



Nanostructured Thermoelectric Materials (2nd Edition)

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Message from the Guest Editors

In recent years, thermoelectric materials have attracted heightened interest. Thermoelectric efficiency is related to the dimensionless figure of merit, which depends on the Seebeck coefficient, electrical and thermal conductivity, and temperature. One strategy that has been widely applied in order to maximize the figure of merit involves minimizing the thermal conductivity. A detailed description of thermal and electrical transport on the nanoscale, however, is not trivial from a theoretical or experimental perspective, since macroscopic descriptions of transport phenomena are often not valid on the nanoscale. Since both thermal and electrical transport play a crucial role in thermoelectric materials, it is of particular interest to carefully describe the interaction of the two types of carriers, namely electrons, or charge carriers, and phonons.

This Special Issue aims to publish theoretical and experimental studies that may lead to an enhanced understanding of the various scattering mechanisms affecting electrons and phonons, particularly the interactions of the two, and that focus on their effects in nanostructured materials.





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Message from the Editor-in-Chief

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