Special Issue

Processing-Microstructure-Properties Relationship of Advanced Alloys

Message from the Guest Editors

The processing–microstructure–properties relationship of alloys defines their feasibility and applicability. Understanding the fundamentals of these relationships allows for the predictability of materials performance and a more efficient design for integrated structures. The aim of this Special Issue "Processing–Microstructure–Properties Relationship of Advanced Alloys" of *Crystals* is to present recent findings on the following topics:

- Advanced alloys (high-entropy alloys, advanced high-strength steels, heterostructured materials, etc.);
- Novel or extreme processing (additive manufacturing, severe plastic deformation, etc.);
- Cutting-edge characterization techniques (in situ neutron/synchrotron diffraction, testing under extreme environments, shock-loading, etc.);
- Multidisciplinary alloys with improved mechanical properties;
- Strengthening and deformation mechanisms of advanced alloys;
- Simulations for processing–microstructure–properties relationship of alloys along with the experimental evidence.

Submissions of full papers, review articles, and communications are welcome.

Guest Editors

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Dr. Liliana Romero-Resendiz

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Deadline for manuscript submissions

closed (29 February 2024)

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About the Journal

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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