Curriculum Vitae

Kang Mei, PhD

Recruited Associate Professor at **Jiangsu Ocean University**

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Xiamen University, Doctor of Philosophy (2023)

University of Southern California US, Visiting Scholar (2022)

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Research Gate : https://www.researchgate.net/profile/Kang-Mei

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PERSONAL DATA

Birthdate: Aug. 1992 Hometown: Tongcheng Anhui, China

RESEARCH INTERESTS

Coastal & Wetland Ecology

Trace elements and heavy metals cycle

Low-weight-molecular organic molecules

Environmental science and pollution ecology

Marine microbial ecology and environment

Marine biogeochemistry and earth sciences

EDUCATION & EXPERIENCES

2024.1– **Present** **Assisitant Professor, Jiangsu Ocean University**
•Jiangsu Institute of Marine Resources Development & Jiangsu Key Laboratory of Marine Bioresources and Environment, Jiangsu Ocean University, Lianyungang, China

2019.9 – 2023.12 **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 (deliwang@xmu.edu.cn)
•**Research project:** Effects of microbial pigments on the diversity and functioning of marine ecosystems.

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.

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

14. Uddin, Mohammad Mazbah, **Kang Mei,** Bin Xie, Li Cunlu, Shengxing Long, and Fuliu Xu. (2024). How Does Mangrove Restoration or Reforestation Change Trace Metal Pollution in Mangrove Ecosystems? A Review of Current Knowledge. ***Toxics.*** 12(11), 812. https://doi.org/10.3390/toxics12110812. (IF2024 =4.2, JCR: Q2)

13. Xiaoyu Zhao, Lizhe Cai, Yiyong Rao, Deyuan Yang, Xiping Zhou, Deli Wang, **Kang Mei.** (2024) Comparison of macrozoobenthic communities and environmental variables in the subtidal zones between a nearly closed bay and an open bay, ***Regional Studies in Marine Science***. https://doi.org/10.1016/j.rsma.2024.103464. (IF2024 =2.1, JCR: Q2)

12. **Kang Mei**, et al. (2024), Dynamics and geochemical responses of dissolved metals (Mn and Cu) in a subtropical estuary, China, ***Environmental Science and Pollution Research***. https://doi.org/10.1007/s11356-023-31387-7. (IF2024 =5.8, JCR: Q1)

11. **Kang Mei**, et al. (2023), 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. (IF2022 = 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)

PROJECTS

- **Kang Mei**, Research on the ecological restoration mechanism of heavy metal arsenic in salt marsh sediments mediated by rhizosphere low molecular weight organic acids, 2024-2027, Jiangsu Provincial Natural Science Foundation Youth Fund, project approved, PI.
- **Kang Mei**, Research on the spatiotemporal distribution and regulation mechanism of microbial organisms in the offshore environment, 2024 to 2028, Jiangsu Ocean University, Lianyungang Haizhou Bay Talent Program, PI.

PATENT

- **Kang Mei**, Mengqiu Shi, Deli Wang. (2021). A method for detecting biopterin in marine water body. China Patent: CN111505179B (In Chinese).
- **Kang Mei** et, al. (2024). A method for detecting 5-aminolevulinic acid in red tide seawaters. China Patent (In Chinese), Into Review Stages.
- **Kang Mei** et, al. (2024). A method for the detection of multiple microbial pterins simultaneously in marine algal blooms (In Chinese), Into Review Stages.

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. Microbial pterins indicating organic carbon accumulation and degradability in estuarine and coastal sediments. ***Catena*** (*Under Review*)
3. **Kang Mei**, et al. Microbial pterin biomolecules facilitate algal blooms in response to nutrient pressure in estuarine and coastal continuum. ***Marine PollutionBulletin*** (*Under Review*)
4. **Kang Mei**, et al. Impact of Elevated CO_2 on Microbial Pterins as Marine Biomarkers and Trace Metal Dynamics in Offshore Mesocosms. (***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

8. Kang Mei, Spatial-temporal Distribution and Regulatory Mechanism of Novel Biomarker Microbial Pterins in Xiamen Bay, China. The 15th UCAS Symposium, October 2023. Hong Kong, China (**Oral presentation**).

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**)