





an Open Access Journal by MDPI

# Fracture Behaviour of Innovative Materials under Different Environmental Conditions

Guest Editor:

#### Prof. Dr. Filippo Berto

Department of Chemical Engineering, Materials and Environment, Sapienza University of Rome, 00184 Rome, Italy

Deadline for manuscript submissions:

closed (30 November 2017)

## Message from the Guest Editor

Dear Colleagues,

The interest in fracture assessment of steel and other alloys at high temperature and under aggressive environments has increased continuously in the last few years. However, fracture of components under these conditions has not been deeply investigated, experimentally nor theoretically.

The applications in which the fracture phenomenon is affected by high temperature and aggressive corrosive environments are of considerable interest and involve different industrial sectors, such as transportation, energy, and metal-manufacturing (e.g., jet engine components, nuclear power plant, pressure vessel, hot rolling of metal). To provide as optimum a performance as possible in these high demanding conditions, it is necessary to be aware of the application and of proper tools to perform the fracture and fatigue assessment under these conditions.

The present Special Issue aims at filling that gap.

Prof. Dr. Filippo Berto Guest Editor











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 metallurgical field the 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 <u>article processing charges (APC)</u> 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 & Metallurgical Engineering) / CiteScore - Q1 (Metals

and Alloys)

#### **Contact Us**

*Metals* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/metals metals@mdpi.com X@Metals\_MDPI