



## Novel Findings on the Damping Capacity of Metallic Materials

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### Message from the Guest Editor

The analysis of damping capacity is one of the most relevant topics in current metallic materials research. While the dissipation of energy by internal friction is fundamental to mitigate vibration related issues in mechanical systems, high damping is not always desirable. An example is the current applications in energy harvest from low amplitude dynamic loads. These considerations reveal that the damping capacity of metallic materials ideally should be tailored to specific applications. Given the current advances on metallic material processing, it is fundamental to analyze their influence on their damping capacity. This Special Issue is devoted to the dissemination of these novel findings and topics include (but are not limited):

- Damping capacity;
- Dynamic mechanical analysis;
- Alloy processing;
- Alloy casting;
- Chemical and physical melt treatment;
- Metallurgy
- Heat treatments;
- Work hardening;
- Additive manufacturing;
- Metal matrix composites;
- Cellular solids;
- Dislocations.





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## 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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