Special Issue

Ultrasonic Cavitation Treatment of Metallic Alloys

Message from the Guest Editors

This Special Issue aims to scrutinise the use of UST in technology of high-quality metallic alloys with improved mechanical properties, and to assess the driving mechanisms of cavitation-induced effects, such as grain refinement, degassing, wetting, and particle distribution. In this context, the research published in this Issue will consider the interaction between cavitation field and acoustic streaming with the melt flow and the suspended solid/liquid phases, the characterization and mapping of cavitation activity in a melt volume, and the possibility of achieving a high efficiency in processing large melt volumes through technological approaches for the commercial implementation of ultrasonic processing technology. It is our pleasure to invite you to submit a manuscript for this Special Issue. Full experimental or numerical papers, communications, and reviews are all welcome.

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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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