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Sommario/riassunto

The second volume of the Book-Industrial Microbiology and Biotechnology covers various emerging concepts in microbial technology which have been developed to harness the potential of the microbes. The book examines the microbes-based products that have widespread applications in various domains i.e., agriculture, biorefinery, bioremediation, pharmaceutical, and medical sectors. It focusses on recent advances and emerging topics such as CRISPR technology, advanced topics of genomics, including functional genomics, metagenomics, metabolomics, and structural and system biology approaches for enhanced production of industrially relevant products. It further gives an insight into the advancement of genetic engineering with special emphasis on value-added products via microalgal systems and their techno-economics analysis and life cycle assessment. The book towards the end presents recent advancements in the use of microbes for the production of industrial relevant enzymes, amino acids, vitamins, and nutraceuticals, on vaccine development and their biomedical applications. The book is an essential source for researchers working in allied fields of microbiology, biotechnology, and bioengineering.