Yirong Xu

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Interested Research Area: Computational biology, Environmental Science, Environmental Microbiology

Education Background:

Washington University in St. Louis Aug. 2023 - Now
Computational & Data Sciences

University of Chinese Academy of Sciences Sep. 2020 - Jun. 2023
Master of Science (M. Sc) in Environmental Science

Beijing Forestry University Sep. 2016 - Jun. 2020
Bachelor of Engineering (B. Eng) in Water Supply and Drainage Engineering

Publications:

Journal Articles:

[1] Lin Zhang, Daliang Ning, David Mantilla-Calderon, **Yirong Xu**, Bingdi Liu, Winston Chen, Jinyu Gao, Kerry A Hamilton, Jinyong Liu, Jizhong Zhou, Fangqiong Ling*. Daily sampling reveals household-specific water microbiome signatures and shared antimicrobial resistomes in premise plumbing. *Nature Water*. 2024.

[2] **Yirong Xu**, Bingjun Han, Kang Xiao*, Jinlan Yu, Jianzhong Zheng, Shuai Liang, Xiaomao Wang, Guoren Xu, Xia Huang. Revisiting the surface energy parameters of standard test liquids with a corrected contact angle method over rough surfaces. *Langmuir*, 2022.

[3] Hao Xu[1], **Yirong Xu[1]**, Kang Xiao*, Tingwei Gao, Ziwei Liu, Wenchao Xue, Chun-Hai Wei, Xia Huang. Interplay of organic components in membrane fouling evolution: Statistical evidence from multiple spectroscopic analyses. *Journal of Membrane Science*, 2022.

[4] Yuan Zhou, Yongze Liu, Li Feng, **Yirong Xu**, Ziwen Du and Liqiu Zhang*. Biochar prepared from maise straw and molasses fermentation wastewater: application for soil improvement. *RSC Advances*, 2020.

Book Chapter:

[1] Kang Xiao*, **Yirong Xu**, Xuyang Cao, Hao Xu, Yufang Li. Advanced characterisation of membrane surface fouling. In: Hui-Hsin Tseng, Woei Jye Lau, Mohammad A. Al-Ghouti, Liang An. *60 Years of the Loeb-Sourirajan Membrane: Principles, New Materials, Modelling, Characterization, and Applications*. Elsevier.

Patent:

[1] Kang Xiao, Jinlan Yu, **Yirong Xu**, Jihua Tan, Yang Zhang, Xia Huang. Method for real-time monitoring of membrane fouling potential. Chinese invention patent, CN202111296331.0

[2] Kang Xiao, **Yirong Xu**, Yizhe Lai. A method for detecting sludge properties. Chinese invention patent, CN 116087024 B