Special Issue

Rejuvenation Heat Treatment of High-Temperature Advanced Alloys

Message from the Guest Editor

The thermomechanical properties of high-temperature advanced alloys are largely affected by their microstructures, which are developed by hightemperature heat treatments. Many of the applications of high-temperature advanced alloys involve complex combinations of stresses and high temperatures in highly corrosive and oxidizing environments that consequently degrade the microstructure and, therefore, the thermomechanical properties. To avoid costly periodic component replacements, hightemperature rejuvenation heat treatments can be applied to restore the microstructures and mechanical properties of degraded advanced alloys, due to the fact that most microstructural degradations are reversible. The application of suitable rejuvenation heat treatments at high temperatures represents a benefit not only in less material waste but also in terms of time reduction and lower energy consumption. The purpose of this Special Issue is to collect works related to rejuvenation heat treatment of high-temperature advanced alloys. It is my pleasure to invite you to submit manuscripts to this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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Message from the Editor-in-Chief

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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