

Special Issue

Biomass Pretreatment for Thermochemical Conversion

Message from the Guest Editors

Biomass fuels are recognized as renewable sources that may be converted to biofuels, chemicals, and heat and power through chemical and thermal conversion. Feedstock variability is a serious barrier to scaling up and commercialization. Further serious adverse factors are related to various inherent biomass properties, such as high moisture level; low bulk density; irregular shape and size; hydrophilic nature; low calorific value; and significant contents of problematic constituents, including sulphur, chlorine, alkalis, nitrogen, and heavy metals. To overcome these drawbacks, physical, thermal, and chemical methods of pretreatment are proposed (grinding, densification, demineralization, dry and wet torrefaction, acid or alkali treatment, steam explosion, etc.). This Special Issue aims to address the development/optimization and application of biomass pretreatment methods and their influences on thermochemical conversion processes and products.

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