

孙凯, 男, 中共党员

学习经历

2012/09–2016/06 本科 南京师范大学 生物科学 (国家理科基地)

2016/09–今 硕博连读 (保送) 南京师范大学 微生物学

研究方向: 氮素调控植物-微生物互作规律及机制研究

主要成就: 以第一作者或者共同作者在 FEMS Microbiology Ecology, Fungal Ecology, Journal of Applied Microbiology, The ISME Journal, Plant Cell and Environment, Chemosphere 等国际期刊发表多篇论文, 并获江苏省研究创新项目一项。

学术论文:

1. **Kai Sun**, Feng-Min Zhang, et al. Rice carbohydrate dynamics regulate endophytic colonization of *Diaporthe liquidambaris* in response to external nitrogen, **Fungal Ecology**, doi.org/10.1016/j.funeco. 2019.
2. **Kai Sun**, Wei Zhang, et al. Nitrogen fertilizer-regulated plant-fungi interaction is related to root invertase-induced hexose generation, **FEMS Microbiology Ecology**, doi: 10.1093/femsec/faa139, 2020.
3. **Kai Sun**, Wei Cao, et al. Symbiotic fungal endophyte *Phomopsis liquidambari*-rice system promotes nitrogen transformation by influencing below-ground straw decomposition in paddy soil, **Journal of Applied Microbiology**, 2019, 126(1):191-203.
4. Hong-Wei Wang#, **Kai Sun**# (共一), et al. Fungal endophyte *Phomopsis liquidambari* biodegrades soil resveratrol: a potential allelochemical in peanut monocropping systems[J]. **Journal of the Science of Food and Agriculture**, 2019, 99(13), 2019.
5. **孙凯**, 胡丽燕, 张伟, 等. 水稻根系泌氧对土壤微生物区系及氮素矿化影响的研究进展. **生态学杂志**, 2016(12): 3413-3420.
6. Wei Zhang, Xiao-Gang Li, **Kai Sun**, et al. Mycelial network-mediated rhizobial dispersal enhances legume nodulation. **The ISME Journal**, 2020, 14: 1015-1029.
7. Wei Zhang, **Kai Sun**, et al. Auxin signalling of *Arachis hypogaea* activated by colonization of mutualistic fungus *Phomopsis liquidambari* enhances nodulation and N₂-fixation. **Plant, Cell and Environment**, 2018.
8. Jie Yuan, **Kai Sun**, et al. The mechanism of ethylene signaling induced by endophytic fungus *Gilmaniella* sp. AL12 mediating sesquiterpenoids biosynthesis in *Atractylodes lancea*. **Frontiers in Plant Science**, 2016, 7(63).
9. Wan-Qiu Fu, Man Xu, **Kai Sun**, et al. Biodegradation of phenanthrene by endophytic fungus *Phomopsis liquidambari* in vitro and in vivo. **Chemosphere, Environmental Toxicology and Risk Assessment**, 2018.
10. Wan-Qiu Fu, Man Xu, **Kai Sun**, et al. Remediation mechanism of endophytic fungus *Phomopsis liquidambaris* on phenanthrene *in vivo*. **Chemosphere, Environmental Toxicology and Risk Assessment**, 2020.
11. Jia-Yu Zhou, **Kai Sun**, et al. Endophytic *Pseudomonas* induces metabolic flux changes that enhance medicinal sesquiterpenoid accumulation in *Atractylodes lancea*. **Plant Physiology and Biochemistry**, 2018, 130:473-481.
12. Man Xu, Hong-Yan Bai, Wan-Qiu Fu, **Kai Sun**, et al. Endophytic bacteria promote the quality of *Lyophyllum decastes* by improving non-volatile taste components of mycelia. **Food Chemistry**, 2021.

基金项目:

1. **孙凯** 氮素信号参与枫香拟茎点霉在水稻中定殖的机理研究 (江苏省研究生科研与实践创新计划, 项目编号 KYCX19_0794), 2019.