

孙亮亮



姓名：孙亮亮

职称：讲师

导师：本科生导师

专业：农学

邮箱：sunll@ynau.edu.cn

■教育和工作经历

- ◆2020.09-2023.07 山西农业大学园艺学院 园艺学 博士
- ◆2015.09-2018.07 山西农业大学农学院 种子科学与技术 硕士
- ◆2011.09-2015.07 晋中学院 生物技术 学士

■研究方向

- ◆植物-环境互作；植物营养生物学

■奖励与荣誉

- ◆2021年，获云南省科学技术奖自然科学二等奖。

■科研项目

- ◆山西农业大学科技创新基金项目，2020QC13，纳米氧化锌提高番茄对缺铁胁迫耐受机理研究，2020/06 - 2023/05，结题，主持
- ◆山西省研究生创新项目，2021Y307，叶面喷施纳米氧化锌降低番茄果实中镉累积的生理与分子机理，2021/09 - 2022/09，结题，主持
- ◆山西省基础研究计划项目，20210302124369，番茄SIATAF1L参与调控花青素累积的分子机制研究，2022/01 - 2024/12，在研，主持

■ 教改项目

无

■代表性论文

◆**Liangliang Sun**, Ruting Wang, Qiong Ju, Menglu Xing, Ruishan Li, Weimin Li, Wen Li, Wenyong Wang, Yanfang Deng, Jin Xu*. Mitigation mechanism of zinc oxide nanoparticles on cadmium toxicity in tomato, *Frontiers in Plant Science*, 2023

◆**Liangliang Sun**, Ping Zhang, Fei Liu, Qiong Ju, Jin Xu*. Molecular and genetic analyses revealed the phytotoxicity of perfluorobutane sulfonate.

Environment International, 2022

◆**Liangliang Sun**, Ping Zhang, Menglu Xing, Ruishan Li, Hao Yu, Qiong Ju, Jianli Yang, and Jin Xu*. NAC32 alleviates magnesium toxicity-induced cell death through positive 2 regulation of *XIPOTLI* expression. *Plant Physiology*, 2022

◆**Liangliang Sun**, Ruting Wang, Qiong Ju, Jin Xu*. Physiological, Metabolic and Transcriptomic Analyses Reveal the Responses of Arabidopsis Seedlings to Carbon Nanohorns. *Environmental Science & Technology*, 2020

◆**Liangliang Sun**, Yibo Wang, Ruling Wang, Ruting Wang, Ping Zhang, Qiong Ju, Jin Xu*. Physiological, transcriptomic, and metabolomic analyses reveal zinc oxide nanoparticles modulate plant growth in tomato. *Environmental Science-Nano*, 2020

◆**Liangliang Sun**, Ming Cao, Fei Liu, Yibo Wang, Jinpeng Wan, Ruling Wang, Huakun Zhou, Wenyong Wang, Jin Xu*. The volatile organic compounds of *Floccularia luteovirens* modulate plant growth and metabolism in *Arabidopsis thaliana*. *Plant and Soil*. 2020

◆**Liangliang Sun**, Ping Zhang, Ruling Wang, Jinpeng Wan, Qiong Ju, Steven J. Rothstein, Jin Xu*. The SNAC-A transcription factor ANAC032 reprograms metabolism in *Arabidopsis*, *Plant and Cell Physiology*, 2019

◆Ping Zhang, **Liangliang Sun**, Fei Liu, Qingqing Gao, Ruting Wang, Qiong Ju, Jin Xu*. Perfluorooctanoic acid and perfluorooctane sulfonic acid inhibit plant growth through the modulation of phytohormone signalling pathways: Evidence from

molecular and genetic analysis in Arabidopsis. *Science of the Total Environment*, 2022

◆Ming Cao, Fei Liu, **Liangliang Sun**, Yibo Wang, Jinpeng Wan, Ruling Wang, Huakun Zhou, Wenying Wang, Jin Xu*. Floccularia luteovirens modulates the growth of alpine meadow plants and affects soil metabolite accumulation on the Qinghai-Tibet Plateau. *Plant and Soil*. 2021

◆ Ruting Wang, **Liangliang Sun**, Ping Zhang, Jinpeng Wan, Yibo Wang, Jin Xu*. Zinc oxide nanoparticles alleviate cadmium stress by modulating plant metabolism and decreasing cadmium accumulation in *Perilla frutescens*. *Plant Growth Regulation*. 2022

◆Huimin Guo, **Liangliang Sun**, Jin Xu*, Fei Liu, Ruishan Li, and Ping Zhang. Comparative Transcriptomic Analysis Identified the Genes Involved in Anthocyanin Accumulation in *Perilla frutescens*. *Russian Journal of Plant Physiology*. 2022

◆Ping Zhang, **Liangliang Sun**, Jun Qin, Jinpeng Wan, Ruling Wang, Jin Xu*. cGMP is involved in Zn tolerance through PIN4-mediated auxin redistribution in root tips. *Environmental and Experimental Botany*. 2018

■ **教材及专著**

无

■ **专利及标准**

无