Special Issue

Phase Transformation and Microstructure Evolution in Stainless Steels

Message from the Guest Editor

The current Special Issue is focused on research results involving one or a combination of solid-state phase transformations in stainless steels, irrespective of the nature of transformation and including aging and precipitation reactions and atomic redistribution phenomena. Of particular interest is the deformation-induced microstructure evolution of fully or partially austenitic stainless steels. The phase transformations and microstructure evolutions may have occurred under laboratory conditions or during production or service. Ideally, the phase transformations and microstructural evolutions are not considered in isolation but are correlated with the properties and performance. Submissions making use of theoretical approaches and simulation tools, for instance, thermodynamic and kinetic calculations, or those contributing to the critical assessment of such databases are highly welcome. With your contributions, this Special Issue will offer solutions to some of the existing problems with stainless steels and promote the state-of-the-art on stainless steels.

Guest Editor

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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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