Special Issue

Evaluation and Biomonitoring of Potentially Toxic and Rare Earth Elements

Message from the Guest Editors

Pollution from potentially toxic elements (PTEs) is a widespread environmental issue affecting all environmental matrices. The health impacts of PTEs are well documented, including carcinogenesis (e.g., arsenic, cadmium), neurological damage (e.g., lead, mercury), renal and hepatic toxicity, and metabolic and endocrine disturbances, among others. They have been shown to disrupt various biological systems, inducing oxidative stress, lipid peroxidation, and nucleic acid damage, and have been associated with carcinogenic, metabolic, and neurodegenerative outcomes. Given the continuous exposure of both humans and animals to PTEs and REEs—mainly through inhalation, dermal absorption, and dietary intake—there is a critical need for comprehensive biomonitoring strategies. These should include the assessment of lesser-studied elements in biological tissues, such as antimony, palladium, thorium, and thallium. Research must focus on their presence, distribution, and biological effects, employing robust risk assessment frameworks grounded in exposure levels and organismal responses.

Guest Editors

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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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