

Curriculum Vitae

Kang Mei

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🎓 Xiamen University, **Ph.D. candidate** (Graduate in 2023)

🎓 University of Southern California (USA), **Visiting Scholar**

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PERSONAL DATA Birthdate: Aug 7, 1992 Hometown: An'Qing Anhui, China

RESEARCH INTERESTS

Marine biogeochemistry and earth sciences
Low-weight-molecular organic molecules
Marine microbial ecology and environment

Trace elements and heavy metals cycle
Environmental science and pollution ecology
Microbial Interactions and physiology

EDUCATION & EXPERIENCE

2021.12 – 2023.1 **Marine Environmental Biology, Dornsife College of Letters, Arts and Sciences
University of Southern California, United States**

- **Visiting Ph.D. student** (13 months)
- **Advisor:** Professor Sergio Sanudo-Wilhelmy (sanudo@usc.edu)
Assistant Professor Laura Gomez Consarnau (gomezcon@usc.edu)
- **Research project:** Laboratory Analysis, Data Arrangement, and Scientific Writing.

2019.9 – 2023.9 **College of Ocean and Earth Sciences, Xiamen University, Xiamen, China
State Key Laboratory of Marine Environmental Science, Xiamen University
(GPA: 3.56/4.0)**

- **Ph.D. candidate**, Marine Environmental Biogeochemistry (Expected June, 2023)
- **Advisor:** Professor Deli Wang (deliawang@xmu.edu.cn)
- **Research project:** Effects of microbial pigments on the diversity and functioning of marine ecosystems.

2018.6 – 2019.6 **College of the Environment and Ecology, Xiamen University, Xiamen, China
• Research assistant, Institute of Ecological Civilization**

2015.9 – 2018.6 **College of the Environment and Ecology, Xiamen University, Xiamen, China
(GPA: 3.17/4.0)**

- **Master**, Pollution Ecology
- **Advisor:** Associate Professor Jingchun Liu (jingchunliu@xmu.edu.cn)
- **Research project:** Effects of arsenic on the physiological responses of mangrove seedlings.

2011.9 – 2015.6 **College of the Ecology & Environment, Hainan Tropical Ocean University, China
(GPA: 3.46/4.0)**

- **B.A. in Ecology**
- **Advisor:** Professor Laijun Zhang (ldxyzhlj@126.com)
- **Research project:** Toxic effects and physiological responses of glyphosate on marine worm *Perinereis aibuhitensis*.

PUBLICATIONS

11. Kang Mei, et al., Stimulation of oxalate root exudate in arsenic speciation and fluctuation with phosphate and iron in anoxic mangrove sediment, *Marine Pollution Bulletin*. <https://doi.org/10.1016/j.marpolbul.2023.114823>. (IF2021 = 7.001, JCR: Q1)
10. Guirong Wu, **Kang Mei**, Caimei He, Sujuan Wang, Liling Jiang (2022). Phytoextraction and Antioxidant Defense of Mangrove Seedling (*Kandelia obovata*) to Inorganic Arsenate Exposure. *Water*, <https://doi.org/10.3390/w14040643>. (IF2022 = 3.530, JCR: Q2)
9. Yitong Pan, Deli Wang, **Kang Mei**, Tian Tang (2022). Optimization modeling and mechanism discussion on specific industrial coal-washing wastewater treatment. *International journal of Environmental Science*, <https://doi.org/10.1007/s13762-022-04738-z>. (IF2022 = 3.519, JCR: Q3)
8. Lide Gu, Xinli Yue, Haowen Zhong, **Mei Kang**, Deli Wang (2022). A new technique of quantifying protoporphyrin IX in microbial cells in seawater, *Frontiers in Marine Science*, <https://doi.org/10.3389/fmars.2022.991126>. (IF2022 = 5.247, JCR: Q1)
7. Zhenli Guo, Jingchun Liu, jiajia Wu, Dan Yang, **Kang Mei**, Hanyi Li, Haoliang Lu, Chongling Yan. (2022). Spatial heterogeneity in chemical composition and stability of glomalin-related soil protein in the coastal wetlands, *Science of the total environment*, <https://doi.org/10.1016/j.scitotenv.2022.155351>. (IF2022 = 10.753, JCR: Q1)
6. **Kang Mei**, Deli Wang, Yan Jiang, Mengqiu Shi, Chen-Tung Arthur Chen, Yao Zhang, Kai Tang. (2022). Transformation, Fluxes and Impacts of Dissolved Metals from Shallow Water Hydrothermal Vents on Nearby Ecosystem Offshore of Kueishantao (NE Taiwan), *Sustainability*, <https://doi.org/10.3390/su14031754>. (IF2022 = 5.247, JCR: Q2)
5. **Kang Mei**, Wu, G., Liu, J., jiajia Wu, Hong, H., Lu, H., Yan, C. (2022). Dynamics of low-molecular-weight organic acids for the extraction and sequestration of arsenic species and heavy metals using mangrove sediments, *Chemosphere*, <https://doi.org/10.1016/j.chemosphere.2021.131820>. (IF2022 = 8.943, JCR: Q1)
4. **Kang Mei**, Jingchun Liu, Jin Fan, Xin Guo, Yi Zhou, Haoliang Lu, Chongling Yan. (2021). Low-level arsenite boosts rhizospheric exudation of low-molecular-weight organic acids from mangrove seedlings (*Avicennia marina*): Arsenic phytoextraction, removal, and detoxification. *Science of the total environment*. 775, 145685. <https://doi.org/10.1016/j.scitotenv.2021.145685>. (IF2021 = 10.753, JCR: Q1)
3. **Kang Mei**, Jingchun Liu, Rongrong Shi, Xin Guo, Haoliang Lu, Chongling Yan. (2020). The migrated behavior and bioavailability of arsenic in mangrove sediments affected by pH and organic acids. *Marine Pollution Bulletin*, 159, 111480. <https://doi.org/10.1016/j.marpolbul.2020.111480>. (IF2021 = 7.001, JCR: Q1)
2. Laijun Zhang, Jingfen Jia, **Kang Mei**, Deli Lin. (2015). Defend effects of melatonin on protoplasts of gentiana macrophylla under UV-B irradiation. *Journal of Nuclear Agricultural Sciences*, 29(5): 0830-0835. (In Chinese with English abstract)
1. Laijun Zhang, Jingfen Jia, Fengqin Wang, **Kang Mei** (2015). Effect of exogenous melatonin on the growth of in vitro cultured *Polygonum cuspidatum* [J]. *Jiangsu Agricultural Sciences*, 43(8): 58-60. (In Chinese)

PATENT

Kang Mei, Mengqiu Shi, Deli Wang. (2021). Method for detecting biopterin in marine water body. China Patent CN111505179B (In Chinese).

ONGOING PUBLICATIONS

1. **Kang Mei**, et al. Dynamics of seasonal microbial biopterin in estuarine and coastal waters, Southeast China. Submitted to **Marine Chemistry** (*Under Review*)
2. **Kang Mei**, et al. Geochemical responses of dissolved Mn and Cu metals to anthropogenic perturbation in a subtropical estuary, South China. Submitted to **Environmental Science and Pollution Research** (*Under Review*)
3. **Kang Mei**, et al. Dynamic effects and mechanism of microbial pterins and trace metals as bioindicator in offshore elevated CO₂ mesocosm, South China. (*In preparation*)
4. **Kang Mei**, et al. Spatial-temporal distribution and source of regulation of microbial pteridines in the euphotic layer of South China Sea. (*In preparation*)

AWARDS & HONORS

- ☐ **Merit Student Honors**. Xiamen university, 2023.
- ☐ **ICBC (Industrial and Commercial Bank of China) Scholarship Awards**. Xiamen university, 2023.
- ☐ **Scholarship for Studying Abroad**. China Scholarship Council, China, 2022.
- ☐ **National Award for Distinguished Ph.D. Student**. Ministry of Education, China, 2021.
- ☐ **Mindu International Bank Scholarship Awards**. Xiamen university, 2021.
- ☐ **First Prize in Provincial College Challenge Cup Competition**. Fujian Province, 2021.
- ☐ **First-class Scholarship Awards**. Xiamen university, 2019-2023.
- ☐ **Excellence Merit Student Honors**. Xiamen university, 2020.
- ☐ **Zhongtian Ocean Scholarship Awards**. Xiamen university, 2020.
- ☐ **Provincial Excellent Summer Social Practice Team**, Fujian Province. 2020.
- ☐ **Team Runner-up of Golf tournament**, Xiamen university, 2020.
- ☐ **First Prize of Ocean Cultural and Creative Competition**. Xiamen university, 2019.
- ☐ **Third Place in Cross-Fitness Competition**. Xiamen university, 2019.
- ☐ **First-class Scholarship Awards**. Xiamen university, 2015-2018.
- ☐ **Second-class Scholarship Awards**, Hainan tropical ocean university, 2012&2014
- ☐ **Merit Student Honors**, Hainan tropical ocean university, 2012&2014

ORAL PRESENTATION & POSTER

7. Kang Mei, Spatial-temporal distribution and source of regulation of microbial pteridines in the euphotic layer of South China Sea. The CESS 2023, July 2023. Shanghai, China. (Poster)
6. Kang Mei, Novel indicator of biopterin to interactions and perturbations associated with trace metals in estuarine and coastal waters, Southeast China. The 14th UCAS Symposium, March 2022. Taiwan, China (online oral presentation).
5. Kang Mei, Mengqiu Shi, Deli Wang. Heavy metal migration, fluxes and potential impacts of submarine hydrothermal ecosystem offshore Kueishantao Islet, Taiwan. The CESS 2023, July 2021. Shanghai, China. (Poster)
4. Kang Mei, Mengqiu Shi, Deli Wang. Analysis of pivotal metabolic precursor-pterins in marine phytoplankton and bacteria. The 7th Symposium on Biological and Organic Geochemistry, October 2020. Beijing, China. (Oral presentation)
3. Kang Mei, Mengqiu Shi, Deli Wang. Development of analyzing pivotal metabolic precursor-pterins in the ocean. The Fifth MEL Graduate Forum, Xiamen University. August 2020. Zhangzhou, China. (Oral presentation)
2. Kang Mei, Mengqiu Shi, Deli Wang. A new method of measuring biopterin in phytoplankton and bacteria. Identification of biopterin – a key biological metabolic precursor in marine microbes. The First Marine Biological Science and Technology Graduate Forum, Xiamen University. November 2019. Xiamen, China. (Oral presentation)
1. Kang Mei, Mengqiu Shi, Deli Wang. A new method of measuring microbial biopterin in fresher water and coastal sea. Annual Session of MEL, Xiamen University. November 2020. Quanzhou, China. (Poster)