Special Issue

Research Progress of the Fatigue, Crack and Failure Mechanisms of Materials and Structures

Message from the Guest Editors

In recent years, significant advancements have been made in the study of fatigue, crack formation, and failure mechanisms in various materials and structures. Understanding these failure mechanisms is crucial to ensure the safety and longevity of structures and to develop more reliable materials for a wide range of applications. The exploration of failure mechanisms encompasses a diverse array of materials and structures, including metals, polymers, ceramics, composites, and biological tissues. The failure mechanisms encountered in various materials and structures encompass a broad range of phenomena. These include fatigue, corrosion, creep, brittle fracture, material degradation, and other complex processes. Through extensive research and experimentation, researchers have gained a deeper understanding of these mechanisms, leading to the development of innovative materials and structures. We invite researchers and practitioners from various disciplines to contribute their expertise and insights to further enhance our understanding in these areas.

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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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