

Special Issue

Failure Behavior in Metals and Alloys

Message from the Guest Editor

This Special Issue will bring together papers in various aspects of failure behavior in metals and alloys to facilitate exchange of recent advances in the field. We welcome papers relating to all aspects of failure behavior of metals and alloys, including but not limited to the following topics: novel experimental testing and numerical methods to characterize fatigue crack formation and multistage growth, mechanisms and growth of fatigue cracks from defects, new multiaxial fatigue life prediction methodologies, new methods for notch root analysis, size and gradient effects, prediction of scatter in fatigue behavior of materials due to variability in materials microstructures and service conditions, mechanisms of micro and macro fracture in advanced materials, design against fatigue damage and failure, multiscale constitutive modeling to simulate fatigue and fracture evolution, high temperature deformation, and techniques to characterize and predict creep fatigue–oxidation interaction, and other topics relating to failure behavior of metals and alloys.

Guest Editor

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About the Journal

Message from the Editorial Board

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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