



applied sciences

IMPACT
FACTOR
2.5

CITESCORE
5.3

Special Issue Reprint

Thermochemical Conversion Processes for Solid Fuels and Renewable Energies: Volume II

www.mdpi.com/books/reprint/6025

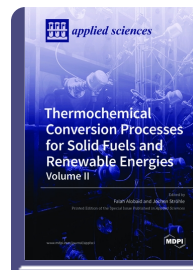
Edited by

Falah Alobaid

Jochen Ströhle

ISBN 978-3-0365-5145-6 (Hardback)

ISBN 978-3-0365-5146-3 (PDF)



The increasing share of renewable energy sources is drawing attention to a critical challenge. The availability of wind turbines and photovoltaic solar cells is limited and difficult to predict. They usually provide a fluctuating feed-in to the grid, so energy reserves, e.g., conventional thermal power plants or energy storage systems, are necessary to establish a balance between electricity supply and demand. Various solutions can be adopted to maintain the security of supply and improve the flexibility of the future power system, such as improving the efficiency of technical processes in areas such as thermal power plants, cement and metallurgy industries, the use of advanced thermochemical conversion technologies such as gasification, the expansion of high-voltage transmission infrastructure, the promoting of renewable energy sources, the employment of large-scale energy storage systems, and the use of highly flexible power generation units with carbon capture and utilisation, such as combined-cycle power plants. Given this background, this Special Issue contains fundamental scientific studies on the latest research progress in the development and optimisation of gasification processes, renewable energy source “solar energy”, synthesis of new hybrid nanocomposites and nanofluids, carbon capture, and energy storage systems.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6025

Jochen Ströhle

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.