

## Special Issue

# Microstructure, Mechanical Properties and Characterization of Magnesium-Based Alloys

### Message from the Guest Editors

This Special Issue of *Materials*, titled “Microstructure, Mechanical Properties and Characterization of Magnesium-Based Alloys,” aims to provide an interdisciplinary platform for the dissemination of recent advances in the design, processing, and characterization of magnesium-based materials. We welcome original research articles, comprehensive reviews, and short communications that address, but are not limited to, the following topics: Alloy design and novel magnesium-based compositions; Processing techniques (casting, deformation, additive manufacturing, etc.); Microstructural evolution and phase transformation; Mechanical behavior under various loading and environmental conditions; Corrosion and surface modification; Advanced characterization methods (microscopy, spectroscopy, in situ techniques, etc.); Modeling and simulation of microstructure–property relationships;

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### Guest Editors

Dr. Yiwen Chen

Dr. Zixin Li

Dr. Qingchen Deng

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### Deadline for manuscript submissions

20 February 2026



## Materials

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## About the Journal

### Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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### Editor-in-Chief

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