Special Issue

Fatigue and Fracture of Materials

Message from the Guest Editors

Fatigue and fracture of materials such as metals and composites are very common problems to be managed during the design of modern-day complex products and structures. They can provoke unexpected failures or inappropriate behavior of structural components under in-service loading conditions with a shortening of the fatigue life. The aim of this Special Issue is to provide an update to the state-of-the-art on these problems. This Special Issue will present works related to the durability of components subjected to operational load, both those made of metals and composites. Both the complex stress/strain state and its random nature as well as the mean value will be taken into account. In addition, the process of fatigue cracking in notches and welded joints where a complex stress state prevails despite uniaxial loading will be analyzed. Further, fatigue related articles about additively manufactured (AM) elements are welcome here. **Keywords**

- metals
- composite materials
- elastoplastic deformation
- notch
- welded joints

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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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