metals

an Open Access Journal by MDPI

IMPACT FACTOR 2.6

CITESCORE 4.9

In Situ X-Ray Diffraction on Metals and Alloys

Guest Editor:

Dr. Guillaume Geandier
Microstructures and Stresses Group, Science and Engineering of Materials and Metallurgy Department of the Jean Lamour Institute, CMRS UMR 7198, Université de Lorraine, Campus Artem, 2 allée André Guinier, BP 50840, CEDEX, 54011 Nancy, France

Deadline for manuscript submissions:
closed (31 May 2019)

Message from the Guest Editor

Dear Colleagues,

With new-generation diffractometers, detectors and synchrotron sources, it is time to focus our research on metals and alloys developed with in situ X-rays methods.

The aim is to describe several kinds of results using original devices that have been developed in laboratories or specially designed for synchrotron beamlines. Results will form a large part of this Special Issue, but some focus is needed on the specificities of the sample environment due to the specificities of the metallic samples and their interaction with X-rays (high absorption, fast or low kinetics of the studied phenomena, etc.) and also the work to be done with the data. In situ analysis means a lot of data to analyze with several constraints (large volume, synchronization of signals, evolution of the sample, multiple analysis, statistics, …)

The main idea of this particular issue is to show the impressive results that can be obtained using in situ X-rays; the work that needs to be done to design (or even use) a sample environment adapted to metals and alloys analysis; the time and work required for data extracted from the complete device.

metals

IMPACT FACTOR 2.6

CITESCORE 4.9

an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang
Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (*Metallurgy and Metallurgical Engineering*) / CiteScore - Q1 (Metals and Alloys)

Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/metals
metals@mdpi.com
𝕏@Metals_MDPI