



Research on Microstructure and Mechanical Properties in Stainless Steel

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Message from the Guest Editor

Stainless steels have their historical origin and development in the early 20th century. Therefore, as a group of engineering materials it can be said that they are mature. However, there is still much room for development in the applications of this material. In the field of metallurgical technology, one of the factors indicating the level of development is the level of stainless steel production. At present this is a very large group of materials which, for more than 50 years, regardless of prosperity or crisis periods, have constantly seen an annual increase in production of about 5%.

The basic application areas of stainless steels and cast steels are in constructions and elements exposed to aggressive environments. They are widely used in the fields of medicine, energy, nuclear, petrochemical plants, oil and gas offshore applications, chemical plants, pulp and paper industries, and the food industry.

The aim of this Special Issue is to collect high-quality research papers, short communications, and review articles concerning stainless and cast steels' mechanical and functional properties, as well as their microstructural changes and evolution.





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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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