



Energy-Harvesting Microsystems and Microsensors

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Deadline for manuscript
submissions:

closed (15 April 2022)

Message from the Guest Editors

The demand for alternative energy harvesting approaches is increasing day-by-day due to the massive consumption of natural resources and the increase of environmental pollution. A new energy harvesting approach is required to harness energy from biomechanical motion, ocean waves, and wind motion. Triboelectric, piezoelectric energy harvesting systems show the way to generate clean energy, and fabricated devices can use a micro-power source to drive low-power-consuming sensors and systems. Sometimes, nanogenerators can play a dual role, such as energy harvesting and active sensing, to monitor various physical, chemical, and biological stimuli. The performance of all technologies mainly depends on the design and development of efficient nanomaterials, ceramics, polymers, composite materials, and novel design architectures. To reach this goal, new synthesis routes, flexible in-device designs, cost-effectiveness, and improvement in the power density of devices is highly necessary.

This Special Issue aims to present a collection of review and original research articles related to the development of micro energy harvesters and sensors.





sensors



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Message from the Editor-in-Chief

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