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Advances in Heat Transfer and Property Characterization of Nano Materials

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Deadline for manuscript submissions:
closed (20 August 2023)

Message from the Guest Editors

Dear Colleagues,

Recently, many new nanomaterials have been discovered and show promising potential applications in nanoelectronics, novel sensors, energy storage devices, etc.

At nanoscales, special attention should be paid to experimentation and simulation. The characteristic dimension of samples is several nanometers, much smaller than the size of sensors. New designs of nanosensors or non-contact measurement techniques with high resolution are essential for an accurate characterization of nanomaterials. On the other hand, some newly discovered nanomaterials, such as layered graphene with a twisted angle, Mxenes, transition metal sulfide, black phosphorus, etc., have unique electronic structures and a complex coupling effect between charge and heat transportation. This introduces new challenges to the traditional molecular dynamics simulation method, as more accurate and intrinsic molecular information should be given using advanced first-principle calculation or artificial intelligence algorithm.

This Special Issue welcomes papers focused on, though not limited to, heat transfer, property characterization, and device fabrication of nanomaterials.

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Message from the Editor-in-Chief

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