

## Special Issue

# Symmetry Application in Metals and Alloys

### Message from the Guest Editors

We are pleased to invite you to share your original results in our Special Issue, "Symmetry Application in Metals and Alloys". The development of aviation, aerospace, medical, electronics, and other fields continually place demands on high-performance metals and alloys. Improvements in the performance of a material requires the design and regulation of its microstructure, which is intrinsically related to the spatial arrangement of the primary units including atoms and phases. Symmetry plays a crucial role in metals and alloys, manifesting both macroscopically (e.g., structures, morphologies, processing routes) and microscopically (e.g., defects, stresses, crystal lattices). By using symmetry, metals and alloys with promising properties can be achieved. For instance, metals and alloys with symmetrical bionic structures exhibit excellent mechanical properties. Nano twins with symmetrical atomic arrangements affect the deformation mechanism of metals and alloys. Therefore, it is vital to understand, summarize, and apply methods involving symmetry in the design of novel metals and alloys...

### Guest Editors

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## About the Journal

### Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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### Editor-in-Chief

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