Hao Liu

Post Doc candidate

Profile

Hao's research interest includes greenhouse gas fluxes across soil-water interfaces and associated biogeochemical processes. To address his research questions, he has developed a Cartesian robot for mesocosm experiments, IoT-based modular devices for closed microbial ecosystems, and an automatic fluid control system for sampling porewaters.

Employment History

Lab Manager at East China Normal University, Shanghai
March 2020 — May 2021

Team Lead, Operational Excellence at Supermonkey Fitness, Shanghai
September 2018 — October 2019

Sourcing Specialist at Walmart Global Sourcing, Shanghai
May 2016 — September 2018

Consultant at ERM (Environmental Resource Management), Shanghai
October 2015 — April 2016

Education

PhD, Xi'an Jiaotong-Liverpool University, Suzhou
June 2021 — Present

MSc, University of Tuebingen (Germany), Tuebingen
September 2012 — July 2015

MSc, University of Duisburg-Essen (Germany), Essen
September 2011 — September 2012

BEng, Luebeck University of Applied Sciences, Luebeck
March 2010 — June 2011

BEng, East China University of Science and Technology, Shanghai
September 2007 — June 2011

Patent

An Autosampling System for Soil Microdialysis
February 2023
application number: 202310102665.2, the first inventor after PI

A Cartesian Robot for In-situ Monitoring and Sampling Across Soil-Water Interfaces
March 2024
application number: 202410355850.7, the first inventor after PI

Details

8 Chongwen Road, Suzhou Industrial Park
Suzhou
China
139 1864 8900
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Links

Personal Website

Skills

- 3D Printing
- CNC & Laser Engraving
- Design
- Programming - Python
- IoT-based & Embedded System

Languages

- Chinese
- English
- German

★ Publication

Microbial Community Structure is Stratified at the Millimeter-Scale Across the Soil–Water Interface, (co-author)

Cai, YJ., Liu, ZA., Zhang, S., Liu, H., Nicol G.W., Chen, Z. *ISME Communications. 2, 53 (2022).* https://doi.org/10.1038/s43705-022-00138-z

Cadmium and Arsenic Dynamics at the Capillary Fringe of Paddy Soils, (co-author)

Guo, YA., Zhang, S., Gustave, W., Liu, H., Cai, YJ, Wei, YF., Chen, Z. *Soil & Environmental Health*. (2024) https://doi.org/10.1016/j.seh.2023.100057

Dissolved Solute Sampling Across Oxic-Anoxic Soil-Water Interface Using Microdialysis Profilers, (co-author)

Zhang, S., Yuan, ZF., Cai, YJ., Liu, H., Liu, ZY., Chen, Z. *Journal of Visualized Experiments.* 193, e64358 (2023) https://dx.doi.org/10.3791/64358

Urbanization Reduces Phyllosphere Microbial Network Complexity and Species Richness of Camphor, (co-author)

Zhang, Y., Li, X., Lu, L., Huang, F., Liu, H., Zhang, Y., Yang, L., Usman, M., Li, S. *Microorganisms.* 11, 233 (2023). https://doi.org/10.3390/microorganisms11020233

A Millimeter Scale Perturbation to Leaf Litter at the Soil-Water Interfaces Enhances Methane Emission, (manuscript, first author)

target journal: Water Research

An Automated Chamber Method for Measuring Carbon Dioxide and Methane Fluxes in Mesocosm Experiments, (manuscript, first author)

target journal: Methods in Ecology and Evolution

★ Funding

Postgraduate Research Scholarship, 500,0000 RMB

June 2021 — June 2024

★ Conferences

The 9th Young Scientist Forum of Earth Science, Xiamen

May 2024

oral presentation

The 18th National Environmental Conference for Doctoral Students, Tsinghua University

May 2024

best oral presentation award, chair for an online session

The Postgraduate Research Symposium, XJTLU

December 2023

best poster award, chair for two sessions