



## Crystal Plasticity

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### Message from the Guest Editor

The term of “*Crystal Plasticity*” builds a bridge between pure crystallography, materials science, and industrial processing of commonly applied materials pieces (sheets, plates, wires, etc.).

As materials scientists and technologists we focus our efforts on recognizing possible ways to improve materials’ behavior under predicted operational conditions and applied mechanical and/or thermal external loadings. However, this goal can be achieved only by having well-established knowledge on crystal structure evolution upon mechanical and plastic deformation processing.

Nowadays, the research on crystal plasticity-related phenomena is of high practical importance in the view:

- The on-going progress in conventional fabrication techniques (e.g. a cold rolling);
- The design of new processing methods (e.g., various complex severe plastic deformation techniques);
- The development of novel materials (e.g., high-entropy alloys, intermetallics, ultra-finegrained alloys, nano-steels, etc.).

This Issue is dedicated to theoretical and experimental research works providing new insights and practical findings in the field of crystal plasticity-related topics.





# crystals



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## Editor-in-Chief

### Prof. Dr. Alessandra Toncelli

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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.

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