Special Issue

Fatigue Behavior of Structural Steel

Message from the Guest Editor

Structural systems or components subjected to repeated loading can experience unanticipated failures resulting from fatigue processes that lead to fracture. Identifying susceptible components, understanding material behavior, and mitigating fatigue damage risk factors are important in the design of steel structures subjected to repeated loading. This Special Issue of Metals covering current advances related to the fatigue behavior of structural steel materials seeks to improve understanding of both high-cycle and low-cycle fatigue processes in structural steels, as well as the resulting effects on structural performance. Research into the fatigue behavior of steel materials, fatigue-life prediction approaches for structural steel components, and fatigue mitigation strategies for steel structures are especially welcome.

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Deadline for manuscript submissions

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Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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