



nanomaterials

IMPACT
FACTOR
5.3

Indexed in:
PubMed

CITESCORE
7.4

Special Issue Reprint

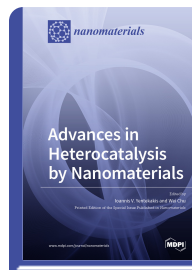
Advances in Heterocatalysis by Nanomaterials

www.mdpi.com/books/reprint/2268

Edited by

Ioannis Yentekakis

Wei(Willy) Chu



ISBN 978-3-03928-835-9 (Softback)

ISBN 978-3-03928-836-6 (PDF)

Heterogeneous catalysis played, plays, and will continue to play, a major key role in industrial processes for large-scale synthesis of commodity chemicals of global importance, and in catalytic systems that possess a critical role in energy generation and environmental protection approaches. As a result of the ongoing progress in materials science, nanotechnology, and characterizations, great advances have been achieved in heterogeneous catalysis by nanomaterials. Efficient approaches and advanced methods for the design of nano-structured composite materials (up to atomic level), subject to specific nano-morphologies with enhanced metal-metal and metal-support interactions favorable for catalysis (that enable fine-tuning of the critical properties of the designed catalysts), provide optimized catalysts with outstanding performances in numerous eco-friendly and cost-effective applications. Accordingly, great progress has been achieved involving, for example, emissions control, waste treatment, photocatalytic, bio-refinery, CO₂ utilization, and fuel cells applications, as well as hydrocarbon processing for H₂, added-value chemicals, and liquid fuels production. The themed Special Issue has succeeded in collecting 10 high-quality contributions that cover recent research progress in the field for a variety of applications (e.g., environment, energy, added-value chemicals/organics synthesis, and bio-transformation) declaring the prospect and importance of nanomaterials in all the directions of heterogeneous catalysis.



Order Your Print Copy

You can order print copies at

www.mdpi.com/books/reprint/2268

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.