

Special Issue

Synthetic Compounds: Antioxidant and Anti- Inflammatory Activities, Biomedical Properties and Formulations

Message from the Guest Editors

Whether of natural or synthetic origin, antioxidants can protect cells and tissues from free-radical-mediated damage. Antioxidants can minimize food loss, act as preservatives in drug and herbal formulations, or act as health-promoting compounds. Indeed, oxidation and inflammation are strictly connected by means of pleiotropic and redundant pathways. Antioxidants can tackle inflammation-related diseases by limiting excessive cytokine-mediated inflammatory responses. In this Special Issue, we will focus on antioxidant design, synthesis, purification, characterization, mechanisms of action, and biological and toxicological activities through in vitro, ex vivo, and in vivo investigations into synthetic antioxidants and anti-inflammatory agents.

Nanotechnology-based formulations and delivery systems for these compounds, to improve bioavailability and reduce toxicity or chemical instability, will be also considered. Finally, updates on pharmacological effects, therapeutic properties, and future options in these compounds are also welcome. New protocols to assess the efficacy of these compounds will, furthermore, be considered.

Guest Editors

Dr. Simone Carradori

Department of Pharmacy, "G. d'Annunzio" University of Chieti-Pescara,
Via dei Vestini 31, 66100 Chieti, Italy

Dr. Ilaria D'Agostino

Department of Pharmacy, "G. d'Annunzio" University of Chieti-Pescara,
66100 Chieti, Italy

Deadline for manuscript submissions

closed (20 April 2026)



Antioxidants

an Open Access Journal
by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed



mdpi.com/si/216137

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

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





Antioxidants

an Open Access Journal
by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of “oxidative stress” a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

Editor-in-Chief

Prof. Dr. Alessandra Napolitano
Department of Chemical Sciences, University of Naples “Federico II”,
Via Cintia 4, I-80126 Naples, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, FSTA, PubAg, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Chemistry, Medicinal) / CiteScore - Q1 (Food Science)