Special Issue

Additive Manufacturing: From Fundamentals to Materials Performance and Applications

Message from the Guest Editors

Additive manufacturing (AM) is revolutionizing the manufacturing sector, especially for the production of metallic components with added functionality—including complex or intricate geometries and conformal cooling channels—as well as for the production of highly customized parts with small production cycles. These processes include heat treatment; thermomechanical treatment; severe plastic deformation processes; casting and welding; and additive manufacturing, which can play a significant role in the creation of the desired properties of traditional metallic materials.

In this Special Issue, we aim to unite leading experts and scholars to contribute their insights, research findings, and innovations, thereby unraveling the multifaceted realm of additive manufacturing (AM) through exploring developments in the field and the design of alloys specific to the process. We welcome contributions from various disciplines, including materials science, metallurgy, mechanical engineering, computational modeling, and related fields.

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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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