







Special Issue Reprint

Sustainable Development and Application of Renewable Chemicals from Biomass and Waste

www.mdpi.com/books/reprint/6643

Edited by Mohamad Nasir Mohamad Ibrahim Patricia Graciela Vázquez Mohd. Hazwan Hussin

ISBN 978-3-0365-6433-3 (Hardback) ISBN 978-3-0365-6432-6 (PDF)



Advancements in efficient energy sources have played a pivotal role in determining the present world energy structure. Renewable biomass energy has been incorporated in industrial regulations and policies in many European countries. Based on the statistics, more than one-seventh of the total world energy consumption is generated from biomass. The renewable energies movement was prompted by two important factors: a) growing world energy consumption and b) the abundance of generated biomass residues, especially in agriculture. In the case of the first, batteries containing different metals are considered, as is the production of items for human consumption (food, clothing, home comfort, etc.). In the second case, the biomass waste from plants and animals, as byproducts of cultivating and production processes, is the main source of generated waste.





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 St. Alban-Anlage 66 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

