Special Issue

Fatigue, Fracture and Damages in Micro-Electro Mechanical Systems

Message from the Guest Editor

The study of fracture, fatigue, and damage mechanics is essential for understanding material behavior under various mechanical stresses in micro-electro mechanical systems (MEMS). This Special Issue aims to unite researchers and engineers from multiple disciplines to share insights and advancements in these critical areas of materials science. The issue encompasses a wide range of topics related to the mechanisms of damage evolution, the factors affecting fatigue life in the MEMS applications. Key themes include the development of new materials with improved fracture resistance, innovative experimental methods for assessing fatigue and damage mechanisms and computational modeling approaches that enhance predictive capabilities regarding material failures. Contributions to this Special Issue will provide valuable perspectives on current challenges and future directions in fracture and fatigue research, highlighting the significance of these events in MEMS applications. We invite submissions of original research articles, review papers, and short communications that focus on these themes.

Guest Editor

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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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