

Special Issue

NMR Spectroscopy for the Characterization of Foods: Applications in Antioxidant Research and Beyond

Message from the Guest Editors

Nuclear magnetic resonance (NMR) spectroscopy is a powerful and versatile tool in food science, offering unique insights into the chemical composition, structure, and dynamics of bioactive compounds. In the field of antioxidants, NMR enables the direct and non-destructive analysis of phenolics, flavonoids, vitamins, and other molecules with health-promoting properties. Moreover, NMR contributes to unravelling the mechanisms of oxidative stability, food processing effects, and the role of antioxidants in nutrition and health.

This Special Issue welcomes original research articles and reviews focused on NMR applications in food and antioxidant science. Topics of interest include, but are not limited to, the following:

- NMR spectroscopy for the characterization of antioxidant compounds;

- Metabolomic and chemometric approaches to evaluate antioxidant activity and bioavailability;

- NMR studies on oxidative stability, food processing, maturation, and storage;

- Low-field NMR and magnetic resonance imaging (MRI) applied to antioxidant-rich foods and beverages;

- Novel applications of NMR to assess authenticity, traceability, and functional properties related to antioxidants.

Guest Editors

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Deadline for manuscript submissions

30 September 2026



Antioxidants

an Open Access Journal
by MDPI

Impact Factor 6.6
CiteScore 14.7
Indexed in PubMed



mdpi.com/si/256803

Antioxidants
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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

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