



polymers



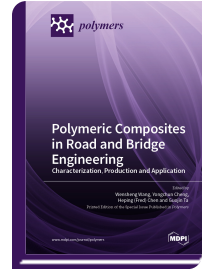
Special Issue Reprint

Polymeric Composites in Road and Bridge Engineering: Characterization, Production and Application

www.mdpi.com/books/reprint/6982

Edited by
Wensheng Wang
Yongchun Cheng
Heping (Fred) Chen
Guojin Tan

ISBN 978-3-0365-6778-5 (Hardback)
ISBN 978-3-0365-6779-2 (PDF)



Roads, bridges, airports, and ports are multirole transportation infrastructure assets, which rely heavily on asphalt, cement, and aggregates in traditional civil engineering. Multirole transportation infrastructures should be resistant enough against structural loads and vehicle loads. Further, multirole transportation infrastructures are greatly affected by climate change, which has the potential to impact both long- and short-term infrastructure performance. Recent developments in materials science, especially polymers, have brought new perspectives in the modification of civil engineering materials and consequent improvements. Being both strong and lightweight, polymer composites have already found wide-ranging uses in civil engineering. The application of various types of polymers includes admixtures and additives (e.g., alternative binders, polymer fibers) for enhanced mechanical performances and enhanced functional properties such as self-healing and self-cleaning. Therefore, it is necessary to analyze advanced functional polymer composites sitting at the intersection of physics, chemistry, materials science, and engineering. It is concerned with the possible applications of polymeric composites to develop new technologies in road and bridge engineering, which will focus on current and future research toward characterization techniques, evaluation tools, and the production of advanced functional polymer

Order Your Print Copy

You can order print copies at

www.mdpi.com/books/reprint/6982



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.