

Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2021-51
Project Title:	Identification and removal of small microplastics from wastewater treatment plants in Hong Kong
Principal Investigator:	Dr Khoo Bee Luan, Department of Biomedical Engineering, City University of Hong Kong
Total Approved Grant:	\$498,000
Duration:	1/9/2022 to 31/8/2024
Project Status/Remarks:	On-going
Project Scope:	<p>The use of plastic products has become an indispensable part of our lives. However, due to improper discharge into the ocean and their prevalence in food storage, humans ingest microplastics (MP) from the consumption of seafood or drinking water, which poses safety hazards. Furthermore, the existing MP separation methods, such as density separation and filtration, are limited by low efficiency, contamination, and lack of standardisation. A microscale platform is designed and optimised to remove small MP for environmental research and water purification. The microplastic concentrator (MPC) will be evaluated with seawater samples and automated for ease of operations. Overall, the project aims to provide innovative technology with minimal equipment requirements, providing a low-cost and convenient method that tackles environmental crises and improves food safety standards.</p>
Summary of the Findings/Outcomes:	To be available upon completion of the project