Mengfan Chu

Email: chumengfan@ouc.edu.cn
ORCID: https://orcid.org/0000-0001-7369-518X

ACADEMIC POSITIONS

Postdoctoral Researcher, Ocean University of China 2025 – present
Advisor: Rui Bao

Research Assistant, Ocean University of China 2020 – 2021

EDUCATION

Ph.D. in Marine Chemistry, Ocean University of China 2021 – 2025
Advisor: Rui Bao

Visiting Student, MARUM, University of Bremen 2024
Co-host: Matthias Zabel, Achim Kopf

M.Sc. in Marine Chemistry, Ocean University of China 2017 – 2020
Advisor: Meixun Zhao

Visiting Student, Xiamen University 2015 – 2016

B.S. in Marine Chemistry, Ocean University of China 2013 – 2017

PUBLICATIONS

[1] **Chu, M.**, Liu, K., Cai, Z., et al., (2026). Sediment-modulated seafloor residence time controls efficient organic carbon burial in subduction zones. ***Nature Communications,*** 17, 5834. DOI: 10.1038/s41467-026-72049-9. (featured in **Editor's Highlight**)

[2] **Chu, M.**, Bao, R.*, Strasser, M., et al., (2025). Removal of dissolved organic carbon in the West Pacific hadal zones. ***Nature Communications,*** 16, 733. DOI: 10.1038/s41467-025-55883-1.

[3] Pizer C., **Chu, M.**, Jitsuno K., et al., (2024). IODP Expedition 386 discovers earthquake-enhanced carbon cycling in the ultra-deep-water Japan Trench. ***Past Global Changes Magazine***, 32(2), 94–95. DOI: 10.22498/pages.32.2.94.

[4] **Chu, M.**, Bao, R.*, Strasser, M., et al. (2023). Earthquake-enhanced dissolved carbon cycles in ultra-deep ocean sediments. ***Nature Communications***, 14, 5427. DOI: 10.1038/s41467-023-41116-w.

[5] **Chu, M.**, Liu, J., Li, H., et al. (2023). Earthquake-induced redistribution and reburial of microbes in the hadal trenches. ***The Innovation Geoscience,*** 1(2), 100027. DOI: 10.59717/j.xinn-geo.2023.100027.

[6] **Chu, M.**, Sachs, J. P., Peng, P., et al. (2023). Temporal variations of mangrove-derived organic carbon storage in two tropical estuaries in Hainan, China since 1960 CE. ***Palaeogeography, Palaeoclimatology, Palaeoecology***, 627, 111726. DOI: 10.1016/j.palaeo.2023.111726.

[7] **Chu, M.**, Bao, R.* (2022). A note: Radiocarbon data comparison of small gaseous samples measured by two MICADAS at ETH ZURICH and Ocean University of China. ***Radiocarbon***, 65(1), 299–304. DOI: 10.1017/RDC.2022.90.

[8] **Chu, M.**, Zhao, M., Eglinton, T. I., & Bao, R.* (2022). Differentiating the causes of aged organic carbon in marine sediments. ***Geophysical Research Letters***, 49, e2021GL096912. DOI: 10.1029/2021GL096912.

[9] **Chu, M.**, Sachs, J. P., Zhang, H. L., et al. (2020). Spatiotemporal variations of organic matter

sources in two mangrove-fringed estuaries in Hainan, China. ***Organic Geochemistry***, 147, 104066. DOI: 10.1016/j.orggeochem.2020.104066.

[10] Ma, L., **Chu, M.**, & Bao, R.* (2025). Gas hydrate decomposition, methane conversion and burial of methane-derived carbon in the South China Sea. ***Bulletin of Geological Science and Technology***, 2025, 44(6): 281-291. (*in Chinese*) DOI:10.19509/j.cnki.dzkq.tb20230591.

[11] **Chu, M.**, Xiao, X., Ding, Y. & Zhao, M.* (2021). Sediment organic matter sources and carbon stock associated with a mangrove reserve in Danzhou Bay, Hainan, China. ***Marine Sciences***, 45(2), 22–31. (*in Chinese*) DOI: 10.11759/hykx20200215001.

AWARDS & GRANTS

National Natural Science Foundation of China (NSFC) Young Scientists Fund (No. 42606053), RMB 300,000, 2027 – 2029

China Postdoctoral Science Foundation Fellowship (No. 2025M780835), RMB 80,000, 2026 – 2029

China National Postdoctoral Program for Innovative Talent, 2026

Qingdao Postdoctoral Innovation Project Funding, (No. QDBSH20260102033), RMB 50,000, 2026

The Innovation Geoscience Award, 2026

Fundamental Research Funds for the Central Universities (No. 202461018), RMB 30,000, 2023 – 2025

PROFESSIONAL ACTIVITIES

Youth editorial board member of *The Innovation Geoscience* (since 2025) and *Journal of Marine Sciences* (since 2026)

Authored a chapter in book: *Encyclopedia for High-Tech Whys* (Vol. 2), Guangdong Science and Technology Press (2025)

Invited panelist for the 11th Postgraduate Symposium of Ocean University of China (2024)

Science outreach speaker for the Chemistry Open Day at Ocean University of China (2021, 2023)

FIELD EXPEDITIONS

National Ocean Research Campaign 582 (West Pacific), R/V *Dongfanghong3* (2021)

Expedition in Greenland Sea and Norwegian Sea, R/V *STALBAS (*2018)

Expedition in Bamen Bay and Danzhou Bay Mangrove Reserves in Hainan, China (2016)

CONFERENCES

3rd International Conference on Biology, Geology and Environment of Hadal Trenches (Sanya, China), poster (2025)

IODP Expedition 386 Stratigraphy Meeting (Innsbruck, Austria), oral presentation (2024)

9th Bio-Organic Geochemistry Conference (Shenzhen, China), oral presentation (2023)

7th Conference on Earth System Science (Shanghai, China), oral presentation (2023)

71st Lindau Nobel Laureate Meeting (online), young scientist representative (2022)

Met and exchanged ideas with up to 34 Nobel Laureates

Invited Nobel Laureate Prof. Martin Chalfie to deliver a talk at home university