Special Issue

New Potential Applications of Enzymes in Biocatalysis and Next Challenges for a Green Chemistry

Message from the Guest Editors

Enzymes, natural catalysts known for their catalytic efficiency, selectivity and high substrate specification, have been successfully explored in various biocatalytic processes. Ezymes isolated/purified from different biological sources (animals, plants, and microorganisms) can work actively, in vitro, in numerous biocatalytic reactions. Enzyme-assisted reactions are safe for health and environmentally friendly due to the excellent selectivity of the substrate, thus reducing the number of by-products and also through achieving mild reaction conditions. By performing reactions in water under ambient conditions, both the use of organic solvents and energy consumption are minimized. Hence, biocatalysis has been recognized as a green technology. This Special Issue will focus on research papers or reviews that reflect the state of research in the field of biocatalysis. The potential topics include but are not limited to the following: synthesis catalysed by enzymes, plant enzymes, whole cells or microorganisms as catalysts, enzymes in green chemistry reactions, mechanisms of biocatalytic synthesis, biocatalytic multi-component (MCRs) reactions, new sustainable biocatalytic reactions.

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