



materials



Special Issue Reprint

Forming Technologies and Mechanical Properties of Advanced Materials

Edited By:

Tomasz Trzepieciński

Valentin Ștefan Oleksik

mdpi.com/books/pdfview/book/7163

ISBN 978-3-0365-7282-6 (hardback)

ISBN 978-3-0365-7283-3 (PDF)



This reprint focuses on the forming technologies and mechanical properties of advanced materials. Plastic working is the most efficient and an important manufacturing technology in today's industry. Plastic working technologies enable giving the material the appropriate functional properties, which depend on the rheological conditions of the plastic forming process and on the thermoplastic treatments carried out during the forming process. Metal processing is one of the most important sectors of the economy. In addition to the continuous improvement in the existing methods of plastic working, new technologies are also implemented, the purpose of which is to reduce the energy consumption of processing and the modernization of technological machines and tools. The subjects of research articles published in this reprint are multidisciplinary, including friction and lubrication in sheet metal forming, the single-point incremental forming of polymeric and lightweight metallic sheets, the optimization of shear spinning parameters and the cutting performance of cutting tools, the numerical and experimental analysis of titanium sheet forming, the mechanical and structural properties of titanium alloy subjected to impact-oscillatory loading, macro- and microdeformation characteristics of Ti-2.5Al-1.5Mn foil, and the optimisation of the thermomechanical process of nickel-based oxide-dispersion-strengthened superalloys.



Order Your Print Copy

Print copies (170x244mm, Pbk) can be ordered at:

www.mdpi.com/books/pdfview/book/7163

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.