Special Issue

Phase Transformation, Functional Properties, and Crystallography of Advanced Materials

Message from the Guest Editors

Solid-state phase transformation, as a classic topic in the field of materials science, has gained considerable attention for a long time. The use of such transformation not only allows substantial enhancement in the mechanical properties of structural materials but also induces some fascinating behaviors to functional materials. The discovery of some related functional activities in particular, e.g., shape memory effect, magnetocaloric effect and elastocaloric effect, has significantly promoted research progress. This Special Issue aims to provide a dedicated platform for sharing results concerning past accomplishments and future directions in the field of phase transformation, functional properties, and crystallography of advanced materials. We welcome review papers and original research articles on alloy design, microstructural characterization, and property tuning of functional alloys, either via experimental techniques or theoretical approaches.

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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