Special Issue

New Materials and Concepts for Additive Manufacturing with Metals II

Message from the Guest Editors

As is well-known, laser powder bed-based additive manufacturing techniques for processing metals are almost established techniques for producing highly complex components and parts. The almost unrestricted freedom of geometry, for example, enables the integration of cooling channels close to the contour to minimize local hot spots so that the processing time can be shortened and the component distortion of the semi-finished product can be minimized. In addition to the high design flexibility, components can be generated close to the contour due to the layer-by-layer material application, i.e., work- and energy-intensive post-machining is often not required.

Nevertheless, the limited material spectrum and low process speeds have impeded the breakthrough of additively manufactured components on a large scale to date. For this reason, new materials are increasingly being developed explicitly for the AM process employing computer-based materials design.

The present Special Issue, entitled, "New Materials and Concepts for Additive Manufacturing with Metals II", aims to summarize the progress achieved in the last five years, as well as highlight recent research.

Guest Editors

Dr. Kay-Peter Hoyer

Chair of Materials Science, Paderborn University, 33098 Paderborn, Germany

Dr. Nan Kang

MSMP Mechanics, Surfaces and Materials Processing, 13617 Aix-en-Provence, France

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Crystals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
crystals@mdpi.com

mdpi.com/journal/crystals

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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

Prof. Dr. Alessandra Toncelli
Department of Physics, University of Pisa, 56126 Pisa, PI, Italy

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