

Special Issue

Design and Application of Biocatalysts: Emerging Advances and Innovations in Enzyme Immobilization and Technologies

Message from the Guest Editor

This Special Issue focuses on innovative, low-cost enzyme immobilization methods, including bioimprinting, post-immobilization activation, multi-enzyme or multilayer immobilization, cross-linking to prevent leaching, CLEAs encapsulation, and strategies to enhance enzyme activity and stability. Studies characterizing enzymes in reactions relevant to industrial synthesis or environmental remediation are encouraged, with emphasis on solvent-free processes, biodegradable polymer (de)polymerization, and synthesis of polyfunctional carboxylic acid derivatives. Comparisons between traditional and innovative activation methods are welcome. Key interests include low-cost supports from biomass, degradable biopolymers, composites, magnetic nanomaterials, and inorganic–organic hybrids (e.g., nanoflowers). Novel, low-cost cross-linkers (e.g., tripolyphosphate) and non-toxic reaction media are preferred. While focused on experimental research, reviews on underexplored areas providing updated perspectives or mechanistic insights are also welcome.

Guest Editor

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Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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