Special Issue

Microplastics: Migration, Transformation, and Impacts in Natural and Anthropogenic Settings

Message from the Guest Editors

This Special Issue investigates the complex behaviors of microplastics (MPs) across environmental interfaces. It focuses on critical processes: (1) migration (e.g., hydrological transport, atmospheric dispersion, biomediated movement) and (2) transformation (e.g., photodegradation, biofilm adhesion, chemical weathering, interactions with co-pollutants) in diverse settings, and natural ecosystems (oceans, soils, freshwater) and human-engineered systems (wastewater plants, agricultural lands, urban infrastructure). It aims to compile cutting-edge research on MPs' environmental fate, bridging gaps between source, pathways, and sinks. It will advance predictive models for MP distribution, bioavailability, and risk. While existing literature often isolates MPs' impacts within specific environments, this issue uniquely integrates natural and engineered systems to trace MPs' full lifecycle, highlights understudied interfaces, prioritizes transformation products and their ecotoxicological implications, and promotes cross-disciplinary methodologies. By synthesizing mechanistic insights across environmental matrices, the issue addresses urgent knowledge gaps for evidence-based MP mitigation.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

Toxics (ISSN 2305-6304) is an international, peer-reviewed, open access journal which provides an advanced forum for studies related to all aspects of toxic chemicals and materials. We aim to publish high quality work that furthers our understanding of the exposure, effects, and risks of chemicals and materials in humans and the natural environment as well as approaches to assess and/or manage the toxicological and ecotoxicological risks of chemicals and materials. Please consider publishing in *Toxics* when preparing your next paper.

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