



*materials*



*Special Issue Reprint*

## **Forming Technologies and Mechanical Properties of Advanced Materials**

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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.



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