

---

# 亚热带生态所在EMPlant and Soil杂志发表专刊

作者：writer 来源：中国科学院

本文原地址：<https://www.iikx.com/news/progress/7391.html>

**本文仅供学习交流之用，版权归原作者所有，请勿用于商业用途！**

近日，中国科学院亚热带农业生态研究所研究员吴金水领衔的“农业生态过程”研究团队在农林科学期刊Plant and Soil上组织的Element biogeochemistry processes and their implications for rice productivity in paddy soil

专刊由Springer在线发表。专刊由亚热带生态所研究员葛体达组织，西南大学教授何新华、浙江大学副教授罗煜作为客座编辑共同完成。葛体达为此专刊撰写了题为Quantitative and mechanistic insights into the key process in the rhizodeposited carbon stabilization, transformation and utilization of carbon, nitrogen and phosphorus in paddy soil 的评述文章。该团队的1篇论文筛选为此专刊的封面论文（如图）。

专刊内容主要集中于水稻土碳氮磷元素过程的生物地球化学机制研究，收录论文12篇，包括：水稻根际沉积碳输入、土壤酶谱、氮循环的微生物机制、氮磷养分利用以及水稻-油菜体系氮素高效利用等。专刊为水稻土的肥力提升和稻作系统的提质增效等过程管理提供了理论指导与技术支撑。

该专刊主要集成了“农业生态过程方向研究团队”近年来关于水稻元素（主要是有机碳循环）关键过程的研究成果，主要获得国家重点研发项目、国家自然科学基金、湖南省自然科学基金创新群体项目、中科院亚热带生态所青年创新团队项目等的资助。

附“农业生态过程方向研究团队”专刊文章列表：

1)Tida Ge, Yu Luo, Xinhua He. Quantitative and mechanistic insights into the key process in the rhizodeposited carbon stabilization, transformation and utilization of carbon, nitrogen and phosphorus in paddy soil. Plant and Soil. 2019, DOI.org/10.1007/s11104-019-04347-9

2)Huadong Zang, Mouliang Xiao, Yidong Wang, Ning Ling, Jinshui Wu, Tida Ge, Yakov Kuzyakov. Allocation of assimilated carbon in paddies depending on rice age, chase period and N fertilization: Experiment with <sup>13</sup>C<sub>2</sub> labelling and literature synthesis. Plant and Soil. 2019, DOI: 10.1007/s11104-019-03995-1

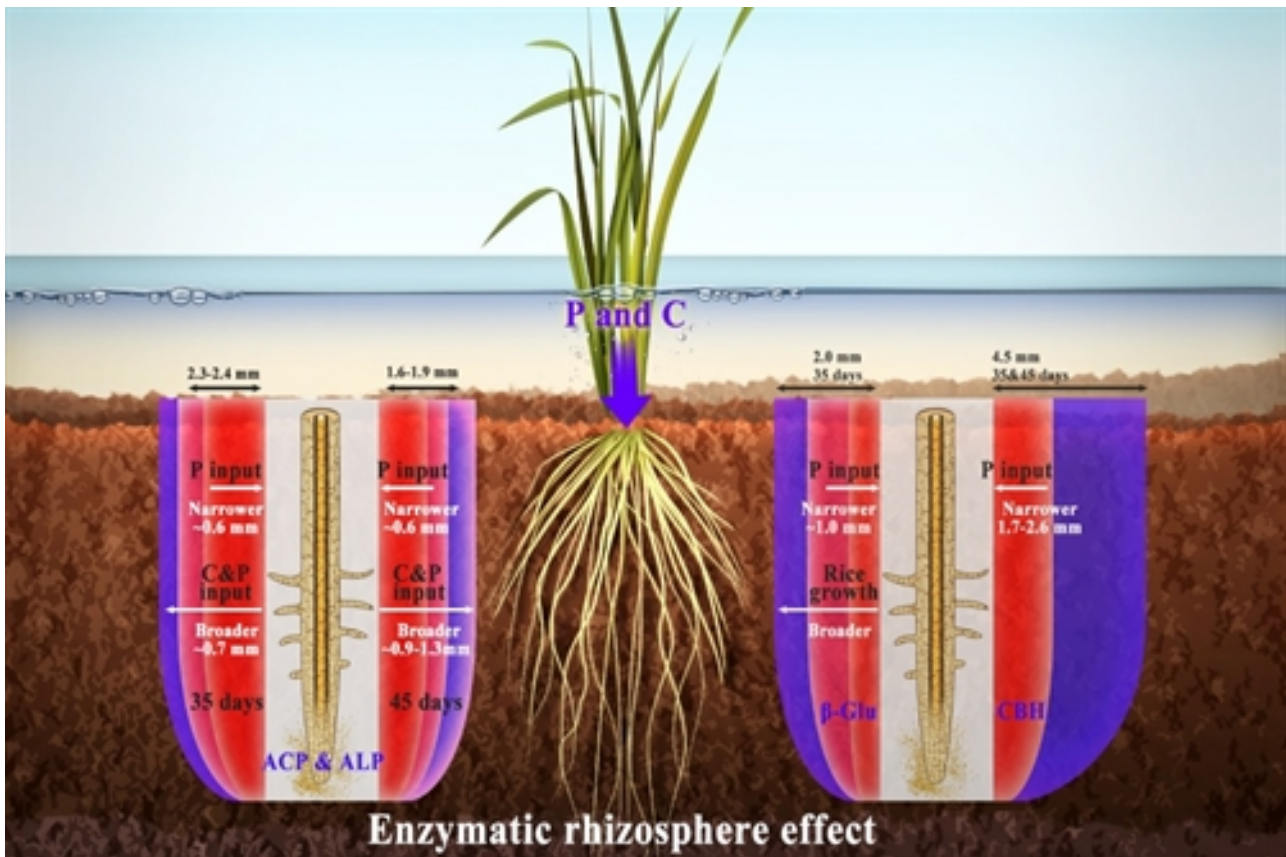
3)Mouliang Xiao, Huadong Zang, Shoulong Liu, Rongzhong Ye, Zhenke Zhu, Yirong Su, Jinshui Wu, Tida Ge. Nitrogen fertilization alters the distribution and fates of photosynthesized carbon in rice – soil systems: A <sup>13</sup>C-CO<sub>2</sub> pulse labeling study. Plant and Soil. 2018, DOI: 10.1007/s11104-019-04030-z

4) Ziwei Zhao, Tida Ge, Anna Gunina, Yuhong Li, Zhenke Zhu, Peiqin Peng, Jinshui Wu, Yakov Kuzyakov. Carbon and nitrogen availability in paddy soil affects rice photosynthate allocation, microbial community composition, and priming: combining continuous  $^{13}\text{C}$  labeling with PLFA analysis. *Plant and Soil*. 2018, DOI : 10.1007/s11104-018-3873-5

5) Xiaomeng Wei, Tida Ge, Zhenke Zhu, Yajun Hu, Shoulong Liu, Yong Li, Jinshui Wu, Bahar S. Razavi. Expansion of rice enzymatic rhizosphere: temporal dynamics in response to phosphorus and cellulose application. *Plant and Soil*. 2018, DOI : 10.1007/s11104-018-03902-0

6) Cornelius Talade Atere, Tida Ge, Zhenke Zhu, Shoulong Liu, Xizhi Huang, Olga Shibusitova, Georg Guggenberger, Jinshui Wu. Assimilate allocation by rice and carbon stabilisation in soil: effect of water management and phosphorus fertilization. *Plant and Soil*. 2018, DOI: 10.1007/s11104-018-03905-x

7) Yu Luo, Zhenke Zhu, Shoulong Liu, Peiqin Peng, Jianming Xu, Philip Brookes, Tida Ge, Jinshui Wu, Nitrogen fertilization increases rice rhizodeposition and its stabilization in soil aggregates and the humus fraction. *Plant and Soil*. 2018, doi.org/10.1007/s11104-018-3833-0.



图：磷肥施用和外源碳添加对水稻根际酶活热区范围的影响机制（专刊封面文章）

研究团队单位：亚热带农业生态研究所

更多科学进展 请访问 <https://www.iikx.com/news/progress/>

---

本文版权归原作者所有，请勿用于商业用途，[爱科学iikx.com](http://iikx.com)转发