Special Issue

Advanced Nanogenerators for Energy and Electrochemical Applications

Message from the Guest Editors

With the world's demand for diversified clean energy, emerging nanogenerators provide new solutions by converting distributed power sources into electricity for various applications. Their output characteristics and advantages make them excellent tools for self-powered electrochemical applications in a sustainable manner. However, practical applications are still limited by performance, durability, overall energy conversion efficiency, the degree of system integration, and so on. To overcome existing difficulties and upgrade application scenarios, more powerful and innovative nanogenerators need to be developed. This Special Issue, "Advanced Nanogenerators for Energy and Electrochemical Applications", aims to explore advanced nanogenerators with high performance in energy-harvesting and electrochemical applications, especially in synthesis, degradation, sensing, and corrosion protection. We welcome original research work and reviews that contribute to the performance improvement of nanogenerators, enhancing or extending electrochemical applications to a wide variety of self-powered methods.

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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.

Editor-in-Chief

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