

Special Issue Reprint

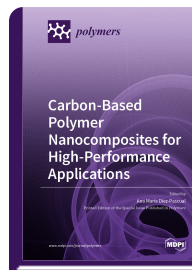
Carbon-Based Polymer Nanocomposites for High-Performance Applications

www.mdpi.com/books/reprint/2353

Edited by
Ana Díez-Pascual

ISBN 978-3-03928-991-2 (Softback)

ISBN 978-3-03928-992-9 (PDF)



Carbon-based nanomaterials such as carbon nanotubes, graphene and its derivatives, nanodiamond, fullerenes, and other nano-sized carbon allotropes have recently attracted a lot of attention among the scientific community due to their enormous potential for a wide number of applications arising from their large specific surface area, high electrical and thermal conductivity, and good mechanical properties. The combination of carbon nanomaterials with polymers leads to new nanocomposites with improved structural and functional properties due to synergistic effects. In particular, the properties of carbon-based polymer nanocomposites can be easily tuned by carefully controlling the carbon nanomaterial synthesis route and additionally the versatile synergistic interactions amongst the nanomaterials and polymers. This book provides selected examples of the most recent advances regarding carbon nanomaterial-reinforced polymeric composites. It includes the most representative types of polymeric matrices and covers aspects of new processing techniques, novel surface modifications of carbon nanomaterials and their applications in diverse fields, in particular in electronics and energy storage.

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.