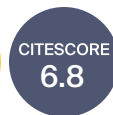




sustainability



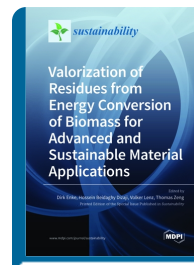
Special Issue Reprint

Valorization of Residues from Energy Conversion of Biomass for Advanced and Sustainable Material Applications

www.mdpi.com/books/reprint/5470

Edited by
Dirk Enke
Hossein Beidaghy Dizaji
Volker Lenz
Thomas Zeng

ISBN 978-3-0365-4216-4 (Hardback)
ISBN 978-3-0365-4215-7 (PDF)



The focus of this Special Issue was on biomass ash valorization with respect to their potential for various material applications. Most of the publications in this Special Issue focused on the production of biogenic silica with different properties. Additionally, some of the publications considered application of biomass ashes and biochar as a fertilizer, for soil amendment and recovery of ash forming elements such as N and P, as well as the application of biomass feedstocks in biofuel production.

Accordingly, ashes produced from the thermochemical conversion of agricultural residues have high potential to be utilized for different material applications. However, local availability, as well as scaling up the process and life-cycle assessment should be considered prior to the utilization of these materials. Furthermore, densification as a mechanical pre-treatment can be crucial to improve the fuel properties, while purification of some of the ash forming elements, such as calcium, potassium, and phosphorus should also not be disregarded in future investigations.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/5470

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.