Special Issue

Opto-Acoustic Characterization of Metals

Message from the Guest Editor

This Special Issue focuses on optoacoustic techniques to characterize various properties of metals including metallic compounds and metal matrix composites. Optical and acoustic waves compensate each other. The oscillation frequency of light is orders of magnitude higher than sound. It is relatively easy to find a coherent optical source but not a coherent acoustic source. By combining these contrastive properties of the two waves, we can make an analysis that we would not be able to make with the use of either wave only. The use of an optical source to trigger an acoustic event such as laser acoustic nondestructive testing makes the system remotely operational. The use of an acoustic source to excite vibrations and read out the response with a laser increases the resolution of the analysis. Original research papers and review papers related to the above techniques and findings resulting from the application of these techniques are welcome. Application of optical and acoustic methods to the same study is preferred, but application of an optical or acoustic method is also considered for publication.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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