Special Issue

Performance and Processing of Metal Materials

Message from the Guest Editors

This Special Issue explores the deep connection between the performance of metals and their unique properties, including mechanical strength, thermal and electrical conductivity, and corrosion resistance. It also delves into advanced processing methods, such as additive manufacturing, powder metallurgy, and thermal-mechanical treatments, which are driving new capabilities and enhancing the performance of metal materials. Contributions to this issue are encouraged from researchers focusing on the fundamental understanding of metal behaviour, such as stress-strain relationships, fatigue resistance, and environmental durability. Additionally, studies that demonstrate how new processing techniques can optimize metal microstructure and performance for high-end applications in aerospace, automotive, medical, and construction industries are of particular interest. With a focus on cutting-edge technologies and interdisciplinary research, this issue aims to catalyse further innovations in material design, processing, and application, reinforcing the critical role of metals in shaping the future of engineering and technology.

Guest Editors

Dr. Zhanfeng Wang

School of Mechanical and Electrical Engineering, Suqian University, Suqian 223800, China

Prof. Dr. Benilde F. O. Costa

Department of Physics, Universidade de Coimbra, Rua Larga, 3004-516 Coimbra, Portugal

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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, Pl, Italy

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