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The Fabrication and Characterization of Thermoelectric and Thermomagnetic Materials

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Deadline for manuscript submissions:
closed (1 March 2021)

Message from the Guest Editors

Thermoelectric and thermomagnetic materials have been the subject of research for two centuries. Combined electron-hole-phonon transport in these materials is of fundamental interest and is the base of direct thermal to electrical power generators and solid-state refrigerators.

In recent years, fabrication and characterization of the nanostructured bulk materials as well as low dimensional materials and their heterostructures have enabled improved thermoelectric and thermomagnetic figures of merit. The discovery of new classes of topological materials, such as time-reversal-symmetry-broken Weyl semimetals, has opened the pathway to and new strategies in the design of highly efficient thermoelectric and thermomagnetic materials and devices. Organic thermoelectrics, in turn, has opened the pathway to large area flexible thermoelectric devices.

In this Special Issue, we invite you to submit your work focused on the strategies to design, fabricate, and characterize highly efficient thermoelectric and thermomagnetic materials and devices, especially with a focus on topological materials, layered materials and heterostructures, and organic thermoelectrics.

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the crystal, where science merges with beauty and innovation.

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