Special Issue

Advances in Fracture Mechanics and Fatigue of Engineering Materials and Structures

Message from the Guest Editors

Most failures of engineering structures can be ascribed to fracture and fatigue phenomena. Therefore, a deep knowledge of fatigue and fracture behaviour of materials and structural elements is crucial to improve their durability and safety. The development of new materials, such as composite and additively manufactured materials, has prompted many researchers to investigate new approaches for residual life prediction under constant and variable amplitude loading conditions. Moreover, the widespread use of joining techniques requires specific methodologies for simulating fracture response in order to satisfy safety requirements. The focus of the present Special Issue of Materials is on the computational modelling and simulation of fatigue and fracture of engineering components and assemblies and on the investigation of their experimental behaviour. This Special Issue will offer an opportunity for the presentation of recent advances in this field.

Guest Editors

Dr. Michele Perrella

Prof. Dr. Enrico Armentani

Prof. Dr. Gabriele Cricrì

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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