

Special Issue

Experimental and Theoretical Studies on the Physical Properties of Materials for Nuclear Engineering

Message from the Guest Editors

The purpose of this Special Issue is the creation of a collection of publications that represents recent advances on the data of thermophysical properties needed in nuclear power engineering, viz. data for nuclear fuels (metallic and ceramic), coolants (gases, light water, heavy water, and liquid metals), moderators, absorbers, and structural materials. Special attention will be given to the correlations and equations that are needed for the estimation of material properties, including thermodynamic properties (density, enthalpy, specific heat capacity, melting and boiling points, heat of fusion and vaporization, vapor pressure, thermal expansion, and surface tension), and transport properties (thermal conductivity and thermal diffusivity, viscosity, integral thermal conductivity, electrical resistivity, and emissivity). The detailed material properties for both solid and liquid states will also be of interest.

Another purpose of this Special Issue is to advise the community, in terms of adequate data, on reducing nuclear power plant capital costs and construction periods while further improving performance, safety, and proliferation resistance.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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