Special Issue

Mechanical Properties and Structure Control of Superalloys

Message from the Guest Editors

Superalloys are a group of nickel, iron–nickel and cobalt alloys, which exhibit excellent heat-resistant properties and high stiffness, strength, toughness and dimensional stability at high temperatures, as well good resistance to corrosion and oxidation at high temperatures. Currently, there are demands for high-performance superalloys via alloy design, microstructural control, emerging fabrication techniques, etc. Contributions related to microstructure design and microstructural control are collected in this Special Issue, together with their relation to the microstructure evolution and mechanical performance of superalloys. The goal of this Special Issue of *Materials* is to present contributions related to microstructure design and microstructural control as well he relationship between microstructure and mechanical performance of superalloys in different processing techniques processing techniques including casting, solidification, heat treatment procedures, hot-working, cold-working and additive manufacturing. It is my pleasure to invite you to submit a manuscript for publication in this Special Issue.

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Deadline for manuscript submissions

closed (20 September 2024)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/184173

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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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