Special Issue

Microstructure, Mechanical Properties and Behaviour of Advanced Alloys and Materials for Nuclear Applications

Message from the Guest Editors

We are pleased to invite you to contribute to a Special Issue focused on materials and structures used in nuclear applications. This research area plays a critical role in ensuring the safety, reliability, and sustainability of nuclear power plants and other nuclear facilities. We welcome original research articles and reviews that contribute to the advancement of knowledge in this field. Submissions may cover a wide range of topics including, but not limited to, the following:

- Material degradation mechanisms in nuclear environments;
- Advanced materials for nuclear reactors and fuel cycles;
- Radiation affects on structural materials;
- Modeling and simulation of nuclear materials behavior;
- Novel material synthesis and characterization techniques for nuclear applications;
- Modeling and numerical simulations;
- Constitutive relation related to specific materials.

We look forward to receiving your contributions and to the success of this Special Issue.

Guest Editors

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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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