

Special Issue

Symmetry and Optimization in Advanced Wastewater Treatment and Renewable Energy Systems

Message from the Guest Editors

This Special Issue aims to explore the role of symmetry, optimization, and stability in the development of advanced technologies for wastewater treatment and renewable energy systems. The integration of symmetry principles, whether in molecular design, process configuration, or system modeling, offers new opportunities to enhance efficiency, robustness, and sustainability. Recent advances in adsorption, electrocoagulation, biological treatment using microalgae, and hybrid processes demonstrate how symmetry and optimization can improve pollutant removal and resource recovery. Contributions are invited that address theoretical, experimental, and modeling approaches related to process symmetry, energy conversion, and system stability for sustainable environmental engineering applications.

Guest Editors

Dr. Reda Elkacmi

Laboratory of Environmental, Ecological and Agro-Industrial Engineering, Faculty of Science and Technology, Sultan Moulay Slimane University, Beni Mellal, Morocco

Dr. Sudip Chakraborty

Department of Environmental and Chemical Engineering, University of Calabria, Rende, Italy

Deadline for manuscript submissions

31 October 2026



Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.2



mdpi.com/si/261762

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

[mdpi.com/journal/
symmetry](https://mdpi.com/journal/symmetry)





Symmetry

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 5.2



[mdpi.com/journal/
symmetry](https://mdpi.com/journal/symmetry)



About the Journal

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

Prof. Dr. Sergei Odintsov
ICREA, 08010 Barcelona and Institute of Space Sciences (IEEC-CSIC),
C. Can Magrans s/n, 08193 Barcelona, Spain

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within SCIE (Web of Science), Scopus, CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Multidisciplinary Sciences) / CiteScore - Q1
(General Mathematics)