

Special Issue

Health Monitoring of Advanced Materials and Structures

Message from the Guest Editor

Advanced materials are the foundation of advanced structural design, and advanced structures are the technical guarantee of advanced equipment. Advanced materials and structures are used in practical equipment, and their health testing is not only conducive to improving equipment reliability and reducing unplanned downtime; it can also reveal the evolution law of equipment degradation, providing a theoretical basis for material improvement and design. Therefore, this Special Issue focuses on the health monitoring methods and applications of advanced structures and materials, including but not limited to the following areas: state monitoring methods for aircraft, civil engineering structures, medical equipment, wind turbines, and key transmission components of rotating machinery; condition monitoring methods for advanced materials, such as negative Poisson's ratio materials and functionally gradient materials; state monitoring methods based on different perceptual signals such as acoustic emission, guided waves, ultrasound, and radiation; the theory and application of health monitoring under the combination of structural mechanics analysis methods and damage identification.

Guest Editor

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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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