

# Hyo-Bang Moon

- 2019 [연구우수교수](#)

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## Profile

- 2020~2024: Review Committee, Stockholm Convention, UNEP
- 2018~ present: Executive Committee Member, Polar Environment and Ecosystem, Chinese Society for Environmental Science, Harbin Institute of Technology, China
- 2015~present, Associate Editor, Ecotoxicology and Environmental Safety, Elsevier
- 2015~ present, Editorial Board, Chemosphere(SCI), Emerging Contaminants, Bulletin of Environmental Contamination and Toxicology, Data in Brief
- 2010~Present, Professor of Hanyang University Department of Marine Science and Convergence Engineering
- 2005~2006, Visiting Scientist, U.S. Health Research, Inc. / State University of New York
- 2003, Doctor of Science, Pukyong National University Department of Earth and Environmental Sciences
- 2002~2014, National Expert, NOWPAP, YSLME, PICES
- 1999~2010, Senior Researcher, Environment Research Department of National Institute of Fisheries Science

## Research Topics

### Environmental Pollution of POPs and EDCs

- Environmental monitoring of POPs and EDCs
- Environmental fate of emerging contaminants
- Monitoring of emerging contaminants in Arctic and Antarctic environments

## Ecological risk assessment (ERA) study: Wildlife Ecotoxicology

- Biomonitoring of POPs and EDCs in wildlife (e.g., marine mammals & birds)
- Biomagnification of POPs and EDCs in food-web ecosystem
- Understanding the bioaccumulation process of emerging contaminants

## Human risk assessment (HRA) study: Birth Cohort

- Biomonitoring of POPs and EDCs in human fluids (e.g., urine & serum)
- Exposure assessment of emerging contaminants via multiple exposure pathways
- Development of new biomonitoring tool for human-derived matrices

## Study on analytical method of emerging contaminants

- Development of new analytical method of emerging contaminants
- Non-target screening analysis (NTSA) using GC/Q-TOF
- Prioritization of emerging contaminants in environment and humans

## Papers

- “Accumulation and time trends (2003-2015) of persistent organic pollutants (POPs) in blubber of finless porpoises (*Neophocaena asiaeorientalis*) from Korean coastal waters”, *Journal of Hazardous Materials*, 2020  
<https://www.sciencedirect.com/science/article/pii/S0304389419315523>
- “Organophosphate esters in indoor dust from 12 countries: Concentrations, composition profiles, and human exposure”, *Environment International*, 2019  
<https://www.sciencedirect.com/science/article/pii/S0160412019324493>
- “Optimization of suspect and non-target analytical methods using GC/TOF for prioritization of emerging contaminants in the Arctic environment”, *Ecotoxicology and Environmental Safety*, 2019 <https://www.sciencedirect.com/science/article/pii/S0147651319306116>
- “Tissue-specific accumulation and body burden of parabens and their metabolites in small cetaceans”, *Environmental Science & Technology*, 2019  
<https://pubs.acs.org/doi/abs/10.1021/acs.est.8b04670>
- “Prenatal exposure to persistent organic pollutants and methylation of LINE-1 and imprinted genes in placenta: a CHECK cohort study”, *Environment International*, 2018  
<https://www.sciencedirect.com/science/article/pii/S0160412018300618>
- “An optimized method for the analysis of cyclic and linear siloxanes and their distribution in surface and core sediments from industrialized bays of Korea”, *Environmental Pollution*, 2018  
<https://www.sciencedirect.com/science/article/pii/S026974911734157X>
- “Historical trends of perfluoroalkyl substances (PFASs) in dated sediments from semi-enclosed bays of Korea”, *Marine Pollution Bulletin*, 2018  
<https://www.sciencedirect.com/science/article/pii/S0025326X1830050X>
- “Species-specific accumulation of polybrominated diphenyl ethers (PBDEs) and other emerging flame retardants in several species of birds from Korea”, *Environmental Pollution*, 2016 <https://www.sciencedirect.com/science/article/pii/S0269749116307825>
- “Occurrence and exposure assessment of organophosphate flame retardants (OPFRs) through the consumption of drinking water in Korea”, *Water Research*, 2016  
<https://www.sciencedirect.com/science/article/pii/S0043135416305462>

- “Occurrence and prenatal exposure to persistent organic pollutants using meconium in Korea: Feasibility of meconium as a non-invasive human matrix”, Environmental Research, 2016 <https://www.sciencedirect.com/science/article/pii/S0013935116300329>
- “Synthetic musk compounds and benzotriazole ultraviolet stabilizers in breast milk: Occurrence, time-course variation and infant health risk”, Environmental Research, 2015 <https://www.sciencedirect.com/science/article/pii/S0013935115001346>

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