



**foods**



*Special Issue Reprint*

## **Thermal and Non-Thermal Treatments to Preserve and Encourage Bioactive Compounds in Fruit and Vegetables Based Products**

[www.mdpi.com/books/reprint/7273](http://www.mdpi.com/books/reprint/7273)

Edited by

Marina Cano-Lamadrid

Francisco Artés-Hernández

ISBN 978-3-0365-6830-0 (Hardback)

ISBN 978-3-0365-6831-7 (PDF)



Fruit- and vegetable-based products (F&Vs) have been conventionally processed using thermal techniques such as pasteurization, scalding, and/or drying, ensuring microbial safety and/or enzyme deactivation. Although thermal treatments are the most cost-effective tools, they could also reduce bioactive compounds, nutrients, and even sensory attributes. Nowadays, non-thermal food-processing technologies such as UV light and high-pressure processing have been proposed to develop food products with extended shelf life and preserved/encouraged bioactive compounds, while preserving the sensory properties. This reprint addresses the existing knowledge gaps of novel thermal and non-thermal techniques in the production of F&Vs and their derivatives. This reprint focuses on the effect of thermal and non-thermal treatments (light stresses, high hydrostatic pressure, pulse electric fields, oscillating magnetic fields, cold plasma, ultrasound, drying, etc.) on shelf-life, key bioactive compound changes (antioxidants, nutraceuticals, flavonoids, and non-flavonoids), enzymatic antioxidant systems, and non-enzymatic antioxidant systems of fruit- and vegetable-based products. Apart from an editorial written by the guest editors, the Special Issue consists of 13 papers that cover a range of subjects: thermal and non-thermal treatments on whole fruits (n = 4); thermal and non-thermal treatments on fruit and vegetable byproducts (n = 3); and, thermal and non-thermal treatments on fruit-based beverages and purées (n = 6).



Order Your Print Copy

You can order print copies at

[www.mdpi.com/books/reprint/7273](http://www.mdpi.com/books/reprint/7273)

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.