Special Issue

Plant-Derived Biomass Catalytic and Biocatalytic Transformation into Biorefinery Products

Message from the Guest Editors

The transformation of plant biomass into products of interest to humankind is evident in the agriculture, food, cosmetics, pharmacological, and chemical industries, the base of first- and second-generation biorefineries. In this framework, thermal, catalytic, and biocatalytic processes are being designed and implemented to transform readily available and reactive biomass (first generation) and refractory, but abundant, plant biomass (second generation) into chemicals, materials, energy, food, and feed through holistic and ideally sustainable processing. This Special Issue is devoted to all these bio/catalytic processes, including, among other related subjects, bio/catalyst design and characterization, process creation, optimization, and/or implementation, kinetic and/or thermodynamical modelling, batch, fed-batch, and continuous or in-flow operation, bio/reactor design and operation, and technoeconomic analysis of processes based on plant biomass and focused on all products of interest.

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