



# KWANG MO YANG

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## PROFESSIONAL APPOINTMENT

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**Foreign Expert Level 3** 2025  
ASEAN Institute for Health Development, Mahidol University

## EDUCATION

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**Ph.D. in Biology** 2022  
Department of Biology, Faculty of Science, Mahidol University, Thailand

**M.Sc. in Environmental Biology** 2018  
Department of Biology, Faculty of Science, Mahidol University, Thailand

**B.Sc. in Biological Science** 2015  
Mahidol University International College, Thailand

## EXPERTISE / AREAS OF RESEARCH INTEREST

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- Phytoremediation and bioremediation of contaminated soil
- Environmental Toxicology
- Medicinal plants

## WORKING AND RESEARCH EXPERIENCE

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**Post-doctoral Researcher** 2024-2025  
Center of Excellence on Environmental Health and Toxicology (EHT), Thailand

**Research Assistant** 2018-2022

- “Phytoremediation of petroleum hydrocarbons” - Funded by EHT
- “Environmental monitoring in MapTaPhut Industrial Estate” - Funded by EHT
- “Phytoremediation of E-waste contaminated soil” - Funded by EHT
- “Biosensor Project” - Funded by National Research Council of Thailand (NRCT)
- “EarthEnzyme Project” - Funded by Earthologygroup

## PUBLICATIONS LIST

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- Choden P, Poolpak T, Pokethitiyook P, **Yang KM**, Kruatrachue M (2025). In situ bioaugmented phytoremediation of cadmium and crude oil co-contaminated soil by *Ocimum gratissimum* in association with PGPR *Micrococcus luteus* WN01. *Int J Phytoremediation*, 27(3): 298-306.
- Buranasudja V, Sanookpan K, Vimolmangkang S, Binalee A, Mika K, Krobthong S, Kerdsomboon K, Kumkate S, Poolpak T, Kidhakarn S, **Yang KM**, Limcharoensuk T, and Auesukaree C. 2024. Pretreatment with aqueous *Moringa oleifera* Lam. leaf extract prevents cadmium-induced hepatotoxicity by improving cellular antioxidant machinery and reducing cadmium accumulation. *Heliyon*. 10 (18): e37424
- Joradon P, Poolpak T, Kruatrachue M, **Yang KM**, Saengwilai P, Upatham S, Pokethitiyook P. 2024. Phytoremediation technology for recovery of Ni by *Acacia* plants in association with *Bacillus amyloliquefaciens* isolated from E-waste contaminated site. *Int J Phytoremediation*. 26(6): 903-912.
- **Yang KM**, Poolpak T, Pokethitiyook P, Kruatrachue M. 2024 Risk assessment and biodegradation potential of PAHs originating from Map Ta Phut industrial estate, Rayong, Thailand. *Environ Technol*. 45(12), 2348–2362.
- Manan A, Roytrakul S, Charoenlappanit S, Poolpak T, Ounjai P, Kruatrachue M, **Yang KM**, and Pokethitiyook P. 2023. Glyphosate metabolism in *Tetrahymena thermophila*: a shotgun proteomic analysis approach. *Environ Toxicol*. 38(4): 867- 882.
- **Yang KM**, Poolpak T, Pokethitiyook P, Kruatrachue M. 2022. Assessment of dynamic microbial community structure and rhizosphere interactions during bioaugmented phytoremediation of petroleum contaminated soil by a newly designed rhizobox system. *Int J Phytoremediation*. 24(14): 1505-1517.
- **Yang KM**, Poolpak T, Pokethitiyook P. 2022. The effect of LDPE microplastics on soil metabolic activities and microbial community profile. *EnvironmentAsia (Special Issue)*. 15: 10-16 8.
- **Yang KM**, Poolpak T, Pokethitiyook P, Kruatrachue M, Saengwilai P. 2022. Responses of oil degrader enzyme activities, metabolism and degradation kinetics to bean root exudates during rhizoremediation of crude oil contaminated soil. *Int J Phytoremediation*. 24(1): 101-109.

## BOOKS/CHAPTERS

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- **Yang KM**, Poolpak T, Pokethitiyook P. (2023). Rhizodegradation: The Plant Root Exudate and Microbial Community Relationship. In: Newman L, Ansari A A, Gill S S, Naeem M, Gill R (eds) *Phytoremediation*. Springer, Cham. doi:10.1007/978-3-031-17988-4\_11

## CONFERENCE

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### Conference Oral Presentation

- **Yang KM**, Poolpak T, Pokethitiyook P. (2021) The effect of LDPE microplastics on soil metabolic activities and microbial community profile, at the 6th Environment Asia Virtual International Conference, December 20-21, 2021, Thailand.
- **Yang KM**, Pokethitiyook P, Kruatrachue M, Poolpak T, Saengwilai P. The effects of leguminous root exudates on oil biodegrading bacterial species *Micrococcus luteus* WN01 in vitro, at 10th Annual conference of Center of Excellence on Environmental Health and Toxicology, November 19, 2017, Thailand

### Conference Poster Presentation

- **Yang KM**, Poolpak T, Pokethitiyook P, Kruatrachue M, Saengwilai P. Co-sequential production of essential oil and bioethanol from lemongrass biomass after phytoremediation of petroleum hydrocarbons: The waste to wealth concept, at 13th Annual conference of Center of Excellence on Environmental Health and Toxicology, October 8, 2022, Thailand
- **Yang KM**, Pokethitiyook P, Kruatrachue M, Saengwilai P, Poolpak T (2018) Mung bean and cowpea root exudates facilitate PAH degradation of *Bacillus cereus* W2301, at 11th Annual conference of Center of Excellence on Environmental Health and Toxicology, November 17, 2018, Thailand.

## AWARDS AND HONORS

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- Best oral presentation at the 6th Environment Asia Virtual International Conference, December 20-21, Thailand
- Best oral presentation at 10th Annual conference of Center of Excellence on Environmental Health and Toxicology on “Environmental Health: The Road to Thailand 4.0”, November 19, Thailand.

## OTHERS

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- Journal Reviewer for International Journal of Phytoremediation
- Topic Coordinator for Frontiers in Microbiology