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Deformation and Recrystallization Behaviour of Alloys

Guest Editors:

Dr. Ali Arab

Prof. Baoqiao Guo

Dr. Bin Jia

Prof. Dr. Alexis Rusinek

Deadline for manuscript submissions:
closed (10 October 2023)

Message from the Guest Editors

Dear Colleagues,

Recrystallization is a pervasive transformation phenomenon that is very important in microstructure designs. RX could be defined as the formation of a new grain structure in deformed materials through the formation and migration of high angle grain boundaries driven by the stored energy of deformation. The process of RX of plastically deformed metals or alloys is of central importance in the processing of alloys.

Deformation processing and material factors such as stress accumulation, inhomogeneous strain distribution, microstructural variability, initial grain size, phase composition, stacking fault, lattice distortion energies, strain rate and deformation temperature are at play in determining recrystallization mechanisms and kinetics in alloys.
In this Special Issue, we aim to provide a wide spectrum of articles dealing with the RX phenomenon via experimental or modeling methods. In particular, submissions that combine experimental observations with numerical simulations are encouraged. Studies that aim to develop suitable experimental methods for describing and characterizing RX are welcome.

Dr. Ali Arab
Dr. Baoqiao Guo
Dr. Bin Jia
Guest Editors

mdpi.com/si/148842

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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.

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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
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