BioMed Research International

Special Issue on

Application of Biotechnology for the Production of Biomass-Based Fuels

CALL FOR PAPERS

In response to the energy crisis, global warming, and climate changes, biomass has received a great deal of interest as a promising feedstock for the production of biofuels. Biofuels derived from biomass are renewable and sustainable energies with the potential to replace fossil fuels. In addition, the development of biofuels might reduce a country's reliance on crude oil imports, mitigate greenhouse gas emissions, and increase regional incomes. To determine the stand of the latest available biotechnologies and keep the global academic communities up-to-date to the current advances in the conversion of biomass to biofuels, the journal BioMed Research International will publish a special issue of papers with the focus on the application of biotechnology for the production of biomass-based fuels.

We would like to see articles that address vital current developments in the production of biomass-based fuels through available biotechnologies. We solicit high-quality, original research papers as well as review papers in the fields of biotechnology for the production of biomass-based fuels.

Potential topics include, but are not limited to:

- Application of synthetic biology, including cell and molecular biology and systems biology, such as tissue culture, genetic engineering, DNA-based breeding, and the approaches of various omics (*inter alia* proteomics, transcriptomics, metabolomics, phenomics, and field omics)
- Biomass production, including biomass enhancement methods such as abiotic stress tolerance, cultivation, harvest and drying, storage, transportation, logistics, and biomass management
- Biomass pretreatment, including chemical and physical methods
- Biofuels conversion methods, including enzymatic hydrolysis, transesterification of oils to biodiesel, fermentation, anaerobic digestion, gasification, and pyrolysis
- Separation and process technology, including separation and purification of biofuels and chemicals
- Biomass biorefinery, including the production and recovery of biobased byproducts or coproducts with high values
- Industrial development, including system approaches to cultivation, harvest, supply, and biomass process into bioproducts
- Modelling applied in areas that are listed above
- Economic and environmental analysis of biomass and bioenergy production, including life cycle assessment, environmental impact assessment, net energy efficiency of biofuels systems, and cost-benefit analysis

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/biotechnology/bpbb/.

Lead Guest Editor
Liandong Zhu, University of Vaasa, Vaasa, Finland
zliand@uva.fi

Guest Editors
Ningbo Gao, Dalian University of Technology, Dalian, China
nbgao@dlut.edu.cn

Rong-Gang Cong, Aarhus University, Aarhus, Denmark
rc@envs.au.dk

Manuscript Due
Friday, 27 May 2016

First Round of Reviews
Friday, 19 August 2016

Publication Date
Friday, 14 October 2016