



# antioxidants



*Special Issue Reprint*

## **Advances in the Astonishing World of Phytochemicals: State-of-the-Art for Antioxidants**

[www.mdpi.com/books/reprint/8063](http://www.mdpi.com/books/reprint/8063)

Edited by  
Antonella D'Anneo  
Marianna Lauricella



ISBN 978-3-0365-8604-5 (Hardback)  
ISBN 978-3-0365-8605-2 (PDF)

This reprint represents a collection of scientific papers belonging to a Special Issue of *Antioxidants* entitled "Advances in the Astonishing World of Phytochemicals: State-of-the-Art for Antioxidants". Several studies have revealed that plants are a source of a plethora of bioactive compounds, such as phytohormones, glycosides, terpenoids, alkaloids, phenolic compounds, and essential oils, with a strong potential impact in the fields of pharmaceuticals and agriculture. These phytochemicals represent a valuable weapon that plants use in self-defense in order to counteract the effects of abiotic stress disturbing the delicate equilibrium between the generation of reactive oxygen species (ROS) and antioxidant defense systems. In recent years, interest in this area of research has been increasing due to the multifaceted properties of natural compounds with antioxidants having anticancer, anti-inflammatory, and antimicrobial activity. Therefore, understanding the underlying mechanism of their action is crucial to establishing their real potential in applied sciences. This reprint focuses on the most recent advances in the study of antioxidant molecular mechanisms activated by phytochemicals, with potential pharmacological and agricultural applications. We thank all the authors for their contribution to the research topic of this reprint and all editorial staff for their valuable support.



Order Your Print Copy  
You can order print copies at  
[www.mdpi.com/books/reprint/8063](http://www.mdpi.com/books/reprint/8063)

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



## Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



## Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



## High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



## High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



## Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.