Special Issue

Fracture Behaviour of Innovative Materials under Different Enviromental Conditions

Message from the Guest Editor

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.

Guest Editor

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Message from the Editor-in-Chief

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.

Editor-in-Chief

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