PROCESS BIOCHEMISTRY

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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.
IMPACT FACTOR

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CAB International
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GUIDE FOR AUTHORS

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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.

Manuscripts and data using response surface methodology (RSM) which are mainly descriptive, without any physiological or systemic explanation or correlations are not suitable for submission to the journal.

Types of paper
Process Biochemistry accepts three types of manuscripts: Full length articles, Short communications, Reviews and Correspondence.

Full length articles should not generally exceed 25 double-spaced pages of text (not including the references) and should not contain more than 15 figures and/or tables.

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A cover letter should be submitted on-line by the authors together with the manuscript, which includes the following points: 1) all authors agree to submit the work to Process Biochemistry, 2) the work has not been published/submitted or being submitted to another journal, 3) the novelty and significant contribution of the submitted work are briefly described.

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