DESCRIPTION

Process Biochemistry is an application-orientated research journal devoted to reporting advances with originality and novelty, in the science and technology of the processes involving bioactive molecules and living organisms. These processes concern the production of useful metabolites or materials, or the removal of toxic compounds using tools and methods of current biology and engineering. Its main areas of interest include novel bioprocesses and enabling technologies (such as nanobiotechnology, tissue engineering, directed evolution, metabolic engineering, systems biology, and synthetic biology) applicable in food (nutraceutical), healthcare (medical, pharmaceutical, cosmetic), energy (biofuels), environmental, and biorefinery industries and their underlying biological and engineering principles.

Main topics covered include, with most of possible aspects and domains of application:

- Fermentation, biochemical and bioreactor engineering
- Biotechnology processes and their life science aspects
- Biocatalysis, enzyme engineering and biotransformation
- Downstream processing
- Modeling, optimization and control techniques.

Particular aspects related to the processes, raw materials and products, also include:

- Quantitative microbial physiology, stress response, signal transduction
- Genetic engineering and metabolic engineering
- Proteomics, functional genomics, metabolomics, and bioinformatics
- Chiral compounds production, cell free protein system, high-throughput screening, in-vivo/in-vitro evolution, enzyme immobilization, enzyme reaction in non-aqueous media
- Mass transfer, mixing, scale-up and scale-down, bioprocess monitoring, bio-manufacturing
- Cell, tissue and antibody engineering: animal and plant cells/tissues, algae, micro-algae, extremophile, antibody screening and production
- Environmental biotechnology: biodegradation, bioremediation, wastewater treatment, biosorption and bioaccumulation
- Bio-commodity engineering: biomass, bio-refinery, bio-energy
- Bioseparation, purification, protein refolding.
- Other new bioprocess and bioreactor related topics especially on application to healthcare sectors
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INTRODUCTION
Process Biochemistry is an application-orientated research journal devoted to reporting advances with originality and novelty, in the science and technology of the processes involving bioactive molecules and living organisms. These processes concern the production of useful metabolites or materials, or the removal of toxic compounds using tools and methods of current biology and engineering. Its main areas of interest include novel bioprocesses and enabling technologies (such as nanobiotechnology, tissue engineering, directed evolution, metabolic engineering, systems biology, and synthetic biology) applicable in food (nutraceutical), healthcare (medical, pharmaceutical, cosmetic), energy (biofuels), environmental, and biorefinery industries and their underlying biological and engineering principles.

Main topics covered include, with most of possible aspects and domains of application: cell culture and fermentation, biochemical and bioreactor engineering; biotechnology processes and their life science aspects; biocatalysis, enzyme engineering and biotransformation; and downstream processing.

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