

Special Issue

Advanced Research on Enzymes in Biocatalysis

Message from the Guest Editors

Biocatalysis represents a key technology for sustainable and efficient chemical processes, leveraging the remarkable specificity and catalytic power of enzymes. From industrial bioprocesses to novel biorefinery strategies, enzyme-based approaches are transforming sectors such as pharmaceuticals, food, biofuels, and materials science. This Special Issue aims to highlight cutting-edge advancements in enzyme engineering, bioprocess development, and computational strategies to optimize biocatalytic systems. We welcome contributions on enzyme discovery, immobilization techniques, cascade biocatalysis, and innovative bioprocessing approaches. Topics of interest include molecular and computational design of enzymes, machine learning-assisted enzyme engineering, and applications of enzymatic catalysis in green chemistry and biomass valorisation. By bringing together experimental and theoretical insights, this issue will provide a comprehensive view of current trends and future directions in biocatalysis. Researchers in academia and industry are invited to contribute original research articles, reviews, and short communications.

Guest Editors

Dr. Simona Varriale
Dr. Samuel De Visser
Dr. Salvatore Fusco

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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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