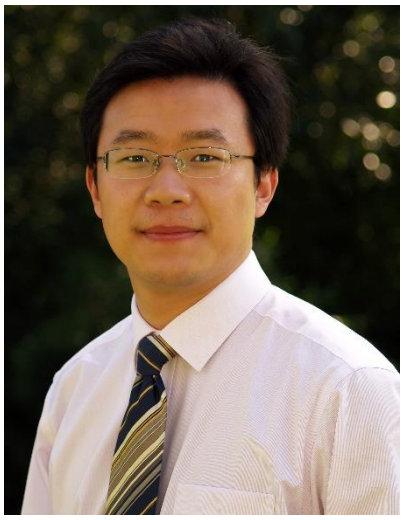

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从事专业：

环境生物学、土壤重金属污染与修复、环境暴露与人体健康

研究方向：

- 土壤与人体健康
- 人体离子组学
- 元素原位高通量和高灵敏度分析技术
- 农田土壤重金属污染与修复
- 环境生物学

招生方向：

农业资源与环境、微生物、环境科学与工程

欢迎对科学研究感兴趣的优秀学生报考本人硕士及博士研究生！

欢迎在相关研究方向取得博士学位的加盟本团队进行博士后研究！

招聘师资博后、讲师、副教授，要求：

- 具有生物信息学、环境生物学、环境科学、代谢组学、遗传学、或图像处理等相关领域获得博士学位
- 对科学研究有强烈兴趣，有创新思维，动手能力强，有独立开展科研能力
- 工作勤奋、富有团队合作精神

教育经历：

2006/09–2011/07，中国科学院，南京土壤研究所，博士
2002/09–2006/07，安徽大学，生命科学学院，学士

研究工作经历:

2016/03–至今，南京农业大学 资源与环境科学学院，教授、博导

2015/01–2016/12，澳大利亚 昆士兰大学，农业与食品科学学院，Research Fellow / Lecturer

2013/01–2015/12，澳大利亚 昆士兰大学，ARC DECRA Research Fellow

2011/08–2012/12，澳大利亚 昆士兰大学，农业与食品科学学院，博后

学术任职与服务:

- 国际 SCI 期刊《Plant and Soil》编委 (2015-)；《土壤学报》编委
- 《Frontiers in Plant Science》、《Journal of Chemistry》客座 Editor
- 澳大利亚同步辐射中心项目评审委员（2014- ）
- 江苏省耕地土壤污染防治专家组成员（2020-）
- 江苏省土壤学会理事 （2016-）
- 江苏省土壤学会教育专业委员会主任（2020- ）
- 中国土壤学会土壤分析专业委员会副主任（2019-）
- 中国地方病氟砷硒专业委员会委员（2020-）
- 中国植物生理学会修复生物学专业委员会委员（2019- ）
- 中国土壤学会土壤环境专业委员会委员（2018- ）
- 10 余种国际期刊审稿人，《Environmental Pollution》 Outstanding Reviewer

获奖及荣誉:

2020	中国土壤学会优秀青年学者奖
2018	江苏省杰出青年基金获得者
2013	ARC Discovery Early Career Researcher Award (Australian Research Council) (澳大利亚政府“探索”青年研究学者奖)
2012	中国科学院 优秀博士学位论文
2011	中国科学院 院长特别奖

主持的科研项目:

1. 国家重点研发计划重点专项课题，土壤微界面复合污染过程多技术方法研究，359 万，2020-2024. 主持
2. 国家自然科学基金面上项目，我国典型镉污染地区人群健康风险定量化关系研究，62 万，2020-2023. 主持

3. 江苏省自然科学基金杰出青年项目，农田土壤镉、砷污染阻控，100 万，2019-2022. 主持
4. 国家重点研发计划重点专项课题，典型场地土壤重金属的形态转化过程与调控机制，62 万，2019-2022. 参与
5. 国家重点研发计划重点专项课题，土壤砷、铬迁移转化和生物有效性研究，400 万，2016-2020. 主持
6. 国家自然科学基金面上项目，水稻土 Cd 生物有效性的控制过程解析与调控，66 万，2017-2020. 主持
7. 南京农业大学资源与环境学院人才引进项目，30 万，2016-2017. 主持
8. 国家青年人才项目，300 万，2016-2020. 主持
9. 南京农业大学高层次引进人才启动基金，300 万，2016-2020. 主持

10. CSIRO (澳大利亚联邦科学与工业研究组织). Fate and behaviour of nanomaterials in terrestrial ecosystems and ecosystem health. Peter Kopittke, Neal Menzies, and Peng Wang. AU$ 100,000. 2015-2019.
11. ARC (澳大利亚政府研究委员会) Discovery of Early Career Researcher Award: Improving risk-based assessments of trace metal bioavailability in soil-plant systems: A focus on cadmium (Cd). Peng Wang (Fellowship). ARC DECRA AU$ 375,000. 2012-2015.
12. UQ (澳大利亚昆士兰大学) Early Career Research Scheme: Synchrotron-based XANES imaging for studying uptake, speciation, and translocation of selenium in soil-crop systems. Peng Wang. The University of Queensland. AU$39,400. 2014.

主要学术专著与论文（*:通讯作者）：

Updated on July 1, 2021

- **社会服务**

1. **汪鹏**，赵方杰，曹卫星. 《内参咨询报告》. 2019.（得到国家领导人重要批示，受到国务院多部委高度重视）

- **发明专利和软件著作权**

2. **汪鹏**，戴军，赵方杰. 水稻籽粒中一种高毒性的砷形态二甲基单巯基砷的分析方法. 2020. 专利申请号：202011249322.1
3. **汪鹏**，黄辉，赵方杰. 一种抑制稻田土壤有效态镉释放和稻米镉积累的方法. 2020. 专利申请号: 202010083416.X
4. **汪鹏**，王静，赵方杰. 污染农田稻米镉阻控的锰负载生物炭的制备与应用. 2020. 专利申请号：202010651023.4
5. **汪鹏**，赵方杰，陈宏坪，唐仲. 酸性土壤改良和镉污染农田安全利用石灰质物料用量计算软件. 2020. 软件著作权登记号：2020SR1004367

- **专著章节**

6. **Wang P***, Kopittke PM, McGrath S, Zhao FJ. 2017. Cadmium transfer from soil to plants and its potential risk to human health. In: Singh BR, McLaughlin MJ, Brevik E (eds). *The Nexus of Soils, Plants, Animals and Human Health*. Catena- Schweizerbart: Stuttgart, pp 138-147.

- **学术论文 (* 通讯作者)**

2021

7. Huang H, Zhao D, **Wang P*** 2021. Biogeochemical Control on the Mobilization of Cd in Soil. ***Current Pollution Reports*** 7: 194-200.
8. Huang H, Chen H-P, Kopittke PM, Kretzschmar R, Zhao F-J, **Wang P*** 2021. The Voltaic Effect as a Novel Mechanism Controlling the Remobilization of Cadmium in Paddy Soils during Drainage. ***Environmental Science & Technology*** 55: 1750-1758.
9. Dai J, Chen C, Gao AX, Tang Z, Kopittke PM, Zhao F-J, **Wang P*** 2021. Dynamics of Dimethylated Monothioarsenate (DMMTA) in Paddy Soils and Its Accumulation in Rice Grains. ***Environmental Science & Technology***. In press. doi: 10.1021/acs.est.1c00133.
10. Huang H, Ji X-B, Cheng L-Y, Zhao F-J, **Wang P*** 2021. Free Radicals Produced from the Oxidation of Ferrous Sulfides Promote the Remobilization of Cadmium in Paddy Soils During Drainage. ***Environmental Science & Technology.*** In press. doi: 10.1021/acs.est.1c00576.
11. Xu Z-R, Cai M-L, Chen S-H, Huang X-Y, Zhao F-J, **Wang P*** 2021. High-Affinity Sulfate Transporter Sultr1;2 Is a Major Transporter for Cr(VI) Uptake in Plants. ***Environmental Science & Technology*** 55: 1576-1584.
12. Zhang S-N, Gu Y, Zhu Z-L, Hu S-H, Kopittke PM, Zhao F-J, **Wang P*** 2021. Stable isotope fractionation of cadmium in the soil-rice-human continuum. ***Science of The Total Environment*** 2020.143262.
13. Zhang YQ, Finn D, Bhattacharyya R, Dennis PG, Doolette AL, Smernik RJ, Dalal RC, Meyer G, Lombi E, Klysubun W, Jones AR, **Wang P***, Menzies NW, Kopittke PM 2021. Long-term changes in land use influence phosphorus concentrations, speciation, and cycling within subtropical soils. ***Geoderma*** 393: 13.
14. Chen C, Yang BY, Shen Y, Dai J, Tang Z, **Wang P**, Zhao FJ* 2021. Sulfate addition and rising temperature promote arsenic methylation and the formation of methylated thioarsenates in paddy

soils. ***Soil Biology & Biochemistry*** 154: 9.

15. Kopittke PM*, Menzies NW, Dalal RC, McKenna BA, Husted S, **Wang P**, Lombi E 2021. The role of soil in defining planetary boundaries and the safe operating space for humanity. ***Environment International*** 146: 8. doi: 10.1016/j.envint.2020.106245.
16. Yan JL, Fischel M, Chen HP, Siebecker MG, **Wang P**, Zhao FJ*, Sparks DL 2021 Cadmium speciation and release kinetics in a paddy soil as affected by soil amendments and flooding-draining cycle. ***Environmental Pollution*** 268: 10. doi: 10.1016/j.envpol.2020.115944.
17. Chen H-P, **Wang P*,** Chang J-D, Kopittke PM, Zhao F-J 2021. Producing Cd-safe rice grains in moderately and seriously Cd-contaminated paddy soils. ***Chemosphere*** 128893.

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18. Gu Y, **Wang P*,** Zhang S, Dai J, Chen H, Lombi E, Zhao F-J 2020. Chemical speciation and distribution of cadmium in rice grain and implications for bioavailability to humans. ***Environmental Science & Technology*** 54(19): 12072-12080.
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21. Chang J-D, Huang S, Konishi N, **Wang P,** Chen J, Huang X-Y, Zhao F-J 2020. Overexpression of the manganese/cadmium transporter OsNRAMP5 reduces cadmium accumulation in rice grain. ***Journal of Experimental Botany*** 71(18): 5631-5644.
22. Tang Z, Wang Y, Gao A, Ji Y, Yang B, **Wang P**, Tang Z, Zhao F-J 2020. Dimethylarsinic acid is the causal agent inducing rice straighthead disease. ***Journal of Experimental Botany*** 71(18): 5631-5644.
23. Kopittke PM, Lombi E, van der Ent A, **Wang P*,** Laird J, Moore K, Persson DP, Husted S 2020. Methods to visualize elements in plants. ***Plant Physiology*** 182: 1869-1882.
24. Chen H, **Wang P***, Gu Y, Kretzschmar R, Kopittke PM, Zhao F-J 2020. The within-field spatial variation in rice grain Cd concentration is determined by soil redox status and pH during grain filling. ***Environmental Pollution*** 261: 114151.
25. Dai J, Tang Z, Jiang N, Kopittke PM, Zhao F-J, **Wang P*** 2020. Increased arsenic mobilization in

the rice rhizosphere is mediated by iron-reducing bacteria. ***Environmental Pollution*** 263: 114561.

26. Wu J, Li C, Zhang J, Menzies NW, Bertsch PM, **Wang P***, Kopittke PM 2020. Release of silver from nanoparticle-based filter paper and the impacts to mouse gut microbiota. ***Environmental Science: Nano*** 7, 1554-1565.
27. Wu J, Bai Y, Lu B, Li C, Menzies NW, Bertsch PM, Wang Z, **Wang P*,** Kopittke PM 2020. Application of sewage sludge containing environmentally-relevant silver sulfide nanoparticles increases emissions of nitrous oxide in saline soils. ***Environmental Pollution*** 265: 114807.
28. 赵方杰，谢婉滢，**汪 鹏.** 2020. 土壤与人体健康. ***土壤学报***, 57(1): 1-11.
29. Lu J, Zhang S, Gao S, **Wang P,** Bond PL, Guo J 2020. New insights of the bacterial response to exposure of differently sized silver nanomaterials. ***Water Research*** 169:115205.

2019

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31. Kopittke PM, Menzies NW, **Wang** P*, McKenna BA, Lombi E 2019. Soil and the intensification of agriculture for global food security. ***Environment International*** 132:105078.
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33. **Wang P*,** Zhao F-J, Kopittke PM 2019. Engineering Crops without Genome Integration Using Nanotechnology. ***Trends in Plant Science*** 24 (7), 574-577.
34. **Wang P***, Chen H, Kopittke PM, Zhao F-J 2019. Cadmium contamination in agricultural soils of China and the impact on food safety. ***Environment Pollution*** 249, 1038-1048. (**ESI 高被引论文**)
35. Xu X, **Wang P***, Zhang J, Chen C, Wang Z, Kopittke PM, Kretzschmar R, Zhao F-J 2019. Microbial sulfate reduction decreases arsenic mobilization in flooded paddy soils with high potential for microbial Fe reduction. ***Environmental Pollution*** 251, 952-960.
36. **Wang P*,** McKenna BA, Menzies NW, Li C, Glover C, Zhao F-J, Kopittke PM 2019. Minimizing experimental artefacts in synchrotron-based X-ray analyses of Fe speciation in tissues of rice plants. ***Journal of Synchrotron Radiation*** 26, 1272-1279.

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39. **汪鹏***，王静，陈宏坪，周东美，赵方杰. 2018. 我国稻田系统镉污染风险与阻控. *农业环境科学学报*, 37(7): 1409-1417.

40. Xiong L, **Wang P***, Hunter MN, Kopittke PM 2018. Bioavailability and movement of hydroxyapatite nanoparticles (HA-NPs) applied as a phosphorus fertiliser in soils. ***Environmental Science: Nano.*** 5, 2888-2898.

41. **Wang P***, Lombi E, Menzies NW, Zhao F-J, Kopittke PM 2018. Engineered silver nanoparticles in terrestrial environments: a meta-analysis shows that the overall environmental risk is small. ***Environmental Science: Nano*** 5, 2531-2544. **(封面文章)**

42. Xiong L, **Wang P*,** Kopittke PM 2018. Tailoring hydroxyapatite nanoparticles to increase their efficiency as phosphorus fertilisers in soils. ***Geoderma*** 323, 116-125.

43. Li C, **Wang P***, Lombi E, Cheng M, Tang C, Howard DL, Menzies NW, Kopittke PM 2018. Absorption of foliar-applied Zn fertilizers by trichomes in soybean and tomato. ***Journal of Experimental Botany*** 69, 2717-2729.

44. **Wang P*,** Menzies NW, Chen H, Yang X, McGrath SP, Zhao F-J, Kopittke PM 2018. Risk of silver transfer from soil to the food chain is low after long-term (20 years) field applications of sewage sludge. ***Environmental Science & Technology*** 52, 4901-4909.

45. Kopittke PM, Punshon T, Paterson DJ, Tappero RV, **Wang P***, Blamey FPC, van der Ent A, Lombi E 2018 Synchrotron-Based X-Ray Fluorescence Microscopy as a Technique for Imaging of Elements in Plants. ***Plant Physiology*** 178, 507-523. **(封面文章)** **(ESI 高被引论文)**

46. Blamey FPC, McKenna BA, Li C., Cheng M, Tang C, Jiang H, Howard DL, Paterson DJ, Kappen P, **Wang P**, Menzies NW, Kopittke PM 2018. Manganese distribution and speciation help to

explain the effects of silicate and phosphate on manganese toxicity in four crop species. ***New Phytologist*** 217, 116-1160.

47. Hernandez-Soriano MC, Dalal RC, Warren FJ, **Wang P**, Green K, Tobin MJ, Menzies NW, Kopittke PM 2018. Soil Organic Carbon Stabilization: Mapping Carbon Speciation from Intact Microaggregates. ***Environmental Science & Technology*** 52, 12275-12284.
48. Chen H, Yang X, **Wang P**, Wang Z, Li M, Zhao F-J 2018. Dietary cadmium intake from rice and vegetables and potential health risk: A case study in Xiangtan, southern China. ***Science of the Total Environment*** 639, 271-277. (**ESI 高被引论文**)
49. Chen H, Tang Z, **Wang P**, Zhao F-J 2018. Geographical variations of cadmium and arsenic concentrations and arsenic speciation in Chinese rice. ***Environmental Pollution*** 238, 482-490.
50. Chen H, Zhang W, Yang X, **Wang P**, McGrath SP, Zhao F-J 2018. Effective methods to reduce cadmium accumulation in rice grain. ***Chemosphere*** 207, 699-707.
51. Li Z., **Wang P*,** Menzies NW and Kopittke PM 2018. Defining appropriate methods for studying toxicities of trace metals in nutrient solutions. ***Ecotoxicology and Environmental Safety*** 147, 872-880.
52. Kopittke P M, Dalal R C, **Wang P** and Menzies NW 2018. Effects of long-term cultivation on phosphorus (P) in five low-input, subtropical Australian soils. ***Agricultural Ecosystem Environment*** 252, 191-199.
53. Li C, **Wang P**, Lombi E, Wu J, Blamey FPC, Fernández V, Howard DL, Menzies NW, Kopittke PM 2018. Absorption of foliar applied Zn is decreased in Zn deficient sunflower (*Helianthus annuus*) due to changes in leaf properties. ***Plant and Soil*** 433, 309-322.
54. Cheah ZX, Kopittke PM, Harper SM, O'Hare TJ, **Wang P**, Paterson DJ, de Jonge MD, Bell MJ 2018. In situ analyses of inorganic nutrient distribution in sweetcorn and maize kernels using synchrotron-based X-ray fluorescence microscopy. ***Annals of Botany***, mcy189-mcy189.

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56. Kopittke PM, McKenna BA, Karunakaran C, Dynes JJ, Arthur Z, Gianoncelli A, Kourousias G, Menzies NW, Ryan PR, **Wang P***, Green K, Blamey FPC. 2017. Aluminum Complexation with Malate within the Root Apoplast Differs between Aluminum Resistant and Sensitive Wheat Lines.

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58. Li C, **Wang P***, Menzies NW, Lombi E and Kopittke PM. 2017. Effects of changes in leaf properties mediated by methyl jasmonate (MeJA) on foliar absorption of Zn, Mn, and Fe. ***Annals of Botany***. 120, 405-415.

59. Li M, **Wang P**, Dang F and Zhou DM. 2017. The transformation and fate of silver nanoparticles in a paddy soil: Effects of soil organic matter and redox conditions. ***Environmental Science: Nano***. 4, 919-928.

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