

Special Issue

Optimizing Biomass Supply Chains for Efficient Bioenergy Production: Engineering Solutions for Quality and Quantity

Message from the Guest Editors

The global demand for sustainable energy has led to biomass being viewed as a viable renewable resource. However, raw biomass presents challenges such as variability in moisture, particle size, and chemical composition, affecting its suitability for bioenergy production.

Several factors which influence biomass quality and supply are:

- Production
- Moisture Content
- Bulk Density
- Flowability
- Contaminants
- Harvest and Collection
- Storage and Queuing
- Preprocessing and Pretreatment
- Transportation

This Special Issue explores mechanical, chemical, and thermal, preprocessing and pretreatment technologies or a combination of them, that address these biomass supply chain logistics challenges and supply consistent quality and quantity biomass to biorefineries for their reliable operation. This Special Issue also examines how the quality of biomass affects the performance of biopower, biochemical, and thermochemical conversion pathways.

Guest Editors

Dr. Pramod Pandey

Department of Population Health and Reproduction, University of California at Davis, Davis, CA, USA

Dr. Jagannadh Satyavolu

Conn Center for Renewable Energy Research, University of Louisville, Louisville, KY 40292, USA

Deadline for manuscript submissions

24 October 2025



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/223145

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

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



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



About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, 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, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)