Special Issue

Thermal and Thermomechanical Post-processing of Additively Manufactured Parts

Message from the Guest Editors

State-of-the-art metal additive manufacturing (AM), or 3D printing, allows for the fabrication of complex, near-net-shape geometries and the realization of more efficient and lightweight designs, more sustainable part manufacturing, rapid prototyping, and reduced machining costs. Despite the many advantages of AM methods, metal parts produced by AM generally do not achieve the same structural integrity and mechanical properties of wrought parts due to the development of high residual stresses and, possibly, the formation of detrimental phases and defects. In addition to optimizing the AM process conditions, post-processing operations, including thermal and thermomechanical treatments, are often employed to relieve the residual stresses, refine the microstructure, and improve the quality and properties of metallic parts produced by AM. This Special Issue aims to provide a forum for researchers and practitioners from academia and industry to publish their experimental and theoretical results on post-processing for additive manufacturing and to contribute to the quality improvements and rapid application of additively manufactured parts.

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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.

Editor-in-Chief

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