



## Industrial Biocatalysis: Challenges and Opportunities

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### Message from the Guest Editor

Dear Colleagues,

During the last few decades, industrial biocatalysis has largely demonstrated its huge potential as a green alternative to traditional production methods by allowing the development of several biocatalyzed sustainable and selective manufacturing processes in the chemical, pharmaceutical, food, and cosmetics industry. The widespread application of biocatalysis has been also encouraged by the impressive advances in the availability of both native and tailor-made enzymes that can be obtained today by (meta)genomes mining and biocatalyst engineering. However, the development of novel biocatalytic applications and their integration in existing manufacturing processes still poses several challenges to be faced. In particular, significant efforts will be required (a) to speed up the “sequence-to-function” identification of biocatalysts with the desired activity as well as suitable operational stability; (b) to benchmark the developed processes to estimate the “real” sustainability improvement when compared to existing processes;

