

Special Issue

Biological Effect of Environmental Pollutants: Silkworm as a Model Organism

Message from the Guest Editor

The biological effects of environmental pollution on silkworms are significant, mainly reflected in air pollution, pesticides, and environmental hormones. Fluoride in air pollution also causes toxicity to silkworms, and there is a fluoride tolerance mechanism in their bodies. Silkworms have a short life cycle, simple feeding, and low cost. Due to their artificial domestication, their stress resistance is gradually deteriorating, making them sensitive to adverse external factors. Therefore, they are very suitable for studying the toxicological mechanisms of environmental pollution factors. Pesticides and hormones often cause toxicity to sericulture by affecting cell apoptosis and by disrupting the antioxidant defense system. In addition, an excessive intake of heavy metals, such as arsenic, cadmium, lead, etc., from mulberry leaves can also damage the digestive system of silkworms and affect their growth and development. This type of research will not only help to elucidate the toxicological mechanisms of environmental pollution but will also present significant implications for the sustainable development of the silkworm industry.

Guest Editor

Dr. Liang Chen

School of Life Sciences, Jiangsu University, Zhenjiang 212013, China

Deadline for manuscript submissions

30 April 2025



Toxics

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 4.5
Indexed in PubMed



mdpi.com/si/221105

Toxics

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

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





Toxics

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 4.5
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 - Q2 (Chemical Health and Safety)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2024).