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# **Design, Processing and Characterization of Metals and Alloys**

Guest Editor:

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## **Message from the Guest Editor**

Dear Colleagues,

Metals and alloys, such as pure copper, aluminum alloy, steel, and TiAl intermetallic, are important materials for the aerospace, automobile, and electronic industries. All the products applied to any engineering field must experience the whole process of design and processing, including composition design, microstructure design, processing method and relative parameters. Furthermore, to detect the microstructure and optimize the service performance, both microstructure characterization and mechanical characterization are required to different extents. Thus, it is quite important to understand and unveil the close links among design, processing and characterization. This is the aim of this Special Issue, entitled "Design, Processing and Characterization of Metals and Alloys", and we hope to collect excellent studies on any metal or alloy from around the world. Works concerning but not limited to aluminum alloy, magnesium alloy, steel, copper, brass, Ti-Al, heat treatment, plastic deformation, mechanical behavior, phase transformation, and microstructure characterization are all welcome.











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## **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 metallurgical field the 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.

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