



Failure Mechanisms in Alloys

Guest Editor:

Dr. George A. Pantazopoulos

ELKEME Hellenic Research
Centre for Metals S.A, Oinofyta
Viotias, Greece

Deadline for manuscript
submissions:

closed (31 August 2019)

Message from the Guest Editor

Dear Colleagues,

In the frame of this Special Issue (“Failure Mechanisms in Alloys”), a valuable insight is aimed to be offered, covering critical subject areas in the field of metals and metallic component degradation processes. Indicative topics included in this thematic area, are the following:

- Microstructural-induced degradation and embrittlement
- Analysis and mechanics of fracture
- Damage evolution at nano- and microstructural level
- Environmentally-induced degradation processes, corrosion, wear and combined mechanisms
- Progressive mechanical failures, creep and fatigue
- Texture and morphology of fracture
- Modeling and simulation of degradation processes
- Failures in new and modern manufacturing processes, e.g., in additive manufacturing and severe plastic deformation
- Novel and modern analysis techniques for failure investigation
- Failure prevention strategies pertaining to microstructure or surface modification

Dr. George Pantazopoulos

Guest Editor





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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.

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Journal Rank: JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q1 (*Metals and Alloys*)

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Metals Editorial Office
MDPI, St. Alban-Anlage 26
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