

## Special Issue

# Current Status and Recent Progress on Advanced Aluminum Alloys

### Message from the Guest Editors

Aluminum-rich metallic materials, as some of the most important structural and functional materials, are widely used in transportation, construction, aerospace, and aircraft and etc. Scientists have never stopped searching for superior Al-based alloys by adjusting/tuning their compositions, imperfections and structures from the macro- to the micro-scale, and even down to the nano-scale level. The approach to producing aluminum alloys has made great progress from traditional casting/forging/rolling to 3D printing/additive (smart) manufacturing; the design paradigm for aluminum alloys has evolved from initial “trial and error”, integrated computational materials engineering (ICME), to the state-of-the-art Materials Genome Initiative (MGI).

This Special Issue will mainly cover the mechanical properties of Al-rich materials fabricated by different routes and their associated microstructure–strength relations after post-processing treatments. Topics such as functional properties, advanced characterization, recycling, modeling and simulation, alloy development, etc. relating to Al-rich materials are also warmly welcome as contributions to this Issue.

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### Guest Editors

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Dr. Dengshan Zhou

Prof. Dr. Hailiang Yu

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### Deadline for manuscript submissions

closed (29 February 2024)



## Crystals

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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.

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### Editor-in-Chief

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