



catalysts



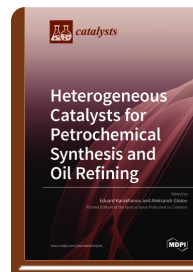
Special Issue Reprint

Heterogeneous Catalysts for Petrochemical Synthesis and Oil Refining

www.mdpi.com/books/reprint/4410

Edited by
Eduard Karakhanov
Aleksandr Glotov

ISBN 978-3-0365-1430-7 (Hardback)
ISBN 978-3-0365-1429-1 (PDF)



Heterogeneous catalysis is among the major solutions for cost-effective and sustainable industrial application and processing. The design and development of highly efficient and stable heterogeneous catalysts represent an emergent frontier for overcoming energy and environmental challenges. Many industrial petrochemical and oil refining processes are faced with new challenges that can be solved using heterogeneous catalysts.

This book covers the most recent progress and advances in the field of heterogeneous catalysts based on mesoporous composites with embedded halloysite nanotubes covered with ruthenium nanoparticles for exhaustive aromatics hydrogenation, generated in situ and supported on zeolites' transition metal sulfides for the hydrocracking of the pyrolysis fuel oil and n-alkanes isomerization. This book also includes investigations of novel rhodium systems supported on FeCrAl composite for the coupling of pre-reforming and partial oxidation to liquefied petroleum gas processing into syngas. We have collected works devoted to the palladium catalysts based on porous aromatic frameworks and alumina for the hydrogenation of unsaturated compounds (alkynes, alkenes and dienes) and for the selective removal of acetylene from ethane–ethylene fractions.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/4410

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.