Special Issue

Advances in Nanomaterials for Sustainable and Renewable Energy

Message from the Guest Editors

In recent years, nanomaterials have demonstrated remarkable potential in addressing key challenges in sustainable and renewable energy technologies. Their unique properties at the nanoscale—such as enhanced surface reactivity, tunable porosity, and controlled dispersion of active phases—make them ideal candidates for improving catalytic efficiency, energy conversion, and storage performance. This Special Issue, “Advances in Nanomaterials for Sustainable and Renewable Energy,” aims to present high-quality original research articles and reviews focused on recent breakthroughs in this field. We welcome contributions exploring innovative catalysts with nanodispersed active phases, nanoengineered materials for hydrogen production storage and transportation, CO2 utilization, and ammonia synthesis or decomposition, as well as functional nanomaterials for batteries, supercapacitors, and solar-driven processes.

Guest Editors

Dr. Christian Di Stasi

Instituto de Carboquímica, CSIC, Miguel Luesma Castán 4, 50018 Zaragoza, Spain

Dr. Simona Renda

Catalysis and Reactor Engineering Group (CREG), Aragon Institute of Engineering Research (I3A), Universidad de Zaragoza, 50018 Zaragoza, Spain

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Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

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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 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

Prof. Dr. Eugenia Valsami-Jones
School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

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