crystals

an Open Access Journal by MDPI

IMPACT FACTOR 2.4

CITESCORE 5.0

Applications of Crystal Plasticity in Forming Technologies

Guest Editors:

Prof. Dr. Ulrich Prahl
Institute of Metal Forming, Technische Universität Bergakademie Freiberg, Bernhard-von-Cotta-Straße 4, 09599 Freiberg, Germany

Dr. Sergey Guk
Institut für Metallformung, TU Bergakademie Freiberg, 09599 Freiberg, Germany

Dr. Faisal Qayyum
Institut für Metallformung, Technische Universität Bergakademie Freiberg, 09599 Freiberg, Germany

Deadline for manuscript submissions:
closed (31 July 2022)

Message from the Guest Editors

In this Special Issue, we are looking forward to receiving, editing, and publishing articles from research groups using crystal plasticity-based microstructurally informed numerical models for providing answers to the challenges faced by forming industries, such as rolling, extrusion, and forging. Particularly, we welcome work related to thermo-mechanical treatments. In addition, the simulation of polycrystalline metals and alloys forming at different length scales for modeling of multiscale localization phenomena such as slip bands, cracks, and twins would be of interest.

We would be pleased to consider work related to the adoption of novel techniques that use the integrated framework between experiment and simulation to capture material forming, using materials informatics to interpret large scale datasets and guide continuum or microstructural theory developments.

crystals

an Open Access Journal by MDPI

IMPACT FACTOR 2.4

CITESCORE 5.0

Editor-in-Chief

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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (Crystallography) / CiteScore - Q2 (Condensed Matter Physics)

Contact Us

Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/crystals
crystals@mdpi.com
𝕏@Crystals_MDPI