Special Issue

Crystallographic Planes Deformation in Metallic Materials

Message from the Guest Editor

Plastic deformation of metals is the basis for the realization of many components in different industry (automotive, aerospace, and biomedical) and an integral element of mechanical engineering. However, plastic deformation knowledge is also important for the understanding of certain failure mechanisms, e.g., creep. Crystal plasticity theory was recognized as valuable in elucidating mechanisms of plastic deformation of crystalline metals at the beginning of the previous century, but this theory has been extended since and used to consider other factors, such as the size effect and dislocations. The importance of the topics proposed for this Special Issue is evidenced by the steadily growing number of articles on crystallographic plane deformation in mainstream international journals over the past few years, and we hope that you will make further important contributions to this field through your high-quality research articles, communications, and reviews. It is our pleasure to invite you to submit your manuscript to this Special Issue.

Guest Editor

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Deadline for manuscript submissions

closed (30 June 2023)

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About the Journal

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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