Special Issue

Development and Application of Thermoelectric Power Generators, Energy Harvesters and Refrigerators

Message from the Guest Editors

Thermal energy is one of the most abundant forms of energy. Among energy-conversion technologies, thermoelectric technologies have attracted a lot of interest due to the usefulness in wide temperature ranges, and scalability from micro devices to container-sized systems. Thermoelectric conversion includes power generation and refrigeration, which include heating, ventilation, and air conditioning (HVAC). Thermoelectric power generation is a environmentally clean way. Thermoelectric cooling has the advantages of precise temperature control, fast response times, and multiformity in system sizes. With respect to recovering waste heat for electricity and energy harvesting, thermoelectric modules and system technologies have been rapidly developed.

- Inorganic/Organic thermoelectric modules
- Thermoelectric cooling systems
- Flexible thermoelectric generators
- Thermoelectric power generation systems
- Photovoltaic/Piezoelectric-thermoelectric hybrid generators
- Joining method for thermoelectric module fabrication
- Thermoelectric energy harvesting technologies

Guest Editors

Prof. Dr. Min-Wook OH

Department of Advanced Materials Engineering, Hanbat National University, 125, Dongseo-daero, Yuseong-gu, Daejeon, Korea

Prof. Dr. Byung Jin Cho

Department of Electrical Engineering, Korea Advanced Institute of Science and Technology, 373-1 Guseong-dong, Yuseong-gu, Daejeon 305-701, Korea

Deadline for manuscript submissions

closed (31 October 2017)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/8881

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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