

Special Issue

Nanocatalysis for Environmental Protection, Energy, and Green Chemistry

Message from the Guest Editors

Currently, the rational design of nanostructured catalysts provides materials characterized by well-tailored activity/selectivity/stability in applications related to environmental protection and remediation, sustainability, and green energy technologies, as well as green chemical production. This Special Issue aims to host significant advances in the aforementioned areas including, but not limited to:

- Greenhouse gases abatement: CO₂ capture, sequestration, and utilization (CO₂ recycling to methane and renewable fuels, power-to-gas technology); N₂O abatement; CH₄
- Clean energy topics: H₂ production and cleaning of the produced gas stream (CH₄, biogas and hydrocarbons reforming, water-gas shift reaction, preferential CO oxidation reaction, etc.); fuel cells.
- Photo-electro-chemical wastewater and water treatment; photo-electro-chemical CO₂ reduction; electrochemical water splitting.
- Emission control catalysis: De-(NO_x, CH₄, VOCs, H₂S, CO, soot).
- Green chemical production.

This Special Issue also welcomes the submission of papers that will be presented in the "16th Panhellenic Symposium of Catalysis" (<https://www.16psc.tuc.gr>).

Guest Editors

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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