



Profile

Dr. Liu Yongdi, professor and doctoral supervisor, served as the dean of the school of resources and environmental engineering, East China University of Science and Technology (2002-2016), and taught the courses of water pollution control engineering for undergraduates, sustainable development theory and practice for master students and the pollution control engineering monograph for doctoral students. Presided over the completion of sub-project of the national 863 program key project, the project of the national natural science foundation of China, the priority funding field project of higher education doctoral programs foundation from the Ministry of Education of China, and a number of technology development and engineering application projects of industrial wastewater treatment. Currently undertaking the national natural science foundation of China and other projects. Published more than 200 papers, including 80 SCI papers; applied for 30 invention patents, 15 of which are authorized. Translated and published two monographs. He ever worked at Pennsylvania State University (Nov. 2007 - May 2008) and the University of Hong Kong (Mar. 2003 - Jun. 2003) as visiting scholar. He has won the first prize of technological invention award of China Petroleum and Chemical Industrial Federation (2014), the second prize of technological invention award of Ministry of Education of China (2015), and the second prize of environmental protection science and technology award of Ministry of Environmental Protection (2009). At present, he is also a member of the engineering technical committee of National Engineering Research Center for Organic Pollution Control and Resource of Nanjing University, chairman of the technical committee of Shanghai Engineering Research Center for Heavy Metal Pollution Control and Resource Recovery, vice director of the academic committee of Jiangsu Provincial Key Laboratory of Chemical Pollution Control and Resource Utilization of Nanjing University of Science and Technology. He is also the executive member of Shanghai Society of Environmental Sciences, the executive member of Shanghai Society of Chemistry and Chemical Industry; editorial board member of Chinese Journal of Environmental Engineering, Technology of Water Treatment, Water Purification Technology, Journal of East China University of Science and Technology (Natural Science Edition). In 2016, he was granted "special government allowance" by the State Council.

Research Field

(1) Theoretical research and technology development of toxic, harmful and refractory biodegradable organic wastewater treatment

(2) Theoretical research and technology development of treatment and reuse for municipal sewage and industrial wastewater

(3) Study on the application of environmental microbial technology in industrial organic wastewater treatment

Research results and selected published papers

获得中国石油与化学工业联合会技术发明奖一等奖（2014）、教育部技术发明奖二等奖（2015）、上海市技术发明奖二等奖等奖励（2014）、环保部环境保护科学技术奖二等奖（2009）。

- Juying Lei, Bin Chen, Weijia Lv, Liang Zhou, Lingzhi Wang, Yongdi Liu*, Jinlong Zhang*. Robust Photocatalytic H₂O₂ Production over Inverse Opal g-C₃N₄ with Carbon Vacancy under Visible Light. *ACS Sustainable Chemistry & Engineering*. <https://doi.org/10.1021/acssuschemeng.9b03678>
- Jie Yu, Juying Lei, Lingzhi Wang, Chantal Guillard, Jinlong Zhang*, Yongdi Liu*, Masakazu Anpo. g-C₃N₄ quantum dots-modified mesoporous TiO₂-SiO₂ for enhanced photocatalysis. *Research on Chemical Intermediates*, 2019, 45:4237-4247
- Juying Lei, Bin Chen, Weijia Lv, Liang Zhou, Lingzhi Wang, Yongdi Liu*, Jinlong Zhang*. An inverse opal TiO₂/g-C₃N₄ composite with a heterojunction for enhanced visible light-driven photocatalytic activity. *Dalton Transactions*, 2019, 48(10):3486-3495
- Meng Hou, Wei Li*, Hui Li, Cheng Li, Xiao Wu, Yong-di Liu*. Performance and bacterial characteristics of aerobic granular sludge in response to alternating salinity. *International Biodeterioration & Biodegradation*, 2019, 142: 211-217. ISSN 0964-8305. <https://doi.org/10.1016/j.ibiod.2019.05.007>.
- Xiao Wu, Wei Li, Dong Ou, Cheng Li, Meng Hou, Hui Li*, Yongdi Liu*. Enhanced adsorption of Zn²⁺ by salinity-aided aerobic granular sludge: Performance and binding mechanism. *Journal of Environmental Management*, 2019, 242: 266-271
- Liang Zhou, Juying Lei*, Lingzhi Wang, Yongdi Liu*, Jinlong Zhang*. Highly efficient photo-Fenton degradation of methyl orange facilitated by slow light effect and hierarchical porous structure of Fe₂O₃-SiO₂ photonic crystals. *Applied Catalysis B: Environmental*, 2018, 237: 1160-1167
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- Jie Yu, Juying Lei*, Lingzhi Wang, Jinlong Zhang*, Yongdi Liu*. TiO₂ inverse opal photonic crystals: Synthesis, modification, and applications - A review, *Journal of Alloys and Compounds*, 2018, 769: 740-757
- Dong Ou, Hui Li, Wei Li, Xiao Wu, Yi-qiao Wang, Yong-di Liu*. Salt-tolerance aerobic granular sludge: formation and microbial community characteristics, *Bioresource Technology*, 2018, 249:132-138
- Chan-Juan Qian, Wei Li, Hui Li*, Dong Ou, Yang-Yang Zhu-Ge, Yong-Di Liu*. Responses of genes for the uptake of glycine betaine in *Virgibacillus halodenitrificans* PDB-F2 under NaCl stress, *International Biodeterioration & Biodegradation*, 2018, 132:192-199
- Dong Ou, Wei Li, Hui Li*, Xiao Wu, Cheng Li, Yangyang Zhuge, Yong-di Liu*, Enhancement of the removal and settling performance for aerobic granular sludge under hypersaline stress, *Chemosphere*, 2018, 212:400-407
- Juying Lei, Fenghui Liu, Lingzhi Wang, Yongdi Liu*, Jinlong Zhang*. A binary polymer composite of graphitic carbon nitride and poly(diphenylbutadiyne) with enhanced visible light photocatalytic activity. *RSC Advances*, 2017, 7: 27377-27383.
- Liang Zhou, Lingzhi Wang, Jinlong Zhang, Juying Lei*, Yongdi Liu*. The preparation, and applications of g-C₃N₄/TiO₂ heterojunction catalysts-a review. *Research on Chemical Intermediates*. 2017, 43:2081-2101.
- Hui Li, Yue-feng Qiu, Xiao-li Wang, Jie Yang, Yun-jiang Yu*, Ya-qin Chen, Yong-di Liu*. Biochar supported Ni/Fe bimetallic nanoparticles to remove 1,1,1-trichloroethane under various reaction conditions, *Chemosphere*, 2017, 169:534-541
- Liang Zhou, Lingzhi Wang, Juying Lei*, Yongdi Liu*, Jinlong Zhang. Fabrication of TiO₂/Co-g-C₃N₄ heterojunction catalyst and its photocatalytic performance, *Catalysis Communications*, 2017, 89:125-128 □□□ 3.33□
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- Changzheng Cui, Zhijie Li, Jiangchao Qian, Jie Shi, Ling Huang, Hongzhi Tang*, Xin Chen, Kuangfei Lin, Ping Xu, Yongdi Liu*. Complete genome of *Marteella* sp. AD-3, a moderately halophilic polycyclic aromatic hydrocarbons-degrading bacterium. *Journal of Biotechnology*, 2016, 225: 29-30
- Ling Huang, Haiyang Hu, Hongzhi Tang*, Yongdi Liu, Ping Xu, Jie Shi, Kuangfei Lin, Qishi Luo, Changzheng Cui*. Identification and Characterization of a Novel Gentsitate 1,2-Dioxygenase Gene from a Halophilic *Marteella* Strain. *Scientific Reports*, 2015, 5:14307; DOI: 10.1038/srep14307
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- Zhi-Yan Lu, Xiao-Jue Guo, Li Hui*, Zhong-Zi Huang, Kuang-Fei Lin and Yong-Di Liu*. High-throughput screening for a moderately halophilic phenol-degrading strain and its salt tolerance response. *International Journal of Molecular Sciences*, 2015, 16(6): 11834-11848
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- Juying Lei, Ying Chen, Lingzhi Wang, Yongdi Liu, Jinlong Zhang*. Highly condensed g-C₃N₄-modified TiO₂ catalysts with enhanced photodegradation performance toward acid orange 7. *Journal of Materials Science*, 2015, 50(9):3467-3476
- Juying Lei, Ying Chen, Fan Shen, Lingzhi Wang, Yongdi Liu*, Jinlong Zhang*, Surface modification of TiO₂ with g-C₃N₄ for enhanced UV and visible photocatalytic activity, *Journal of Alloys and Compounds*, 2015, 631:328-334
- Penghua Wang, Juying Lei, Mingyang Xing, Lingzhi Wang, Yongdi Liu*, Jinlong Zhang*, Ammonium acetate and ethylenediamine-assisted synthesis of anatase nanocrystals with {010} facets and enhanced photocatalytic activity, *Journal of Environmental Chemical Engineering*, Available online, 2015, 3(2):961-968
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