Special Issue

Recent Advance in Creep of Superalloys: From Microstructure to Mechanical Properties

Message from the Guest Editor

This Special Issue is to collect original research work on the assessment of the durability of new and in-operation steels and alloys working under creep conditions. Works describing the influence of the microstructure state on the creep strength of modern steels and alloys that are intended for high temperature operation are desirable. It is advantageous to review the broadly understood subject of assessment of the durability of exploitation directed at testing steels and alloys, as well as their single and unmated welded joints. Topics concern both destructive and non-destructive research techniques. Studies should pay particular attention to the discussion of the methodology used in assessing the durability of the materials tested. Because the creeping qualities are mainly determined by the type of material microstructure, reference should be made to the microstructure and basic mechanical properties. Potential topics include, but are not limited to, the following:

- The development of modern steel and alloys for work in creep conditions
- The methods used in the forecast of operational durability and residual durability
- The assessment of the durability of welded joints

Guest Editor

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Deadline for manuscript submissions

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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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