Special Issue

Application of Fracture Mechanics in Structures

Message from the Guest Editors

Fracture mechanics is a crucial tool for understanding the failure mechanisms of materials and structures, particularly in high-stress or critical applications. This Special Issue aims to provide an in-depth exploration of the latest developments in the application of fracture mechanics to structural engineering. By showcasing cutting-edge research and case studies, the issue will explore how fracture mechanics can be employed to enhance the design, maintenance, and safety of various types of structures. Topics of interest include, but are not limited to the following:

- Fracture toughness and fatigue crack growth in materials;
- Structural integrity assessment and reliability using fracture mechanics;
- Advanced numerical methods in fracture mechanics analysis;
- Experimental techniques for fracture analysis in structures;
- Case studies of fracture mechanics applications in civil, mechanical, and aerospace engineering;
- Failure analysis and damage prediction in structural components;
- Influence of environmental factors (e.g., temperature and corrosion) on fracture behavior;
- Application of fracture mechanics in design codes and standards.

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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