Special Issue

Innovative Insights into Deformation and Failure of Metallic Alloys

Message from the Guest Editors

The escalating demand for engineering alloys capable of withstanding extreme loading and environmental conditions necessitates a comprehensive study of deformation, damage, and fatigue mechanisms. This collection delves into the intricate phenomena of deformation, damage, and fatigue in metallic alloys, encompassing wrought, additively manufactured, and high-entropy alloys (HEAs). The scope spans experimental investigations and innovative modeling techniques, addressing both macroscopic operational scales and microscopic local microstructures. Emphasis is placed on elucidating the mechanisms underpinning deformation and failure, thereby advancing our understanding of material behavior under various loading conditions. Contributions are solicited to explore the interplay between microstructural characteristics and mechanical performance, offering insights into the development of more resilient and durable metallic systems. This compendium aims to foster a comprehensive discourse on the latest advancements in the field, promoting the integration of experimental and computational methodologies to enhance predictive capabilities and material design.

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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