



materials



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Alloys and Composites: Structural and Functional Applications

Guest Editor:

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Message from the Guest Editor

According to the constituent phases in alloys and composites, materials can exhibit various performance characteristics, thus possessing great potentials in different application cases. The aim of this SI is to understand the basic principles of property design and tailoring in alloys and composites, to be used as structural or functional materials. The materials of interest include amorphous alloys, high-entropy alloys, lightweight alloys, metal matrix composites, ceramic matrix composites, and polymer matrix composites. To design and tailor macroscopic properties as structural or functional materials, such as macroscopic stiffness and strength, the phase constituent, volume fraction, and average size of each phase, interface bonding should be well investigated. A thorough understanding of how the composition and processing parameters influence the macroscopic properties will definitely help toward new breakthroughs in the field of alloys and composites and their use in different cases.



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Special issue



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Message from the Editor-in-Chief

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