



an Open Access Journal by MDPI

Advances in Biomass Preprocessing and Pretreatments and Valorization to Energy

Guest Editor:

Dr. Jaya Shankar Tumuluru

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

Deadline for manuscript
submissions:

closed (15 May 2020)

Message from the Guest Editor

Biomass physical properties and chemical composition impact biofuels production. Particle size, density, chemical composition of biomass are important specifications for both biochemical and thermochemical conversion pathways. Also these properties influence the feeding, handling, storage and transportation.

Size reduction of biomass using grinding equipment helps to meet the desired specifications in terms of particle size. Densification ensures the biomass has a uniform format with consistent physical properties which significantly influence storage, transportation and handling characteristics. Torrefaction, which is a thermal pretreatment method, makes biomass brittle making it easier to grind, changes the chemical composition, and increases the net energy content of the biomass.

The emphasis of this Special Issue is to examine the advances in biomass size reduction, densification and torrefaction technologies and their impact on physical, chemical and energy properties for biofuels production.



mdpi.com/si/7072

Special Issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie

Department of Biomedical
Engineering, Texas A&M
University, College Station, TX
77843, USA

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Bioengineering* (ISSN 2306-5354). *Bioengineering* is published in open access format – research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. *Bioengineering* provides an advanced forum for the science and technology of bioengineering. We would be pleased to welcome you as one of our authors.

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), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Biomedical*)

Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 3.1 days (median values for papers published in this journal in the first half of 2024).

Contact Us

Bioengineering Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/bioengineering
bioengineering@mdpi.com
[X@Bioeng_MDPI](https://twitter.com/Bioeng_MDPI)