
CONTACT INFORMATION	Department of Civil & Environmental Engineering The George Washington University Science and Engineering Hall 800 22nd St NW Washington, DC, 20052	<i>E-mail:</i> lmq123@gwu.edu <i>Tel:</i> +1 (571)274-9402 <i>Mengqiaoli.github.io</i> <i>Google Scholar Profile</i> <i>ORCID:</i> 0000-0002-0567-9716
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EDUCATION	The George Washington University Department of Civil and Environmental Engineering Ph.D. in Environmental Engineering Research Focus: Transformation of engineered nanomaterials in aquatic systems and rational design of novel catalysts in nanoscales	01/2019 – present Professor Danmeng Shuai
	University of Science and Technology of China Hefei National Laboratory for Physical Sciences at the Microscale M.Sc. in Chemistry Thesis: Designing TiO ₂ -supported PdPt alloys for photocatalytic water-donating selective alkyne semihydrogenation	09/2015 – 11/2018 Professor Yujie Xiong
	University of Science and Technology of China School of the Gifted Young B.Sc. in Material Physics Thesis : Photocatalytic properties of ultrathin two-dimensional nanosheets of GaSe _{1 - x} S _x	09/2011 – 06/2015 Professor Yi Xie
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PUBLICATIONS	<ul style="list-style-type: none">• M. Li, D. P. Durkin, G. Waller, Y. Yu, Y. Men, T. Ye, H. Chen*, D. Shuai*, Reactive chlorine species-induced transformation of graphitic carbon nitride: "weak" oxidants are the main culprits. In preparation• M. Li, H. Shen, M. Zhang, T. Diba, J. M. Zara, N. Altan-Bonnet, D. Shuai*, Toxicity evaluation of fresh and aged graphitic carbon nitride: Transformation processes make a difference. In preparation• M. Li[#], Q. Zheng[#], D. P. Durkin, H. Chen*, D. Shuai*, Environmental application of chlorine-doped graphitic carbon nitride: continuous solar-driven photocatalytic production of hydrogen peroxide. <i>J. Hazard. Mater.</i>, 2022, 436: 129251• M. Li, D. Liu, X. Chen, Z. Yin, H. Shen, A. Aiello, K. R. McKenzie Jr, N. Jiang, X. Li, M. J. Wagner, D. P. Durkin*, H. Chen*, D. Shuai*, Radical-driven decomposition of graphitic carbon nitride nanosheets: light exposure matters. <i>Environ. Sci. Technol.</i>, 2021, 55: 12414.• M. Li, H. Huang, J. Low, C. Gao, R. Long*, Y. Xiong*, Recent progress on electrocatalyst and photocatalyst design for nitrogen reduction. <i>Small Methods</i>, 2019, 3: 1800388.• M. Li, N. Zhang, R. Long*, W. Ye, C. Wang, Y. Xiong*, PdPt alloy nanocatalysts supported on TiO₂: maneuvering metal-Hydrogen interactions for light-driven and water-donating selective alkyne semihydrogenation. <i>Small</i>, 2017, 13: 1604173.• M. Zhang, S. Ghosh, M. Li, N. Altan-Bonnet*, D. Shuai*, Vesicle-cloaked rotavirus clusters are environmentally persistent and resistant to free chlorine disinfection. <i>Environ. Sci. Technol.</i>, 2022• H. Shen, A. J. Gulbrandson, S. Park, M. Li, D. Shuai, P. C. Trulove, D. P. Durkin*, Antimicrobial biocomposites fiber-welded with lignocellulose containing silver nanoparticles. <i>Macromol. Mater. Eng.</i>, 2022, 307: 2100872.• C. Zhang, Y. Li*, M. Li, D. Shuai, X. Zhou, X. Xiong, C. Wang*, Q. Hu, Continuous photocatalysis <i>via</i> photo-charging and dark-discharging for sustainable environmental remediation: Performance, mechanism, and influencing factors. <i>J. Hazard. Mater.</i>, 2021, 420: 126607.• Z. Zhou, M. Li, C. Kuai, Y. Zhang, V. F. Smith, F. Lin, A. Aiello, D. P. Durkin*, H. Chen*, D. Shuai*, Fe-based single-atom catalysis for oxidizing contaminants of emerging concern by activating peroxides. <i>J. Hazard. Mater.</i>, 2021, 418: 126294.	

- Y. Feng, L. Tao, Y. He, Q. Jin, C. Kuai, Y. Zheng, **M. Li**, Q. Hou, Z. Zheng, F. Lin*, and H. Huang*, Chemical-enzymatic fractionation to unlock the potential of biomass-derived carbon materials for sodium ion batteries. *J. Mater. Chem. A*, **2019**, 7: 26954.
- N. Zhang, X. Li, Y. Liu, R. Long, **M. Li**, S. Chen, Z. Qi, C. Wang, L. Song, J. Jiang, Y. Xiong*, Defective tungsten oxide hydrate nanosheets for boosting aerobic coupling of amines: synergistic catalysis by oxygen vacancies and Brønsted acid sites. *Small*, **2017**, 13: 1701354.

* Corresponding authors

Equal contribution

PATENT

- Y. Xiong **M. Li**, N. Zhang, R. Long, Methods of light-driven and water-donating selective alkyne semihydrogenation. CN 106905113 B *Small*, **2017**, 13: 1604173.

HONORS AND AWARDS

- AEESP 2022 Travel Grant 2022
- C. Ellen Gontter Environmental Chemistry Award 2021
- SNO (Sustainable Nanotechnology Organization) Student Award 2021
- ACS-CSW (Chemical Society of Washington) Student Travel Award 2021
- Graduate Research Assistantship 2019 – 2021
- Stipend Fellowship 2019 – 2021
- National Scholarship for Graduate Students (top 5%) 2017
- First-class Academic Scholarship 2015 – 2017
- HFNL Fellowship 2015 – 2017
- 2011 Excellent New Student Award 2011

CONFERENCE PRESENTATIONS

- 2021 SNO (Sustainable Nanotechnology Organization) Conference **M. Li**, D. Liu, X. Chen, Z. Yin, H. Shen, A. Aiello, K. R. McKenzie Jr, N. Jiang, X. Li, M. J. Wagner, D. P. Durkin, H. Chen, D. Shuai, *Insight into the role of light exposure in radical-driven decomposition of graphitic carbon nitride* **Poster**
- 2021 ACS Fall C. Ellen Gontter Graduate Student Award Symposium (**Invited**), **M. Li**, D. Liu, X. Chen, Z. Yin, H. Shen, A. Aiello, K. R. McKenzie Jr, N. Jiang, X. Li, M. J. Wagner, D. P. Durkin, H. Chen, D. Shuai, *Radical-driven decomposition of graphitic carbon nitride: light exposure matters* **Oral**
- 95th ACS Colloid and Surface Science Symposium, **M. Li**, D. Shuai, *Dilemma of activity and stability: Intrinsic photoreactivity promotes 2D nanomaterial decomposition under radical attack* **Oral**
- 2021 ACS Spring, **M. Li**, D. Liu, X. Chen, Z. Yin, H. Shen, A. Aiello, K. R. McKenzie Jr, N. Jiang, X. Li, M. J. Wagner, D. P. Durkin, H. Chen, D. Shuai, *Radical-driven decomposition of graphitic carbon nitride: light exposure matters* **Oral**
- 2021 ACS Spring, Z. Zhou, **M. Li**, C. Kuai, Y. Zhang, V. F. Smith, F. Lin, A. Aiello, D. P. Durkin, H. Chen, D. Shuai, *Single-Atom Catalysis for Oxidizing Contaminants of Emerging Concern via High-Valent Fe Species* **Poster**
- 2018 CCS in Hangzhou, **M. Li**, Y. Xiong, *PdPt alloy nanocatalysts supported on TiO₂: maneuvering metal-hydrogen interactions for light-driven and water-donating selective alkyne semihydrogenation* **Poster**

RESEARCH EXPERIENCE	<p>GRADUATE RESEARCH ASSISTANT, THE GEORGE WASHINGTON UNIVERSITY Supervisor: Professor Danmeng Shuai 01/2019 – present</p> <ul style="list-style-type: none"> ● Fate and transformation of graphitic carbon nitride nanosheets in aquatic environments ● Toxicity study of fresh and aged graphitic carbon nitride nanosheets ● Applications of single-atom catalysts in environmental remediation ● Fabrication of bioactive membranes for indoor air purification <p>GRADUATE RESEARCH ASSISTANT, UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA Supervisor: Professor Yujie Xiong 09/2015 – 11/2018</p> <ul style="list-style-type: none"> ● Photocatalytic CO₂ conversion by controlled hierarchical nanostructures ● Photocatalytic hydrogen transfer from water for selective alkyne semihydrogenation with the TiO₂-Pd_xPt_{1-x} hybrid structures ● Catalytic properties of defective WO₃·H₂O nanosheets for aerobic couplings reactions <p>UNDERGRADUATE RESEARCH, UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA Supervisor: Professor Yi Xie & Professor Xiaodong Zhang 09/2013 – 06/2015</p> <ul style="list-style-type: none"> ● Photocatalytic water splitting through ultrathin two-dimensional nanosheets of GaSe_{1-x}S_x ● National training program of innovation and entrepreneurship for undergraduates: photothermal properties of ultrathin two-dimensional nanosheets of transition metal chalcogenides <hr/>
TEACHING EXPERIENCE	<ul style="list-style-type: none"> ● Guest Lecturer: Municipal water treatment-sedimentation and filtration 2022 Spring ● Teaching assistant for Environmental Engineering I (CE 3520) 2022 Spring ● Guest Lecturer: Introduction to membrane filtration and membrane reactors 2021 Fall ● Teaching assistant for Principles of Environmental Engineering (CE 6503) 2021 Fall ● Guest Lecturer: Introduction to photocatalysts and associated applications 2021 Spring ● Assisting in Environmental Engineering Laboratory 2021 Spring ● Assisting in Environmental Engineering I: Water Resources and Water Quality (CE 3520) 2020 Spring ● In-home and online tutoring for high school students 2014 – 2018 <hr/>
PROFESSIONAL SERVICE	<p>JOURNAL REVIEWER</p> <ul style="list-style-type: none"> ● Journal of Hazardous Materials ● Journal of Controlled Release ● RSC Advances ● Ecotoxicology and Environmental Safety ● Environmental Nanotechnology, Monitoring & Management ● Materials Letters ● Chinese Chemical Letters ● Chemical Journal of Chinese Universities <hr/>
CHARACTERIZATION SKILLS	<ul style="list-style-type: none"> ● Transmission Electron Microscopy ● Scanning Electron Microscopy ● Confocal Laser Scanning Microscopy