MOGE DU

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EDUCATION

Xiamen University (XMU) Xiamen, China
Ph. D. *in Marine Chemistry* *Sep. 2017 – Dec. 2023*

- ***Thesis:*** *Modelling the Active Nitrogen in the Oligotrophic Upper Ocean*
- ***Paper:*** *Ecological niche of autotrophs dictates the nitrogen recycling structure in oligotrophic ocean (preparing to submit)*
- ***Advisor:*** *Shuh-Ji Kao*

Xiamen University (XMU) Xiamen, China
Master of Science *in Marine Chemistry* *Sep. 2015 – Jun. 2017*

- ***Paper:*** Hydrographic Proxies for Submarine Groundwater Discharge in the Jiulong River Estuary and Global Perspectives *Water Research doi: 10.1016/j.watres.2024.121854*
- ***Advisor:*** *Guizhi Wang*

Anhui Normal University (ANU) Wuhu, China
Bachelor of Science *in Environmental Science* *Sep. 2010 – Jun. 2014*

- ***Thesis:*** Engineering Design of a Multi-Functional Waste Gas Treatment Device
- Won the Spiritual Civilization Award in the Anhui Normal University (March, 2014)

RESEARCH INTEREST

Nitrogen Cycling, Coupled model of biogeochemistry and ecosystem, Nitrous oxide modelling, Microbial Community Interaction under climate change, Statistics.

PUBLICATIONS

• **Moge Du**, Shilei Jin, Siqi Wu, Yanling Liao, Guizhi Wang*.
Hydrographic Proxies for Submarine Groundwater Discharge in the Jiulong River Estuary and Global Perspectives. ***Water Research***, *2024. https://10.1016/j.watres.2024.121854*

• **Moge Du**, Xianhui Sean Wan, Siqi Wu, Liuqian Yu, Min Nina Xu, Shuh-ji Kao*, Huade Zhao*.
Ecological niche of autotrophs dictates the nitrogen recycling structure in oligotrophic ocean. (Preparing to submit to ***Nature Geoscience***)

• Tan Ehui, Wenbin Zou, Zhenzhen Zheng, Xiuli Yan, **Moge Du**, Ting-Chang Hsu, Li Tian, Jack J. Middelburg, Thomas W. Trull and Shuh-ji Kao*. **Warming stimulates sediment denitrification at the expense of anaerobic ammonium oxidation.** ***Nature Climate Change, 2020.*** *https://doi.org/10.1038/s41558-020-0723-2*.
Contribution: Statistical analysis of data

• Min Nina Xu, Yanhua Wu, Xiao Zhang, Jin-Ming Tang, Ehui Tan, Zhen-Zhen Zheng, **Moge Du**, Xiuli Yan, Shuh-Ji Kao*.
Diel change in inorganic nitrogenous nutrient dynamics and associated oxygen stoichiometry along the Pearl River Estuary. ***Water Research, 2022***. *https://doi.org/10.1016/j.watres.2022.118954*.
Contribution: Referenced data collection, Statistical analysis of data

• Hongyan Bao, Jutta Niggemann, **Moge Du**, Weiqiang Zhao, Dekun Huang, Yuanbi Yi, Jin-Yu Terence Yang, Thorsten Dittmar, Shuh-Ji Kao*
Deciphering sources and processing of dissolved black carbon in coastal seas. ***Limnol Oceanogr, 2023.*** *https://doi.org/10.1002/lno.12442.*
Contribution: Endmember mixing and Error propagation calculation, Figure plot

ADDITIONAL INFORMATION

- **Language/Software:** Fortran, MATLAB, Origin, Ocean Data View
- **Major Scientific Skills:** Data Analysis, Parameterization of biogeochemical process
- During *Jul. 2014 – Sep. 2015*, preparing for the graduate school entrance examination

INTERNATIONAL CONFERENCE EXPERIENCE:

- **AOGS, Beijing, China. *Jul. 2016***

Oral: Tracing temporal variations of Submarine Groundwater Discharge in Jiulong River estuary using Ra isotopes

- **Goldschmidt, Paris, France. *Aug. 2017***

Oral: Intra-Annual Variation of Submarine Groundwater Discharge in the Jiulong River Estuary Revealed by ^{223}Ra and ^{224}Ra

- **The First Hong Kong-Macau Forum, Macau, China. *Nov. 2022***

Oral: Physiological Traits Determine the Niche Partition of Autotrophs in the Upper Ocean

- Member of Student Committee of the Fifth Xiamen Symposium on Marine Environmental Science (XMAS-V): Collaborating with other members to promote student activities.

Major courses in Mater and PhD

Chemical oceanography, Biogeochemical cycles, Microbial Community Interaction under climate change, Statistics.