



lubricants



Special Issue Reprint

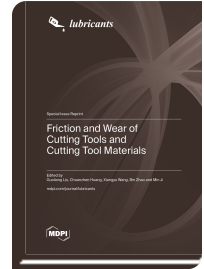
Friction and Wear of Cutting Tools and Cutting Tool Materials

www.mdpi.com/books/reprint/9601

Edited by
Guoliang Liu
Chuanzhen Huang
Xiangyu Wang
Bin Zhao
Min Ji

ISBN 978-3-7258-1571-5 (Hardback)

ISBN 978-3-7258-1572-2 (PDF)



The friction between cutting tools and the workpiece/chip can significantly affect tool wear, cutting force, cutting temperature, machined surface integrity, and machined parts' service performance. The friction and wear of cutting tools have long been a focus of researchers. In recent years, the development of new cutting methods and cutting tools, such as ultrasonic vibration-assisted cutting, cryogenic cutting, MQL cutting, and micro-textured tools, has changed the friction and wear rules of cutting tools. This Special Issue presents the latest advances in the fields of the friction and wear of cutting tools and cutting tool materials. This Special Issue contains 14 papers covering the design of anti-wear micro-textures/coatings, the development of new lubricating methods, cutting process modeling, and the analysis of friction mechanisms. We would like to sincerely thank all of the authors for submitting exceptional research papers to this Special Issue. We would also like to thank all of the reviewers who dedicated their precious time to carefully examine and help improve the quality of all of the submitted manuscripts. Finally, we would like to thank Ms. Faye Yin, Section Managing Editor, for her outstanding continuous support.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/9601

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.