Special Issue

Sustainable Energy Harvesting with Nanomaterials

Message from the Guest Editor

This Special Issue focuses on the latest advancements in nanomaterial-based sustainable energy harvesting, encompassing innovative nanomaterial synthesis strategies (e.g., hydrothermal synthesis, atomic layer deposition), structural/electronic property regulation (e.g., heteroatom doping, heterojunction construction), and practical applications in energy conversion (e.g., solar-to-electricity conversion, waste heat recovery, ambient mechanical energy collection). It aims to consolidate cutting-edge research, bridge fundamental insights into engineering applications, and inspire new directions for developing high-performance, low-cost, and eco-friendly nanomaterial-based energy harvesting systems to tackle global energy shortage and environmental sustainability challenges.

Guest Editor

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Message from the Editor-in-Chief

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 nanometerscale 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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