Special Issue

Study of Microstructure Evolution and Deformation Behavior of Superalloys

Message from the Guest Editors

Superalloys are advanced structural materials that are mainly used in aircraft engines and also extensively applied in chemical, petrolic, and electrical industries. They are generally strengthened by second phases, such as , carbides, etc. Microstructure and its evolution are the decisive factors of the properties of superalloys. Deformation is the important process for preparing products and affecting microstructure at the same time. Advances in superalloys, which include microstructure evolution and deformation behavior, are within the scope of this Special Issue. Their influences on the mechanical, physical, and chemical properties are suitable as well. The results or methods improving the microstructure stability and temperature capacity are typically welcomed.

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Message from the Editor-in-Chief

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 the metallurgical field 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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