



## Biomass Supply Chain Logistics (BSCL): Advances in Bioenergy Engineering to Address Biomass Quality and Quantity Issues

Guest Editors:

**Dr. Jaya Shankar Tumuluru**

United States Department of Agriculture, Southwestern Cotton Ginning Research Laboratory, USDA-ARS, Las Cruces, NM 88005, USA

**Dr. Igathinathane Cannayan**

Department of Agricultural and Biosystems Engineering, North Dakota State University, Fargo, ND 58102, USA

Deadline for manuscript submissions:

**closed (17 April 2024)**

### Message from the Guest Editors

Dear Colleagues,

The success of biofuel and biochemical industries relies on an economical and reliable biomass supply that meets quality standards. Addressing these issues is critical for productive and sustainable biorefinery operation. Unit operations in biomass supply chain logistics (BSCL), including harvesting methods and pretreatment technologies, improve biomass properties for conversion. Mechanical preprocessing like size reduction and densification is crucial for meeting specifications. Energy-efficient technologies can address storage and handling challenges. High-temperature drying and thermal methods enhance biomass properties. Ash content poses challenges and requires cost-intensive removal. Chemical pretreatment modifies ash composition and aids in mechanical preprocessing. Research on BSCL is in early stages, and capturing advances is crucial. This Special Issue focuses on technology, unit operations, and their impact on quality and cost in BSCL scenarios. It highlights challenges in supplying quality biomass to biorefineries for efficient and sustainable operation.

Dr. Jaya Shankar Tumuluru

Dr. Igathinathane Cannayan

*Guest Editors*





# energies



an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Enrico Sciubba**

Department of Mechanical and  
Aerospace Engineering,  
University of Roma Sapienza, Via  
Eudossiana 18, 00184 Roma, Italy

## 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.

## 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)

## Contact Us

---

*Energies* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/energies](http://mdpi.com/journal/energies)  
[energies@mdpi.com](mailto:energies@mdpi.com)  
[X@energies\\_mdpi](https://twitter.com/energies_mdpi)