

Special Issue

Sustainable Energy Harvesting: New Generation of Thermoelectric Materials and Devices

Message from the Guest Editor

Many emerging technologies, from wearable to healthcare devices, smart homes to smart cities, are progressing towards the use of cost-effective transistors and electronic circuits that can function with minimal energy use, providing solutions for future sustainable society. However, economic and environmental impacts due to large-scale battery use remain a major challenge. Under this context, thermoelectric materials (TE) are called to be a boon to the development of energy harvesting technologies from ambient sources that can help to overcome the aforementioned powering problems. Traditional research on thermoelectric materials is focused on improving the figure-of-merit zT to enhance the energy conversion efficiency. However, other factors such as environmentally friendliness, cost-effective materials, availability, recyclability, thermal stability, chemical and mechanical properties and ease of fabrication have become important for making it a viable technology.

Guest Editor

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