Special Issue

Sustainable Biofuel and Biochemical Production from Lignocellulosic Biomass

Message from the Guest Editors

The terms *lignocellulosic materials* and *lignocellulosic biomass* refer to plant biomass that can originate from various sources. Lignocellulose makes up about 60% of the biomass produced by plants on Earth, and there are numerous possibilities for its biotechnological applications. Lignocellulose consists of cellulose, hemicellulose, and lignin, which can be broken down into simpler components through different pretreatment methods. This conversion turns the biomass into a valuable feedstock for various biotechnological processes. The resulting biofuels (e.g., bioethanol) and biochemicals offer a more sustainable and environmentally friendly option, reducing greenhouse gas emissions and dependence on non-renewable resources. It is essential to develop new efficient processes in which these materials can be used as renewable raw materials while simultaneously creating opportunities for the production of high-value products. Thus, lignocellulose can become the foundation of production processes that are justified from both ecological and economic standpoints.

Guest Editors

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Clean Technologies (ISSN 2571-8797) is an international, open access journal of novel scientific research on technology development aimed at reducing the environmental impact of human activities. *Clean Technologies* publishes reviews, regular research papers, communications and short notes which show a significant advance in the development of sustainable technology that reduces energy consumption, environmental pollution and/or the use of water and nonrenewable resources. Our aim is to encourage scientists to publish their experimental and theoretical research in detail as open access, serving a trustable base of advance for the scientific community.

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