

# Special Issue

## Ultrasound Applications in Materials Science and Processing

### Message from the Guest Editor

Following the success of the Special Issue "Ultrasound for Material Characterization and Processing (3rd Edition)," I am pleased to announce a new Special Issue called "Ultrasound Applications in Materials Science and Processing." Ultrasound is used in various fields, from non-destructive material inspection to sonochemical synthesis and welding. It typically falls into two categories: low-intensity-high-frequency ultrasound and high-intensity-low-frequency ultrasound. Low-intensity ultrasound transmits energy through materials to gather or convey information. Today, it is crucial for assessing metals, plastics, aerospace composites, wood, concrete, and cement. High-intensity ultrasound influences the medium through high temperatures and pressures generated by acoustic cavitation. Additionally, ultrasound has a strong link to sustainability, promoting environmental protection, enhancing resource efficiency, and supporting eco-friendly practices across multiple industries.

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### Guest Editor

Dr. Francesca Lionetto

Department of Engineering for Innovation, University of Salento, Lecce, Italy

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### Deadline for manuscript submissions

10 August 2026



## Materials

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## About the Journal

### 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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### Editor-in-Chief

Prof. Dr. Maryam Tabrizian

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