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Work Experience

- 2013 – Present: Lecturer, Department of Environmental Health Sciences, Faculty of Public Health, Mahidol University
- 2003 – 2013: Lecturer, Environmental Health Program, School of Allied Health Sciences and Public Health, Walailak University

Education

- Ph.D. in Environmental Technology, Mahidol University
- M.Sc. in Environmental Technology, Mahidol University
- B.Sc. in Health Science, Thammasat University

Scholarship

1. Principal Investigator of the research project entitled “Techno-economic assessment of struvite crystallization from anaerobically treated wastewater of rice and glutinous rice starch production plants,” funded by the National Research Council of Thailand (NRCT), 2025.
2. Principal Investigator of the research project entitled “Process technology for phosphorus crystallization from food waste and dewatered fecal sludge,” funded by the National Research Council of Thailand (NRCT), 2022.
3. Principal Investigator of the research project entitled “Phosphorus management in food waste in the Bangkok Metropolitan Area,” funded by Mahidol University, 2021.

Course Taught

- **M.Sc. (Environmental Health)**
 - Applied Research Methodology in Environmental Health
- **B.Sc. (Environmental Health)**
 - Clean Technology
 - Food Sanitation
- **B.Sc. (Public Health)**
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Research Interests

- Clean technology
- Waste Utilization
- Environmental Management

Awards

- Outstanding Personnel, Faculty of Public Health, Mahidol University, 2025
- Innovative Public Health Teaching Award for outstanding educational performance, Faculty of Public Health, Mahidol University, 2025.
- Certificate of recognition for publication in a Top 10 international journal, 2022.
- MUPSF Level 2, Mahidol University.

Trainings

- Ethics in Human Research, 2025

Selected Journal Articles

- 1) Mokjatturas S, **Polprasert S**, Patthanaissaranukool W, Dereli RK, Chinwetkitvanich S. Environmental and financial assessment of phosphorus loss from food waste in academic institutions. *Glob J Environ Sci Manag*. 2025;11(4):1655–70. doi:10.22034/gjesm.2025.04.16
- 2) Khaita C, Chinwetkitvanich S, **Polprasert S**, Polprasert C, Patthanaissaranukool W. Phosphorus and bioenergy recovery from anaerobic co-digestion of food waste and corn residues with digested sludge: effect of HRT and pre-treatment methods. *Clean Technol Environ Policy*. 2024. doi:10.1007/s10098-024-02941-9
- 3) Mokjatturas S, Chinwetkitvanich S, Patthanaissaranukool W, Polprasert C, **Polprasert S**. Phosphorus mass flows and economic benefits of food waste management: the case study of selected retail and wholesale fresh markets in Thailand. *Clean Technol Environ Policy*. 2024. doi:10.1007/s10098-024-02847-6
- 4) Moungsree S, Neamhom T, **Polprasert S**, Suwannahong K, Polprasert C, Patthanaissaranukool W. Greenhouse gas emissions and carbon footprint of maize-based feed products for animal farming in Thailand. *Environ Sci Pollut Res*. 2023;31:2657–70. doi:10.1007/s11356-023-31408-5
- 5) Riewklang K, Polprasert C, Nakason K, **Polprasert S**, Kwonpongsagoon S, Mahasandana S, et al. Enhancing chemical phosphorus precipitation from tapioca starch anaerobic digestion effluent in a modified pilot-scale fluidized bed reactor. *Environ Res*. 2023;116227. doi:10.1016/j.envres.2023.116277
- 6) Patthanaissaranukool W, **Polprasert S**, Neamhom T. Carbon smart agriculture: lower carbon emissions and higher economic benefits of maize production in Thailand. *Int J Environ Sci Technol*. 2023;20(6):6003–14.
- 7) Pimpeach W, Polprasert C, Panyapinyopol B, **Polprasert S**, Mahasandana S, Patthanaissaranukool W. Enhancing anaerobic co-digestion of primary settled-nightsoil sludge and food waste for phosphorus extraction and biogas production: effect of operating parameters and determining phosphorus transformation. *Environ Sci Pollut Res*. 2023;30(9):23173–83.

- 8) Pimpeach W, Patthanaissaranukool W, Polprasert C, **Polprasert S**, Mahasandana S, Panyapinyopol B. Optimization and kinetic study of phosphorus dissolution from primary settled-nightsoil sludge. *Environ Nat Resour J*. 2023;21(12):102–12.
- 9) Yupin K, Neamhom T, Singhakant C, Sreesai S, **Polprasert S**. Color removal of pulp and paper mill wastewater using residual eucalyptus wood. *Environ Nat Resour J*. 2022. doi:10.32526/ennrj/20/202200038
- 10) Khaing KT, Polprasert C, Mahasandana S, Pimpeach W, Patthanaissaranukool W, **Polprasert S**. Phosphorus recovery and bioavailability from chemical extraction of municipal wastewater treatment's waste activated sludge: a case of Bangkok Metropolis, Thailand. *Environ Nat Resour J*. 2022. doi:10.32526/ennrj/20/202200024
- 11) Yongsri A, Neamhom T, **Polprasert S**, Singhakant C, Patthanaissaranukool W. Phosphorus flow analysis in maize cultivation: a case study in Thailand. *Environ Sci Pollut Res*. 2022. doi:10.1007/s11356-022-20145-w
- 12) Moungsree S, Neamhom T, **Polprasert S**, Patthanaissaranukool W. Carbon footprint and life cycle costing of maize production in Thailand with temporal and geographical resolutions. *Int J Life Cycle Assess*. 2022. doi:10.1007/s11367-022-02021-4

Selected Proceeding Papers

- 1) Pasavanung A, Patthanaissaranukool W, Neamhom T, **Polprasert S**. Carbon Footprint for Organization: Case Study of Printing and Packaging Factory in Thailand. In: *Proceedings of the 14th International Conference on Environmental Engineering, Science and Management*. Bangsaen Heritage Hotel, Chon Buri, Thailand, 2025 May 20-21.
- 2) Khaita C, Patthanaissaranukool W, **Polprasert S**, Chinwetkitvanich S. Effect of pre-treatment methods on phosphorus recovery from anaerobic co-digestion of food waste with digested sludge. In: Dong L, Ding Y, Liu Y, editors. *9th International Conference on Energy and Environmental Science (ICEES 2025)*. Environmental Science and Engineering. Cham: Springer; 2025.
- 3) Mokjatturas S, Chinwetkitvanich S, Patthanaissaranukool W, Polprasert C, **Polprasert S**. Assessment of phosphorus flow of canteen food waste in educational institutions in Bangkok area. *E3S Web Conf*. 2024; 530:04003.
- 4) Chareonwimonruk N, Patthanaissaranukool W, Neamhom T, **Polprasert S**. Carbon footprint in the Faculty of Public Health, Mahidol University during lockdown and non-lockdown periods. In: *Proceedings of the 4th Environment and Natural Resource International Conference (ENRIC 2021): Challenges, Innovations and Transformations for Environmental Sustainability*; 2021 Dec 16; Virtual Conference, Thailand.

Academic Research Projects and Responsibilities

1. Principal Investigator of the research project entitled “Techno-economic assessment of struvite crystallization from anaerobically treated wastewater of rice and glutinous rice starch production plants,” funded by the National Research Council of Thailand (NRCT), 2025.
2. Principal Investigator of the research project entitled “Process technology for phosphorus crystallization from food waste and dewatered fecal sludge,” funded by the National Research Council of Thailand (NRCT), 2022.
3. Principal Investigator of the research project entitled “Phosphorus management in food waste in the Bangkok Metropolitan Area,” funded by Mahidol University, 2021.