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Experiments and Simulations of Superalloys

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Message from the Guest Editors

Due to their ‘super’ performance, superalloys have sustained wide applications in aircraft, industrial gas turbines, oil equipment, and vehicles for over seven decades. Nevertheless, microstructure stability and the mechanical properties of materials during long-term service at elevated temperatures are still facing great challenges, such as (i) decomposition of primary carbides; (ii) precipitation and inhibition of σ , δ , η , μ , and Laves TCP phases; (iii) depletion and coarsening of γ' phase; (iv) occurrence of trace elements in alloys and the related consequences. These challenges together with the call for future demands necessitate a Special Issue to review recent progress upon which new developments can be built. The present Special Issue on Advances in Superalloys may become a status report summarizing the progress achieved in the past few years. During the time of COVID-19, we hope that not only researchers but also our community can benefit from the outcomes of this Special Issue.



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Special Issue



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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

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