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Mechanical and Metallurgical Characterizations of Advanced Alloys

Guest Editor:

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Deadline for manuscript
submissions:

closed (10 December 2022)

Message from the Guest Editor

Dear Colleagues,

The design and manufacturing of advanced materials are of great interest in many applications of automotive, aerospace, clean energy, military, and heavy industries. The addition of alloy elements and various manufacturing processes greatly influence the resulting microstructures and mechanical properties. Furthermore, microstructures and their material properties can be modified by post material processing, including shaping and forming, thermal and/or mechanical treatment, welding, and joining for the final application. In addition, residual stress after thermal and/or mechanical processing also affects mechanical performances under static or dynamic mechanical testing or in-service conditions.

This Special Issue focuses on multidisciplinary research for emerging alloy design, approaches, and theories of material processing and joining as well as advanced metallurgical characterizations and mechanical properties under static, dynamic, corrosion, high-pressure gas, or other environmental testing.



mdpi.com/si/46385

Special Issue



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Message from the Editor-in-Chief

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