

CURRICULUM VITAE
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Education

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| 2007 — present | Department of Marine Sciences and Convergent Technology, Hanyang University, Korea (Ph.D Candidate) |
| 1998 — 2001 | Department of Marine Science, Pusan National University, Korea (M.S.) |
| 1994 — 1998 | Department of Marine Science, Pusan National University, Korea (B.S.) |

Research interests

- Iron, manganese, sulfur and phosphorus cycling in marine sediments
- Rates and pathways of carbon oxidation (Iron/Manganese/Sulfate reduction) and its controls

Peer-reviewed publication

- 11) **Mok J-S**, Choi A, Kim B, An S-U, Lee W-C, Kim J, Yoon C, Hyun J-H. Phosphorus dynamics associated with iron- and sulfate reduction in the sediment exposed to fish farming. *Marine Pollution Bulletin* (submitted), (IF: 3.782, 4.17% in Marine & Freshwater Biology).
- 10) Choi A, Kim B, **Mok J-S**, Yoo J, Kim J-B, Lee W-C, Hyun J-H. (2019) Impact of finfish aquaculture on biogeochemical processes in coastal ecosystem and elemental sulfur as a relevant proxy for assessing farming condition. *Marine Pollution Bulletin* <https://doi.org/10.1016/j.marpolbul.2019.110635>. (IF: 3.782, 4.17% in Marine & Freshwater Biology)
- 9) Cho H, Kim B, **Mok J-S**, Choi A, Thamdrup B, Hyun J-H (2019) Acetate-utilizing microbial communities revealed by stable-isotope probing in sediment underlying the upwelling system of the Ulleung Basin, East Sea. *Marine Ecology Progress Series* (in revision), (IF: 2.359, 27.3% in Marine & Freshwater Biology).
- 8) **Mok S-J**, Kim S-H, Kim J, Cho H, An S-U, Choi A, Kim B, Yoon C-H, Thamdrup B, Hyun J-H (2019) Impacts of typhoon-induced heavy rainfalls and resultant freshwater runoff on the partitioning of organic carbon oxidation and nutrient dynamics in the intertidal sediments of the Han River estuary, Yellow Sea. *Science of the Total Environment*. 691: 858-867, (IF: 5.589, 10.6% in Environmental Sciences).
- 7) An S-U, **Mok J-S**, Kim S-H, Choi J-H, Hyun J-H (2019) A large artificial dyke greatly alters partitioning of sulfate and iron reduction and resultant phosphorus dynamics in sediments of the Yeongsan River estuary, Yellow Sea. *Science of the Total Environment*. 665: 752-761, (IF: 5.589, 10.6% in Environmental Sciences).

- 6) Hyun J-H, Kim S-H, **Mok J-S**, Cho H, Lee T, Vandieken V and Thamdrup B (2017) Manganese and iron reduction dominate organic carbon oxidation in surface sediments of the deep Ulleung Basin, East Sea. *Biogeosciences*. 14(4): 941-958, (IF: 3.951, 14.5% in Geosciences).
- 5) Hyun J-H, Kim S-H, **Mok J-S**, Lee JS, An S-U, Lee W-C, Jung R-H (2013) Impacts of long-line aquaculture of Pacific oysters (*Crassostrea gigas*) on sulfate reduction and diffusive nutrient flux in the coastal sediments of Jinha-Tongyeong, Korea. *Marine Pollution Bulletin* 74:187-198, (IF: 3.782, 4.17% in Marine & Freshwater Biology).
- 4) Hyun J-H, **Mok J-S**, You O-R, Kim D. Choi DL (2010) Variations and controls of sulfate reduction in the continental slope and rise of the Ulleung basin off the southeast Korean upwelling system in the East Sea. *Geomicrobiology Journal*. 27: 1-11, (IF: 1.609, 65.6% in Geosciences).
- 3) Hyun J-H, Kim D, Shin C-W, Noh J-H, Yang E-J, **Mok J-S**, Kim S-H, Kim H-C, Yoo S (2009) Enhanced production of phytoplankton and bacterioplankton coupled to a coastal upwelling and an anticyclonic eddy in the Ulleung basin, East Sea. *Aquatic Microbial Ecology*. 54: 45-54, (IF: 2.788, 17.1% in Marine & Freshwater Biology).
- 2) Hyun J-H, **Mok J-S**, Cho H-Y, Kim S-H, Kostka JE (2009) Rapid organic matter mineralization coupled to iron cycling in intertidal mud flats of the Han River estuary, Yellow Sea. *Biogeochemistry*. 92: 231-245, (IF: 3.406, 21.7% in Geosciences)..
- 1) Lee T, Hyun J-H, **Mok J-S**, Kim D (2008) Organic carbon accumulation and sulfate reduction rates in slope and basin sediments of the Ulleung Basin, East/Japan Sea. *Geo-Marine Letters* 28:153–159, (IF: 1.940).

Publications in Domestic Journals (In Korean)

- 4) You O-R, **Mok J-S**, Kim S-H, Choi D-L, Hyun J-H (2010) Comparison of sulfate reduction rates associated with geochemical characteristics at the continental slope and basin sediments in the Ulleung Basin, East Sea. *Ocean and Polar Research*. 32: 299-307
- 3) Kim SH, **Mok J-S**, Jeong, JH, Chang YY, Choi KS, Hyun J-H (2007) Rates and pathways of anaerobic mineralization of organic matter at highly stagnant freshwater wetland and its comparison to frequently flushed coastal wetland. *J. Korean Wetland Society*. 9: 1-11.
- 2) **Mok J-S**, Cho HY, Hyun J-H (2005) Rates of anaerobic carbon mineralization and sulfate reduction in association with bioturbation in the intertidal mudflat of Ganghwa, Korea. *(The Sea) J. Korean Society of Oceanography*. 10: 38-46.
- 1) Hyun J-H, **Mok J-S**, Cho HY, Cho BC, Choi JK (2004) Anaerobic mineralization of organic matter and sulfate reduction in summer at Ganghwa intertidal flat, Korea. *J. Korean Wetland Society*. 6: 117-132.

Manuscript in preparation to be submitted

- 2) **Mok J-S**, Goldhammer T, Ferdelman T, Kim J, Hyun J-H. Phosphorus burial in the ultra-oligotrophic South Pacific Gyre (in preparation).

- 1) **Mok J-S**, Kim B, Kim SH, Cho HY, Kim J, Hyun J-H. Phosphorus dynamics associated with organic matter mineralization in the surface sediments of the deep Ulleung Basin, East Sea (in preparation).

Conference presentation

- 8) Goldschmidt conference (2016) "Impact of rainfall on the rates and pathways of organic carbon oxidation in the intertidal sediments of the Han River estuary, Yellow Sea" Poster.
- 7) The Korean Society of Oceanography (2015) "Distribution of phosphorus in the deep sediments of Ulleung Basin in the East Sea". Poster.
- 6) The Korean Society of Oceanography (2015) "Impact of rainfall on biogeochemical cycles in the intertidal sediments of the Han River estuary, Yellow Sea". Oral.
- 5) The Korean Society of Oceanography (2013) "Distribution of phosphorus in the deep subseafloor sediments of the South Pacific Gyre". Poster.
- 4) International Symposium on Ecohydraulics (2010). "Effects of Heavy Rainfall on the Rates and Pathways of Carbon Oxidation in the Intertidal Mudflat of Ganghwa, Yellow Sea". Oral.
- 3) The Korean Society of Oceanography. (2008) "Distribution of geochemical constituents in the deep sediments of Ulleung Basin in the East Sea – Potential importance of Manganese reduction". Poster.
- 2) The Korean Society of Oceanography. (2007) "Variations on the rates and pathways of organic carbon oxidation by summer heavy rainfall in the intertidal sediments of the Ganghwa, Korea". Oral.
- 1) The Korean Society of Oceanography. (2004) "Rates of anaerobic carbon mineralization and sulfate reduction in association with bioturbation in the intertidal mudflat of Ganghwa, Korea". Poster.