

Tentative Outline

Special Thematic Issue for the journal : Protein and Peptide Letters

Title of the Thematic Issue: Enzymes for biofuels and bioethanol production

Sectional Editor: Dr. Diego F. Gomez-Casati

Scope of the Thematic Issue:

There is a growing interest in the industry for the use of new enzymes with distinctive characteristics to be applied to new processes. Thus, it becomes highly important to identify and characterize the biochemical, structural and regulatory properties of enzymes that may be of biotechnological utility. Enzymes involved in biofuel and bioethanol production are of particular interest. The objective of this special issue is to report the recent advances on the study of enzymes involved in the production of biofuel, including protein engineering studies of known enzymes, identification of new enzymes, as well as the advances in their applications in different industrial processes.

Keywords

biofuel, bioethanol, enzyme discovery, starch, cellulose, amylases, cellulases

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- identification and characterization of new enzymes
- engineering of enzymes
- protein structure-function studies
- enzymatic processes of food for biofuels production
- immobilized enzymes for biofuel production

Tentative titles of the articles

- Engineering starch-degrading enzymes for bioethanol production.
- Improving enzyme catalysis for biofuels production
- Plant starch metabolism
- Cold-adapted enzymes applications in biofuel production
- Applications of phosphatases in starch degradation
- Immobilization of enzymes for biofuel production
- Nanomaterials immobilized enzymes for biofuel production
- Evolution of enzyme catalysis
- Structure-function of starch degrading enzymes.
- Modification of metabolic pathways for biofuel production

Schedule:

- Thematic issue submission deadline: July 30th, 2023

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