Special Issue

The Improvement of Biocatalysis: Enzyme and Reaction Medium Modification

Message from the Guest Editors

Chemical reactions catalyzed by enzymes are important because of the rate and stereospecificity of transformation. Biocatalysts are a greener alternative to traditional synthesis that offers a tool for the transformation under mild reaction conditions, low energy requirements and minimizing the problems of isomerization and rearrangement. However, the application of enzymes is often limited because of the harsh reaction medium conditions, and the use of non-conventional solvents. In recent decades, a new paradigm of biocatalysis was presented to overcome enzyme deactivation or a dramatic drop in catalytic activity. The new paradigm required modification and matching of enzyme properties to bioprocess requirements.

This Special Issue aims to contribute to the current knowledge in the field of biocatalysis, e.g., in pharmacy, food industry and environmental application. Articles focusing on the improvement of the efficiency of biocatalysts and enzymatic processes, bioinformatics, and protein engineering are welcomed. In this Special Issue, we invite the submission of original research articles and reviews.

Guest Editors

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