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Enzyme Bioreactor Design

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Message from the Guest Editors

Enzyme catalysis has been exploited in many industrial applications. In particular, technologies for immobilization of enzymes and their use as industrial biocatalysts in multiphase reactors offer numbers of opportunities to develop new enzymatic processes in most of the fields having central role in the establishment of green economy. Among these fields, biorefinery platforms, CO₂ capture and utilization processes, bio-based productions of commodity chemicals can be enriched with novel strategies and technologies based on the use of enzyme biocatalysts. The successful development of enzymatic processes up to industrial scale is strongly related to the design of bioreactors configurations enabling the efficient use of the enzyme biocatalyst. This special issue is intended for research and review articles on enzyme bioreactors design and development. Contribution dealing with but not limited to enzyme bioreactors for the following applications are welcome.

- Biorefinery processes
- Novel enzyme technologies for CO2 utilization purposes
- Bio-based product, continuous production and downstream integration
- Multiphase systems for enzyme use in non-aqueous solvents

