

Special Issue

Microbial Enzymes—Tools for Biotechnological Processes

Message from the Guest Editor

This Special Issue aims to display global and current contributions to the field of microbial enzymatic biotechnology. This issue will showcase the main and recent advances, as well as future perspectives, in the study and application of microbial enzymes in various biotechnological processes. The main scop of this issue is to focus on three thematic axes: (1) emergent molecular and computational tools applied to enzymes studies, including CRISPR, bioinformatics synthetic biology, AI, and modeling of metabolic pathways; (2) the mechanism of the production, expression, and engineering of enzymes, including precision fermentation, cloning in homolog and heterology systems, site-direct mutagenesis, and rotational design of proteins; and (3) industrial applications of microbial enzymes in the food, pharmaceutical, energy, textile, paper, and environmental sectors. In addition, regulatory aspects, environmental considerations, and integrative approaches with omics technologies and conventional technologies (i.e., enzyme immobilization) will be considered, highlighting the role of microbial enzymes in circular economies and sustainability.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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