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Modular Structures of Carbohydrate-Active Enzymes and Their Applications

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Deadline for manuscript submissions:
closed (20 February 2023)

Message from the Guest Editors

The bioconversion of lignocellulosic biomass into simple sugars for subsequent fermentation is an essential platform for the sustainable production of biofuels and biochemicals.

This Special Issue focuses on the modular structure of carbohydrate-active enzymes, the architecture of the entire protein structures, and their biological functions during catalysis. We welcome the submission of research articles, reviews, and perspectives related, but not limited to, the following themes of interest:

- Protein expression and development of hosts for expressing enzymes
- Enzymology of carbohydrates active enzymes and the cellulosome system
- Application of CBMs in protein purification, biomass characterization, or biomarker/reporter
- Application of carbohydrate-active enzymes in agriculture, food, feed, and the biofuel/chemical industry
- Modular structures and substrate–enzyme interactions
- Techniques for increasing enzymatic activity and stability
- Computational tools for designing enzymes
- Effects of pretreatment methods on biomass structure and enzymactic acitivity

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Special Issue