Special Issue

Advanced Technology in Nanogenerators and Self-Powered Sensors

Message from the Guest Editors

With the growing demand for sustainable energy and self-powering capabilities in IoT devices, research on nanogenerators and self-powered sensors has gradually become a hotspot and focus. Nanogenerator technology not only provides green energy solutions and drives advancements in fields such as the Internet of Things, smart healthcare, and environmental monitoring, but also promotes innovation in nanomaterials and manufacturing technologies, holding significant scientific value and social application prospects. This Special Issue of *Nanomaterials* aims to present current state-of-the-art developments regarding nanogenerators. We invite original research, reviews, and perspectives involving experimental/simulation investigations, recent developments, and future directions in the fields of nanogenerators, self-powered sensors, and distributed energy harvesting technology.

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Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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