



catalysts

IMPACT
FACTOR
3.9

CITESCORE
6.3

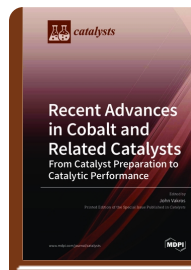
Special Issue Reprint

Recent Advances in Cobalt and Related Catalysts

www.mdpi.com/books/reprint/3888

Edited by
John Vakros

ISBN 978-3-0365-1422-2 (Hardback)
ISBN 978-3-0365-1421-5 (PDF)



Currently, cobalt and related catalysts are very attractive as they provide many advantages, such as low cost and high activity, in a variety of applications. Cobalt catalysts are among the most active catalysts for Fischer–Tropsch synthesis and they promote the catalytic activity of the hydrodesulfurization catalysts. They also found other significant applications in environmental protection such as oxidation of volatile organic compounds, VOC, persulfate activator, ammonia synthesis, electrocatalysis and many more. Cobalt catalysts are active, stable and exhibit significant oxidation–reduction activity, as the Co can be found either as Co(II) or Co(III). Additionally, many molecules can interact with the cobalt supported phase by co-ordination due to partially filled d-orbital. Co-catalysts can be supported in almost all the inorganic supports such as alumina, titania, zeolites, etc. The cobalt oxide phase can be stabilized on the surface of the support due to variable interactions between the support and cobalt phase. These interactions are crucial for catalytic activity and can be regulated by proper selection of the preparation parameters such as the type of support, the Co loading, impregnation method and thermal conditions.

This Special Issue aims to cover recent progress and advances in the field of cobalt and related catalysts.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/3888

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.