Special Issue

Mathematical Modeling and Control of Bioprocesses

Message from the Guest Editors

This Special Issue on Mathematical Modeling and Control of Bioprocesses aims at presenting novel scientific contributions to mathematical modeling in major areas of biotechnologies, including biological cultures in biopharmaceutical or in agro-food industries, environmental bioprocesses, biomass valorization processes, etc. Contributions may focus either on the development of the mathematical model itself and/or the modeling procedure (new model structures, model identification), or on the use of mathematical models for bioprocess supervision, diagnosis, state observation, operation, optimization, and control. Mathematical models at macroscopic or at microscopic levels may be considered. In this latter category, the analysis of metabolic networks is a topic of particular interest. Mathematical models or, in contrast, data-driven techniques can be the basis to determine desirable operating conditions and to design optimizing control strategies, which is the second set of topics of this Special Issue.

Guest Editors

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