Special Issue

Dynamic Response of Metals under Extreme Conditions

Message from the Guest Editors

We are currently organizing a Special Issue of *Metals* focused on the “Dynamic Response of Materials under Extreme Conditions”. The scope of this issue will include advances in theory, simulation, and experimental techniques to investigate damage and failure of metals. The issue will balance between modeling and experimental research. Updates on progress in modeling across a range of scales, including molecular dynamics, discrete and phase-field dislocation dynamics, continuum simulation of explicitly resolved microstructure defects, and macroscopic constitutive theory are solicited. We are especially interested in emphasizing competition between physical mechanisms such as nucleation and growth of voids, leading to final failure. We request articles presenting recent research on experimental techniques employing advanced diagnostics including, for example, phase contrast imaging and post-shock specimen recovery. If contributing to this Special Issue is of interest to you, please submit a tentative title and short abstract to us before the deadline. We will follow up with prospective authors and provide further guidance.

Guest Editors

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Deadline for manuscript submissions

closed (28 February 2023)

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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