Special Issue

Advanced Materials Processing Technologies for Lightweight Design

Message from the Guest Editors

This Special Issue aims to explore the latest advancements in material processing technologies that contribute to the development of lightweight designs across various applications. We welcome the submission of papers that examine novel processing methods, the properties of materials, and design strategies that enhance the functionality and applicability of lightweight materials in fields such as aerospace, aviation, automotives, and marine engineering. The scope of this Special Issue includes, but is not limited to, the following topics:

- Additive manufacturing approaches for lightweight components
- The characterization of the microstructure and mechanical properties of advanced materials
- Computational simulation and modeling to optimize material processes
- Advanced joining processes for lightweight material assemblies
- Innovative approaches in casting and forging processes
- Advanced surface treatment and coating technologies
- The application of lightweight design in engineering and manufacturing

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Deadline for manuscript submissions

20 January 2026

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/231964

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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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