

Special Issue Reprint

Nanomaterials for Environmental Purification and Energy Conversion

www.mdpi.com/books/reprint/2009

Edited by

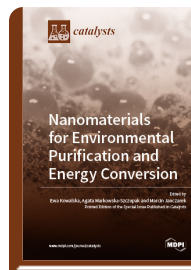
Ewa Kowalska

Marcin Janczarek

Agata Markowska-Szczupak

ISBN 978-3-03921-814-1 (Softback)

ISBN 978-3-03921-815-8 (PDF)



The Special Issue, “Nanomaterials for Environmental Purification and Energy Conversion”, describes the significant and increasing role of nanomaterials in catalysis. It is believed that the most important factor for future human development could be to use nanomaterials (nanotechnology) to solve such critical issues facing humanity such as environment, water and energy. It should be also pointed out that properties of nanomaterials differ substantially from that of bulk materials of the same composition, resulting in high reactivity. Therefore, it creates new perspectives for the catalytic processes in the broad sense. This issue was mainly dedicated as a platform for the contributions from The Symposium on Nanomaterials for Environmental Purification and Energy Conversion (SNEPEC), which was held in Sapporo, Japan in winter 2018. Accordingly, this book compiles the current state-of-the-art of research in the area of novel photocatalysts and highlights current research directions in the fields of advanced oxidation technologies, material science and nanotechnology. Written by leading experts in the field of photochemistry and chemical engineering, a collection of 17 papers, including 16 research papers and one review, covers a broad range of topics focusing on the exceptional role of catalytic nanomaterials in solving environmental and energy problems of modern societies. The majority of papers present the importance of photocatalytic nanomaterials, especially for degradation of organic pollutants and inactivation of microorganisms, but there is also a strong representation of conventional catalysis based on nanomaterials for important processes such as catalytic hydrogenation and organic synthesis.

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.