Special Issue

Emerging Aquatic Pollutants including Engineered Nanoparticles and Their Molecular Mechanisms of Effect on Hydrobionts

Message from the Guest Editors

Our Special Issue focuses on emerging aquatic pollutants (EAP) such as antibiotics and other pharmaceuticals, pesticides, steroid hormones, pigments, surfactants, solvents, as well as engineered nanoparticles, microplastics and other chemicals and materials. Such contaminants released continuously into the aquatic environment even in very low quantities, can cause chronic toxicity and endocrine disruption in aquatic life and humans, and contribute to the emergence of resistant pathogens. Scientific knowledge about the molecular mechanisms of the toxic effect of EAP on inhabitants of marine and freshwater ecosystems is limited. Thus, there is a need to strengthen scientific knowledge and improve relevant methodological approaches to better understand the effects and mechanisms of treatment of EAP on the inhabitants of the aquatic environment, as well as to identify, bioindicate and bioremove these pollutants from water. Of particular interest here are engineered nanoparticles and microplastics as potential carriers of other toxicants. This Special Edition welcomes original research papers as well as high-quality review papers in all of the aforesaid fields.

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International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed

mdpi.com/si/155927

International Journal of Molecular Sciences
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mdpi.com/journal/ijms

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an Open Access Journal by MDPI

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