

# Yu Peng

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## EDUCATION

**Nanjing Normal University, China**

09/2020-Present

Master of Environmental Engineering, Average score: 83.17/100 (top12%)

**Nanjing Institute of Technology, China**

09/2015-07/2019

Bachelor of Environmental Engineering, Average score: 89.35/100 (top5%)

## RESEARCH INTERESTS

Carbon pool and cycle, Co-metabolism, Eutrophication, Greenhouse gas emissions, Climate change

## RESEARCH EXPERIENCE

### Scientific Research Project

- **As project principal**

- a. Effects of co-metabolism on sedimentary carbon pool balance in eutrophic lakes(18120000241021)

Major contributions: Propose design of the microcosm systems, prove the occurrence of co-metabolism and the migration of carbon with experiments.

- **As participant**

- a. Major Science and Technology Program for Water Pollution Control and Treatment (2017ZX07203-003)
- b. Source, migration and transformation mechanisms of sedimentary organic carbon in eutrophic lakes under climate warming(41703105)
- c. Effects of co-metabolism on sedimentary carbon pool balance and its response to climate warming in eutrophic lakes(42077294)
- d. Influence mechanism of vegetation succession under hydrological stress on carbon transformation in Yangtze River Estuary wetland(BK20180148)

Major contributions: Participate in the design and operation of some experiments, the data processing and article writing.

### Research Subject

- Co-metabolism on sedimentary in eutrophic lakes
- Investigation of shallow lakes in the Yangtze River Basin
- Carbon emission in estuarine wetland under the influence of the hydrological stress
- Seasonal variations of sulfate and greenhouse gas emissions in Taihu Lake, a typical eutrophic shallow lake

## PUBLICATIONS

- **Yu Peng**, Chuanqiao Zhou, Qiu Jin, et al. Tidal variation and litter decomposition co-affect carbon emissions in estuarine wetlands. Science of the Total Environment 2022, 839:156357.

<http://dx.doi.org/10.1016/j.scitotenv.2022.156357> (Co-first Author)

- **Yu Peng**, Chuanqiao Zhou, Xiaoguang Xu\*, et al. Effects of suspended carbon particulate matter on lake carbon emissions: evidence from isotopic tracers. Water Research 2022. **Under Review**
- Baogui Liu, **Yu Peng**, Miaotong Yu, et al. The insignificant effect of increased sulfate concentration on nitrogen dynamics in eutrophic lakes: the neglected role of iron ions. Marine and Freshwater Research 2022, DOI : 10.1071/MF22086. <https://doi.org/10.1071/MF22086> (**Co-first Author**)
- Chuanqiao Zhou, **Yu Peng**, Li Chen, et al. Rapidly increasing sulfate concentration: a hidden promoter of eutrophication in shallow lakes. Biogeosciences 2022, 19:4351-4360. <https://doi.org/10.5194/bg-19-4351-2022> (**Co-first Author**)
- Chuanqiao Zhou, **Yu Peng**, Miaotong Yu, et al. Severe cyanobacteria accumulation potentially induces methylotrophic methane producing pathway in eutrophic lakes. Environmental Pollution 2022, 292:118443. <https://doi.org/10.1016/j.envpol.2021.118443> (**Co-first Author**)
- Chuanqiao Zhou, **Yu Peng**, Xiaoguang Xu\*, et al. Increasing sulfate concentration and sedimentary decaying cyanobacteria co-affect organic carbon mineralization in eutrophic lake sediments. Science of the Total Environment 2022, 806:151260. <https://doi.org/10.1016/j.scitotenv.2021.151260> (**Co-first Author**)
- Chuanqiao Zhou, **Yu Peng**, Xiaoguang Xu\*, et al. Effects of sulfate on methane production during cyanobacteria decay processes in eutrophic lakes. Journal of Lake Science, 2021. 33(6): 1639-1649. <https://dx.doi.org/10.18307/2021.0603>

## HONORS AND AWARDS

- National scholarship (**top1%, highest scholarship from Ministry of Education of China**) NNU, 2022
- The Second Prize Scholarship NNU, 2021
- Outstanding Graduate (**top 5%**) NJIT, 2019
- Merit Student (**top10%**) NJIT, 2019
- Outstanding Student Scholarship, Golden award (**top 2%**)/ First Prize (**top10%**) NJIT, 2019-2015
- Award of Excellent Student Cadre (**top10%**) NJIT, 2017

## PROFESSIONAL SKILLS

### Experimental Operation

- Sample collection, processing and quality determination (including Gas/water/sediment/plant)
- Proficient in the use of laboratory instruments (mainly including AA3/UV-Vis/TOC/GC-MS/etc.)
- Design and construction of the microcosm systems

### Computer

- Specialized software: Origin, R, SPSS, Adobe illustrator
- Literature searching online

## REFERENCES

- Associate Prof. Xiaoguang Xu  
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- Prof. Guoxiang Wang  
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