

Special Issue

Recent Technologies and Applications of Sustainable Biomass Energy

Message from the Guest Editor

This Special Issue, entitled "Recent Technologies and Applications of Sustainable Biomass Energy", aims to showcase the latest advancements and innovative applications in the field of biomass energy. The collection of articles included herein highlights cutting-edge research, technological breakthroughs, and practical implementations that demonstrate the potential of biomass energy to address contemporary energy challenges.

The articles featured in this Special Issue also explore the diverse applications of biomass energy across various sectors. From power generation and transportation to industrial processes and residential heating, biomass energy is being harnessed in innovative ways to meet diverse energy needs. Moreover, the integration of biomass energy with other renewable energy sources, such as solar and wind, is examined, highlighting the potential for creating hybrid systems that enhance overall energy efficiency and reliability. **Keywords** sustainable biomass energy; renewable energy; biomass conversion technologies; biofuels; biochemical conversion; anaerobic digestion; biomass applications; hybrid energy systems

Guest Editor

Dr. José Carlos Magalhães Pires

LEPABE—Laboratory for Process Engineering, Environment, Biotechnology and Energy, Department of Chemical and Biological Engineering, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias, 4200-465 Porto, Portugal

Deadline for manuscript submissions

closed (31 March 2025)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/210716

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

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





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



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



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)