Special Issue

Advanced Electrostatic Sensors and Actuators

Message from the Guest Editor

Electrostatics has challenged well-established ideas and substituted them for new concepts for 30 years. Electrostatic phenomena were too often quoted as “poorly understood”, but many recent works have established a much more solid foundation. Now, many important electrostatics-based sensor and actuator devices have been appearing as important solutions for low-power off-grid or stand-alone renewable energy technologies. In fact, mechanical-to-electrical transducers based on piezo-, flexo-, hygro-, or triboelectricity are playing a central role in low-energy power consumption devices, such as Internet of Things (IoT), wearable electronics, and other low power systems. Therefore, this Special Issue aims to showcase research papers and review articles that focus on electrostatic phenomena for the development of sensor and actuator devices, including the modeling for mechanical-to-electrical coupling mechanisms and/or hygroelectricity.

- triboelectric devices
- flexoelectricity
- electromechanical coupling
- hygroelectricity
- sensors and actuators

Guest Editor

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Message from the Editor-in-Chief

Micromachines (ISSN 2072-666X) is a forum for cutting-edge interdisciplinary research on micro and nanoscale science and technology. We emphasise the practical, real-world value of micro and nanotechnologies that will place *Micromachines* in a leading position among engineering and technology journals.

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