Special Issue

High-Entropy Alloys and Composite Materials: Preparation, Processing, and Performance

Message from the Guest Editors

The research landscape on HEAs and HEA-based composites has grown exponentially, with significant breakthroughs in alloy design, microstructure manipulation, processing methodologies, and performance enhancement. Through the integration of diverse manufacturing techniques like casting, powder metallurgy, additive manufacturing, and surface engineering, scientists are exploring new approaches to improve mechanical strength, ductility, corrosion and wear resistance, and multifunctionality under extreme conditions. This Special Issue aims to serve as a comprehensive platform for disseminating the latest advancements and discussing the challenges in the field of HEAs and composite materials. It welcomes original research articles and reviews focusing on design strategies, microstructural characterization, innovative processing techniques, and performance evaluations. Additionally, contributions related to theoretical modeling, additive manufacturing, heterostructures, and application-oriented studies are highly encouraged.

Guest Editors

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Deadline for manuscript submissions

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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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