Pei (Perry) Wang

The University of Hong Kong, HW Building 229, Hong Kong, perrywwww@gmail.com

ACADEMIC POSITIONS

Postdoctoral Fellow of Water and Environment Engineering 2025-

Department of Civil Engineering, The University of Hong Kong

EDUCATION

2020-2024 PhD, Water and Environment Engineering

Department of Civil Engineering, The University of Hong Kong

2016-2019 ME, Environmental Science and Engineering

School of Environmental and Municipal Engineering，Xi'an University of Architecture & Technology

2012-2016 BE, Environmental Engineering

School of Environmental and Municipal Engineering，Xi'an University of Architecture & Technology

PUBLICATIONS

(1) Wang P., Wen L., Dong C., Lin L., Yang C., & Li, X. Y. (2024). Iron–molybdenum bimetals incorporated montmorillonite-based catalytic ceramic membrane for heterogenous Fenton reaction towards the degradation of micropollutants in water. *Chemical Engineering Journal*, 2024, 500: 156833.

(2) Yang C., Shang S., Wang P., Wang Y., Lin L. & Li, X. Y. (2024). Electro-driven cycling Fenton catalysis through the two-dimensional electroresponsive metal–organic frameworks for water purification. *Nature Water*, 2 (8), 793-802.

(3) Dong C., Wang Z., Yang C., Hu X., Wang P., Gong X., Lin L., & Li, X. Y. (2023). Dual-functional single-atomic Mo/Fe clusters–decorated C_3N_5 via three electron-pathway in oxygen reduction reaction for tandemly removing contaminants from water. *Proceedings of the National Academy of Sciences*, 2023, 120(39): e2305883120.

(4) Dong, C., Wang, Z. Q., Yang, C., Hu, X., Wang, P., Gong, X. Q., & Li, X. Y. (2023). Sequential electrocatalysis by single molybdenum atoms/clusters doped on carbon nanotubes for removing organic contaminants from wastewater. *Applied Catalysis B: Environmental*, 338, 123060.

(5) Li, P., Miao, R., Wang, P., Sun, F., & Li, X. Y. (2021). Bi-metal oxide-modified flat-sheet ceramic membranes for catalytic ozonation of organic pollutants in wastewater treatment. *Chemical Engineering Journal*, 2021, 426, 131263.

(6) Miao R., Zhou Y., Wang P., Lu W., Li P., Li X. Y., &, Wang L. (2021) A comparison of effect mechanisms of chlorination and ozonation on the interfacial forces of protein at membrane surfaces and the implications for membrane fouling control. *Journal of Membrane Science*, 2021, 628: 119266.

WORK-IN-PROGRESS

(1) A self-cleaning catalytic ceramic membrane for the efficient degradation *via* an integration of heterogeneous Fenton and membrane process.

(2) Fabrication of a novel catalytic alumina beads for the micropollutants degradation in combined adsorption and Fenton process.

(3) Life cycle assessment about novel catalytic ceramic membrane for micropollutants degradation in combined Fenton and filtration process.

(4) A Comprehensive Evaluation of Water Resources in Hong Kong Using an Integrated Framework for the Life Cycle Impacts

AWARDS AND GRANTS

2024	Outstanding Teaching Assistant, Department of Civil Engineering, HKU
2020-2024	Postgraduate Scholarship, HKU
2021	Common Core Tutor Certificate on Foundations of Teaching and Learning, HKU
2020	Certificate in Teaching and Learning in Higher Education, HKU
2017	First-class Academic scholarship, XAUAT
2016	Second-class Academic scholarship, XAUAT
2015	The second prize of the 5th National University Student Social Practice and Science Contest on Energy Saving & Emission Reduction, XAUAT

OTHER EXPERIENCES

2019-2020 Research Assistant, The University of Hong Kong

- Assisting the Principal Investigator in monitoring project implementation.
- Data collection and data analysis.
- Preparing presentations and reports.

2018 Intern, Sunac China Holdings Limited

- Assisting the R&D department of the corporation in tasks related to design.
- Assisting the management, data analysis, and organizing data.

CONFERENCES:

2024 China (Xi'an) International Water Treatment Technology and Equipment Expo; Xi'an, China.

	Advanced membrane Technology Summit for Water Treatment 2024; Beijing, China.
2023	The 6th IWA International Conference on eco-Technologies for Wastewater Treatment; Girona, Spain
2019	iEESEP Conference 2019; Monash University, Australia