

微型及奈米塑膠的流布及微量分析的挑戰

Challenges of micro- and nano- plastic analysis in environments

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摘要

Plastic pollution are increasingly recognized as ubiquitous contaminants in the Earth, and pose an ecological risk to both ecosystems and humans. Fresh plastics and debris enter natural systems and undergo various degradation processes, to gradually break down this material into micro-plastics (MPs) and nano-plastics (NPs). As plastic materials degrade (i.e. NPs), their ecological and toxic impacts become more complex. Therefore, the NP extraction, analysis and quantification is considered a critical step for further ecological assessments. In this talk, I will share footsteps for the development of micro- and nano- plastic analysis in environmental matrices and discuss various ecological implications. In addition, my recent works applying multiple techniques (py-GC/MS) to MP and NP characterization such as size distribution, tensile strength, and shape changes will be presented.

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