

Special Issue

Cast Irons: Properties and Applications

Message from the Guest Editor

Cast iron is one of the most used material in engineering applications thanks to its good mechanical properties and excellent castability, which allows to obtain very complex geometries without the need of joining or welding operations. Designers often need to know the mechanical properties values in each zone of the casting. In fact, such properties are very different from those declared in the standard classification of the cast iron used. At constant chemical composition, the mechanical properties of a casting will depend on the microstructure, which in turn is ruled by the cooling rate at each point of the casting. On the basis of this background, the proposed special issue is aimed to collect papers dealing with both static and fatigue strength characterization of ductile iron castings and applications in which such kinds of alloys are used. Submissions of works that correlate process parameters, as well as the solidification time with mechanical properties, are strongly encouraged.

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2019)



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About the Journal

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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