Special Issue

Fatigue of Intermetallics

Message from the Guest Editor

Intermetallic compounds, typically titanium aluminides, are now actual structural materials in the automotive and aerospace industries. The control of the fatigue strength of these materials is, therefore, a major challenge in order to ensure the integrity of components. This aim of this Special Issue is to present a review of the latest advances in the various aspects of fatigue of intermetallics. We invite contributions on topics that include, but are not limited to:

- Cyclic deformation mechanisms in relation with microstructure;
- Crack initiation;
- Crack propagation;
- Environmental effects on fatigue resistance;
- Creep-fatigue
- Thermo-mechanical fatigue;
- Influence of processing (casting, forging, powder metallurgy, additive manufacturing, etc.) on fatigue strength;
- Specific fatigue design methods and life prognosis.

Guest Editor

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Deadline for manuscript submissions

closed (30 April 2018)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/9963

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About the Journal

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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