Special Issue

Non-Destructive Testing of Metallic Materials

Message from the Guest Editor

Non-destructive testing and evaluation (NDT&E) is playing an increasingly important role in modern industry. NDT&E is a method that utilizes the physical properties of materials (such as sound, light, magnetism, electricity, etc.) to detect defects, inhomogeneities, and other technical conditions within or on the surface of an object, without damaging or compromising its serviceability. Flaws and impairments in metallic materials have a direct impact on the performance of structures or mechanisms. Hence, performing NDT&E on metallic materials is of paramount importance. This special issue is focused on NDT&E of metallic materials via different NDT&E approaches. Both theoretical research and industrial application are welcome, which should be within, but not limited to, the following fields:

- NDT&E.
- Traditional detection methods, such as ultrasound, radiation, and optics.
- Novel non-destructive testing technique.
- Multimode thermography techniques.
- Signal analysis and feature extraction algorithms.
- Advanced industrial applications.
- Laser ultrasound imaging.
- Theoretical and simulation analysis.

Guest Editor

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Deadline for manuscript submissions

closed (30 June 2025)

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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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