

Special Issue

Impact of Micro- and Nanoplastics and Protective Dietary Nutrients for Human Health

Message from the Guest Editors

The environmental impact of micro- and nanoplastics (MNPs) has dramatically increased, representing a major global concern in virtue of their persistence and bodily accumulation. Recently, dietary nutrients have gained considerable attention for enhancing resilience to MNPs and overall human health. Interestingly, dietary nutrients display biphasic dose–response effects by activating, at the minimum dose, anti-apoptotic pathways such as Bcl-2, tight junction proteins, the Nrf2 pathway, and antioxidant proteins to block reactive oxygen species (ROS) and restore barrier integrity. The Special Issue focuses on nutrition targeting several cellular and molecular pathways to block MNP-induced toxicity and regulate impaired tight junctions and epigenetic alterations and explores the underlying mechanisms using innovative in vitro and in vivo technologies for the development of promising protective strategies and personalized nutritional therapies in order to prevent or attenuate oxidative stress, apoptosis, and inflammation and, consequently, promote human health.

Guest Editors

Prof. Dr. Angela Trovato Salinaro

Department of Biomedical and Biotechnological Sciences, University of Catania, 95123 Catania, Italy

Dr. Maria Concetta Scuto

Department of Biomedical and Biotechnological Sciences, University of Catania, 95125 Catania, Italy

Deadline for manuscript submissions

closed (31 March 2025)



Toxics

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/208450

Toxics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
toxics@mdpi.com

mdpi.com/journal/toxics





Toxics

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 6.4
Indexed in PubMed



[mdpi.com/journal/
toxics](https://mdpi.com/journal/toxics)



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.

Editor-in-Chief

Dr. Demetrio Raldúa
Department Environmental Chemistry, IDAEA-CSIC, Jordi Girona 18,
08034 Barcelona, Spain

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, AGRIS, and other databases.

Journal Rank:

JCR - Q1 (Toxicology) / CiteScore - Q1 (Chemical Health and Safety)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.1 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).