

## 孟俊简介

孟俊，男，博士，副研究员，硕士研究生导师。2010.9-2014.6 就读浙江大学并获农学博士学位；2014.7-2018.6 在浙江大学从事专职科研工作；2018 年 7 月至今就职于浙江科技大学环境与资源学院。主要从事土壤重金属污染控制与修复、功能性生物质炭研制与应用、微塑料内源污染物环境行为等领域的研究与教学工作。先后主持国家自然科学基金青年基金、浙江省自然科学基金青年基金和省公益计划研发项目、“十三五”重点研发计划子课题、校优秀青年教师资助计划项目和多项企事业单位农田土壤重金属污染治理修复项目；作为骨干成员参与国家自然科学面上和青年基金项目、浙江省自然科学基金重点项目、浙江省农业“两区”土壤污染治理项目等研究工作。授权国内外发明专利 10 项，参编教材与专著 3 部，在国内外知名期刊 *Journal of Hazardous Materials*、*Pedosphere*、*Bioresource Technology*、*Nature Communications*、*Science of the Total Environment*、*Environmental Pollution* 等发表学术论文 40 多篇（论文被引次数 3300 余次，H 指数 28）。现已指导硕士研究生 10 名，协助指导博士研究生 3 名，指导研究生获得研究生国家奖学金、省级优秀毕业生和校级优秀硕士学位论文等荣誉。担任《生态环境学报》青年编委、浙江省第三次土壤普查技术指导组专家、浙江科技大学第三、四届研究生培养督导组专家。

邮箱：mengjun0912@126.com

校网个人简介：<https://jszy.zust.edu.cn/hjyzyxy/mj2/main.htm>

Researchgate：[https://www.researchgate.net/profile/Jun-Meng-3?ev=hdr\\_xprf](https://www.researchgate.net/profile/Jun-Meng-3?ev=hdr_xprf)

## 代表性科研项目

1. 生物炭施用对镉污染稻田修复机理研究及安全利用技术集成示范（协作），浙江省农业农村厅，2024.01-2025.12，主持；
2. 畜禽粪便炭化转化特性及土壤重金属钝化剂的研配研究，金华市农业农村生态与能源技术推广站，2024.01-2024.12，主持；
3. 浙江省淡水养殖池塘底泥污染现状调查及生态修复关键技术研发与应用（协作），浙江省农业农村厅，2023.03-2024.12，主持；
4. 2023-2025 年农业部酸化耕地治理项目第三方技术服务项目，富阳农业农村局，2023.09-2025.12，主持；
5. 猪粪炭的研制及其在镉污染农田土壤钝化修复中的应用，浙江省基础公益研究计划项目，2021.01-2023.12，主持；

6. 开化县高背景区受污染耕地安全利用技术研发与应用示范项目实施方案编制, 开化县农业农村局, 2021.03-2021.06, 主持;
7. 浙江省生物质炭土壤重金属污染修复研究与示范, 浙江省耕地质量与肥料管理总站, 2020.06-2021.12, 主持;
8. 生物炭中铜锌在炭际微域土壤中的迁移转化机制研究, 国家自然科学基金项目, 2017.01-2019.12, 主持;
9. 生物炭炭际微域土壤中镉的分布和迁移转化机制研究, 浙江省自然科学基金青年项目, 2016.01-2018.12, 主持;
10. 土壤酸化与化肥养分互动机制及其调控原理, “十三五”重点研发计划课题-子课题, 2016.01-2020.12, 主持。

## 代表性科研论文

1. **Jun Meng**, Chengmei Diao, Zhonghua Cui, Zhangtao Li, Jiayi Zhao, Haibo Zhang, Minjun Hu, Jun Xu, Yugen Jiang, Ghulam Haider, Dong Yang, Shengdao Shan, Huaihai Chen\*. Unravelling the influence of microplastics with/without additives on radish (*Raphanus sativus*) and microbiota in two agricultural soils differing in pH. *Journal of Hazardous Materials*, 2024, 478, 135535.
2. Zhongmin Dai, Xu Guo, Jiahui Lin, Xiu Wang, Dan He, Ruijiong Zeng, **Jun Meng**, Jipeng Luo, Manuel Delgado-Baquerizo, Eduarda Moreno-Jiménez, Philip C. Brookes, Jianming Xu\*. Metallic micronutrients are associated with the structure and function of the soil microbiome. *Nature Communications*, 2023, 14, 8456.
3. **Jun Meng**, Wenjin Li, Chengmei Diao, Zhangtao Li, Jiayi Zhao, Ghulam Haider, Haibo Zhang, Jun Xu, Minjun Hu, Shengdao Shan, Huaihai Chen\*. Microplastics drive microbial assembly, their interactions, and metagenomic functions in two soils with distinct pH and heavy metal availability. *Journal of Hazardous Materials*, 2023, 458, 131973.
4. Muhammad Auwal, Han Sun, U.K Adamu, **Jun Meng**\*, Lukas Van Zwieten, Bhupinder Pal Singh, Yu Luo, Jianming Xu. The phosphorus limitation in the post-fire forest soils increases soil CO<sub>2</sub> emission via declining cellular carbon use efficiency and increasing extracellular phosphatase. *Catena*, 2023, 224, 106968.
5. **Jun Meng**, Wenjin Li, Yingbo Qiu, Zhangtao Li, Linze Li, Yu Luo, Haipeng Guo, Yijun Yu, Shengdao Shan, Huaihai Chen\*. Responses of soil microbial communities to manure and

- biochar in wheat cultivation of a rice-wheat rotation agroecosystem in East China. *Pedosphere*. 2023, 33(6), 893-904.
6. **Jun Meng**, Yan Li, Yingbo Qiu, Yu Luo, Yunying Fang, Lukas Van Zwieten, Hailong Wang, Huaihai Chen\*. Biochars regulate bacterial community and their putative functions in the charosphere: a mesh-bag field study. *Journal of Soils and Sediments*, 2023, 23, 596-605.
  7. Wenjin Li, **Jun Meng\***, Yule Zhang, Ghulam Haider, Tida Ge, Haibo Zhang, Yijun Yu, Shengdao Shan. Co-pyrolysis of sewage sludge and metal-free/metal- loaded polyvinyl chloride (PVC) microplastics improved biochar properties and reduced environmental risk of heavy metals. *Environmental Pollution*, 2022, 302(2), 119092.
  8. **Jun Meng**, Henglei Zhang, Zhonghua Cui, Haipeng Guo\*, Ondřej Mašek, Binoy Sarkar, Hailong Wang, Nanthi Bolan, Shengdao Shan\*. Comparative study on the characteristics and environmental risk of potentially toxic elements in biochar obtained via pyrolysis of swine manure at lab and pilot scales. *Science of The Total Environment*, 2022, 825, 153941.
  9. **Jun Meng**, Mengming Tao, Lili Wang, Xingmei Liu\*, Jianming Xu. Changes in heavy metal bioavailability and speciation from a Pb-Zn contaminated soil amended with biochars from co-pyrolysis of rice straw and swine manure. *Science of the Total Environment*, 2018, 633: 300-307.
  10. **Jun Meng**, Sijie Liang, Mengming Tao, Xingmei Liu\*, Philip C. Brookes, Jianming Xu. Chemical speciation and risk assessment of Cu and Zn in biochars derived from co-pyrolysis of pig manure with rice straw. *Chemosphere*, 2018, 200: 344-350.
  11. **Jun Meng**, Lu Wang, Libin Zhong, Xingmei Liu\*, Philip C. Brookes, Jianming Xu, Hongjin Chen. Contrasting effects of composting and pyrolysis on bioavailability and speciation of Cu and Zn in pig manure. *Chemosphere*, 2017, 180: 93-99.
  12. **Jun Meng**, Lili Wang, Xingmei Liu\*, Jianjun Wu, Philip C. Brookes, Jianming Xu\*. Physicochemical properties of biochar produced from aerobically composted swine manure and its potential use as an environmental amendment. *Bioresource Technology*, 2013, 142: 641-646.
  13. 徐建明, 孟俊, 刘杏梅, 施加春, 唐先进. 我国农田土壤重金属污染防治与粮食安全保障. *中国科学院院刊*, 2018, 33(2): 153-158.