

Special Issue

Advances in Biofuels and Bioenergy Production

Message from the Guest Editors

The world dependency on fossil fuels and its undesired consequences in terms of sustainability and climate change are issues of global concern. There is a pressing need to look at alternative and sustainable fuel sources to satisfy the increasing energy demands. Biofuels offer one such alternative. This Special Issue focuses on the conversion of biomass to biofuels. The topics covered are wide-ranging, from potential biomass feedstocks to energy conversion pathways such as thermal and catalytic conversions of various biomass-derived hydrocarbons, transesterification, and pyrolysis. The use of green technology and process optimization and costing will also receive special attention. Topics of interest in this Special Issue include, but are not limited to, the following areas:

- Production of biomass-derived fuels (solids, liquids and gases);
- Bioenergy processes;
- Optimization of sustainable energy systems;
- Socio-economic implications of bioenergy production;
- Green bioenergy technologies;
- Life-cycle analysis of biofuels.

Guest Editors

Prof. Dr. Paul Musonge

1. Institute of Systems Science, Durban University of Technology, Durban 4001, South Africa
2. Faculty of Engineering, Mangosuthu University of Technology, Durban 4031, South Africa

Dr. Yusuf M. Isa

School of Chemical and Metallurgical Engineering, University of the Witwatersrand, Johannesburg P.O. Box 2050, South Africa

Deadline for manuscript submissions

closed (30 July 2024)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/143963

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

mdpi.com/journal/

[appls-ci](https://appls-ci.mdpi.com)





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, CAPlus / SciFinder, and other databases.

Journal Rank:

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