



Design of Biocatalytic System in Bioprocess Engineering

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Message from the Guest Editors

The design of the biocatalytic system in bioprocess engineering is a critical initial step in green biomanufacturing for the synthesis of chemical products, medical products, natural products, and flavor food. Feedstock, reaction medium, and biocatalysts are three main aspects that affect the reaction efficiency of the biocatalytic system. Therefore, its design needs to systematically the roles and interactions between these aspects. In order to synthesize high-value products, whole-cell catalysts, multi-enzyme catalysts, nano-biocatalysts, and the immobilization of biocatalysts have shown remarkable application value in the aqueous phase system, organic phase system, ionic liquid system, two-phase system, deep eutectic solvent system, and non-solvent system.

- novel biocatalysis platforms
- whole-cell catalysis
- multi-enzyme catalysis
- nano-biocatalyst
- immobilization of biocatalysts
- non-aqueous biocatalysis
- biocatalytic synthesis of natural products
- biocatalytic synthesis of chemical products
- biocatalytic synthesis of medical and health products
- application of biocatalysis in food





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Message from the Editor-in-Chief

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