

## Special Issue

# Antioxidants: Discovery, Analysis, Medicinal Prospects and Potential Applications

### Message from the Guest Editors

Antioxidants, a chemically diverse group of compounds, are of great interest due to their key role in advancing human health. These compounds have the potential to delay or prevent cell damage by scavenging free radicals through various lines of defense. The main dietary sources of antioxidants are fruits, the fruiting bodies of edible mushrooms and mycelia, vegetables, herbs, algae, and nutraceuticals and dietary supplements fortified with synthetic or natural antioxidants. Phenolic and indole compounds, carotenoids, sterols, and some vitamins and bioelements play a key role in protecting our cells from oxidative stress and reducing the risk of chronic diseases. If not properly addressed, damage caused by free radicals produced as by-products of metabolic pathways (and by external factors such as pollution, smoking, UV radiation, and certain medications) may contribute to the development of age-related diseases such as cancer or neurodegenerative disorders.

In this Special Issue, we will explore and delve into the multifaceted world of antioxidants, examining their discovery, analysis, mechanisms of action, and pro-oxidant–antioxidant balance.

---

### Guest Editors

Prof. Dr. Włodzimierz Opoka

Department of Inorganic Chemistry and Pharmaceutical Analytics,  
Faculty of Pharmacy, Jagiellonian University Medical College, 30-688  
Kraków, Poland

Dr. Agata Kryczyk-Poprawa

Department of Inorganic and Analytical Chemistry, Faculty of Pharmacy,  
Jagiellonian University Medical College, 9 Medyczna Street, 30-688  
Kraków, Poland

---

### Deadline for manuscript submissions

20 May 2026



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/203812](https://mdpi.com/si/203812)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

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





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



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



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, 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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )