Special Issue

Biomass Energy Conversion for Efficient and Sustainable Utilization

Message from the Guest Editors

Increasingly, biomass is positioned as a strategic resource for energy needs in heating/cooling, electricity generation, transport, and biorefinery feedstock. As a form of renewable energy, they offer advantages such as easy storage and transportation, flexible load management, and versatile applications. This Special Issue on "Biomass Energy Conversion for Efficient and Sustainable Utilization" seeks high-quality works focusing on developing technologies (including pretreatment processes) to convert biomass resources from different origins into solid, liquid, and gaseous forms of biofuels by applying precise, suitable, and innovative approaches. Topics include, but are not limited to, the following: assessing bioenergy supply chain effectiveness, including generation and utilization; thermochemical, physicochemical, and biochemical biomass conversion and hybrid system technologies for valuable energy products; manufacturing advanced biofuels as key alternative for green sustainable biomass products; bioenergetic valorization of biomass waste towards sustainability and zero waste; biomass pretreatment processes to optimize bioenergy production and utilization.

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