

Special Issue

Strength Evaluation of Advanced Structural Materials

Message from the Guest Editor

Against the background of increasing requirements for energy efficiency/energy yield of turbines, motors, means of transport, and plants for the generation of renewable energy, the requirements for structural materials used also increase. Strength increase, degree of purity, damage tolerance, predictability of crack formation, and damage progression are just a few of the keywords we are confronted with in every day's work. On one hand, new alloy concepts are tested to meet the increased requirements. On the other hand, known materials are brought into an improved state by advanced processing and/or heat treatment. The developments are happening faster and faster and require an ever deeper insight into the materials we are working with. Many exciting developments in the history of structural materials have been launched. I eagerly await your contributions to this Special Issue, which should bring our common know-how concerning the advanced structural materials and their strength evaluation up to date.

Guest Editor

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About the Journal

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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