





Special Issue Reprint

# **Bioenergy and Biofuels**

www.mdpi.com/books/reprint/4463

Edited by Karol Tucki Olga Orynycz

ISBN 978-3-0365-2051-3 (Hardback) ISBN 978-3-0365-2052-0 (PDF)



The condition of the fuel and energy sector reflects the state of the economy around the world. New technologies in the energy sector and management of its development, together with a dynamically changing environment, as well as care for sustainable development and energy security, make the energy and automotive industry the most important sectors of the economy, whose dynamic development has been observed for many years. It should be emphasized that an important factor mobilizing the search for modern technologies, especially in energy and transport, is progressive climate change, closely related to greenhouse gas emissions. The Special Issue "Bioenergy and Biofuels" of the journal Sustainability was dedicated to the publication of works on obtaining energy from biological sources. Obviously, bio-based biomass contains mainly carbon and hydrogen and can be converted into various types of fuel or burned directly to provide heat. From the composition of biomass, it can be easily deduced that its combustion mainly causes the emission of carbon dioxide and water. Carbon dioxide from biomass is assumed to have been absorbed from the atmosphere during plant growth and will be reabsorbed. Therefore, it is not a source of climate warming, and it only temporarily increases the concentration of carbon dioxide in the atmosphere. This situation is the main reason for the use of plant biomass for energy purposes. Due to the variety of applications, there are many technologies for obtaining energy from biomass. New technologies for obtaining as well as technologies for converting bio-based fuels into various forms of energy may also emerge. The use of renewable energy sources is governed by a number of legal provisions on various aspects of of biomass into fuels, the use of waste biomass, etc. Order Your Print Copy

You can order print copy www.mdpi.com/books/reprint/4463



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.

MDPI AG Grosspeteranlage 5 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

