

Special Issue

Effects of Acute Exposure to Toxicants on Oxidative Stress in Aquatic Organisms

Message from the Guest Editors

Acute exposure to pollutants or stressors such as heavy metals, pesticides, drugs, and other toxic substances in aquatic environments can markedly affect oxidative stress levels in aquatic organisms. Oxidative stress is defined as an excessive production of free radicals that can impact the structure and activity of essential biological functions through damage to proteins, lipids, and DNA, potentially leading to cell death. However, the effects of oxidative stress are not uniform across all species, with reported species-specific differences in antioxidant capacity. Therefore, studying the effects of acute exposure on oxidative stress in aquatic organisms by assessing different biomarkers (e.g., the levels of lipid peroxides, DNA damage, and antioxidant enzyme activities) is essential for understanding environmental impacts and developing effective conservation strategies. The contributions should be focused on new mechanisms and/or new approaches to advance our understanding of the harmful effects of oxidative stress in aquatic ecosystems, thereby helping with the establishment of guidelines for pollutant levels and allowing potential remediation efforts.

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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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