Special Issue

Green Processing of Lignocellulosic and Food Waste in Biorefinery and Circular Bioeconomy: The Role of (Bio)Catalysts

Message from the Guest Editors

This Special Issue focuses on utilizing biotechnologically relevant enzymes or catalysts for processing agro-industry and food wastes, including fruit, vegetable, meat and poultry, to value-added products with the potential for commercialization. We welcome submissions related, but not limited to, the following themes of interest:

- Application of carbohydrate-active enzymes and proteolytic enzymes in agriculture, food, feed and the biofuel/chemical industry
- Production of biofertilizer, bio-composting and biocontrol agents using hydrolytic enzymes and microbes
- Effects of pretreatment methods on biomass structure and enzymatic activity
- Production of a protein hydrolysate, antioxidant and antimicrobial peptides
- Production of antioxidants and antimicrobial lignin
- Development of enzymatic processes or physicochemical processes using green catalysts or solvents for polysaccharide and protein extraction
- Enzymology of carbohydrate-active enzymes, proteolytic enzymes and lipases
- Development of protein expression and hosts for expressing enzymes, as well as techniques for increasing enzymatic activity and stability
- Modular structures and substrate–enzyme interactions

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