

## Special Issue

# Phase Transformation, Microstructure Regulation and Application Performance Evaluation of Metallic Structural Materials

### Message from the Guest Editors

The Special Issue focuses on the intricate processes of phase transformation, microstructural evolution, and the mechanical and electrochemical performance of various metallic structural materials, including steel, aluminium alloys, titanium alloys, high entropy alloys, and others. This Special Issue also focuses on the relationship between microstructural features and material behaviour, aiming to deepen our understanding of how microstructures can be precisely controlled and optimized. This pursuit is geared towards maximizing the performance of metallic structural materials across a broad array of applications. With a focus on both established materials like steel and emerging alloys and the incorporation of innovative manufacturing processes, this Special Issue contributes significantly to advancing knowledge in the field. By unravelling the complexities of microstructural dynamics and alloy manufacturing, it offers valuable insights for researchers, engineers, and practitioners seeking to push the boundaries of metallic structural materials in various applications.

### Guest Editors

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### Deadline for manuscript submissions

closed (20 January 2025)



## Materials

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### Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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