Special Issue

Finite Element Analysis and Fracture Control in Steels and Non-ferrous Alloys

Message from the Guest Editors

The integrity and reliability of materials are paramount in numerous engineering applications, from aerospace to civil infrastructure. Steels and non-ferrous alloys are versatile in their applications because of their mechanical properties. Ensuring these materials perform optimally under diverse conditions necessitates a deep understanding of their behaviour under loadings leading to structural failure. The Special Issue 'Finite Element Analysis and Fracture Control in Steels and Non-ferrous Alloys' failure and fracturing, especially steels and non-ferrous alloys that outline current research techniques for comprehending fracture onset, propagation, and control. This Special Issue concerns all research areas that focus on analyzing, modelling, and describing the behavior of materials and structures undergoing a fatal loading. We invite you to propose papers on topics related to the theory of fracture mechanics, experimental testing that accompanies the application of numerical modelling in fracture analysis, further modeling of the failure occurrence and propagation mechanisms.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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