# Special Issue

# Composition, Processing, Microstructures, Properties, and Applications of Magnesium Alloys

## Message from the Guest Editor

The lower density gives Magnesium (Mg) alloys with significant advantages over their counterpart alloys (steel, Ti, and Al allovs) in structural applications where light weight is crucial. Many challenges that restrict their wide applications have been partly resolved in recent years due to our increasing understanding of the composition-processing-microstructure-properties relationships in Mg alloys. The current issue seeks to reflect this advance in our understanding by publishing original and outstanding works from Mg researchers worldwide. Review papers are also welcome. Invited paper topics include but are not limited to composition. processing, microstructure, mechanical properties, applications, heat treatment, precipitation, crystal plasticity, deformation twins, and modeling of Mg alloys. It is our great pleasure to invite you, our Mg researchers, to submit your work to this Special Issue on the composition, processing, microstructures, properties, and applications of magnesium alloys.

#### **Guest Editor**

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#### Deadline for manuscript submissions

closed (31 March 2022)



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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.

### Editors-in-Chief

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## **Rapid Publication:**

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).