

Special Issue

Mechanical Degradation of Advanced Energy-Related Alloys: Processing, Microstructure, and Testing

Message from the Guest Editors

The rising demand for energy and climate change crisis bring many challenges in design and manufacturing of advanced metals and alloys for electric power generation, oil/gas transportation, and hydrogen storage. Development and application of high-performance alloys remains a slow process due to a limited understanding of their mechanical degradation behaviours (i.e. creep, creep-fatigue, low fracture toughness, hydrogen embrittlement) under harsh environments (i.e. elevated temperature, low temperature, corrosive).

I would like to invite you to submit your excellent research works to this Special Issue on “Mechanical Degradation of Advanced Energy-related Alloys: Processing, Microstructure, and Testing” in *Crystals*. This Special Issue of *Crystals* will primarily focus on gaining a deeper understanding of mechanical degradation mechanism of advanced energy-related alloys under harsh environments. Both experimental and modelling contributions as full-length research articles, short communications, and reviews are very welcome.

Guest Editors

Dr. Yiyu Wang

Dr. Xu Xu

Dr. Zaiqing Que

Prof. Dr. Wei Sun

Deadline for manuscript submissions

closed (25 September 2021)



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

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About the Journal

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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