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Advances in Creep of Metals and Alloys

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Message from the Guest Editors

Dear Colleagues,

In the last decades of the 20th century, some important advances were gained in the understanding of the steady-state creep of metallic materials. However, we are still far from a complete description of the creep of metals and alloys.

In a continuous effort, the scientific community is looking for new approaches to the problem and is seeking to increase the number of tools dedicated to definitively describing the creep behavior of metallic materials. These include the statistical and stochastic treatment of data, the use of simulation and modelling tools (e.g., molecular dynamics, crystal plasticity models, and discrete dislocation dynamics), the application of heuristic and probabilistic optimization, the use of nanoindentation techniques at high temperature, in-situ testing, and new descriptions of materials' microstructures as fractals.

For this Special Issue, we welcome the submission of original research articles, communications, and reviews on recent advances in the creep of metals and alloys, with a special interest in the assessment of models and their application to real components.





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Message from the Editorial Board

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