and Science Professors, and International Society for Microbial Ecology
5. Board Member at the Passaic River Community Advisory Group (CAG)
6. Co-editor for Frontiers in Microbiology on the *Research Topic: New insights into the biodegradation of organic contaminants in subsurface ecosystems: approaches and achievements of the multiomics era*