



*processes*

an Open Access Journal by MDPI



## Advanced Modeling of Biomanufacturing Processes

Guest Editors:

### **Dr. Giannis Penoglou**

1. Department of Environmental Engineering, International Hellenic University (IHU), Sindos, EL-57400 Thessaloniki, Greece

2. Chemical Process and Energy Resources Institute—CPERI/LPRE, Centre for Research and Technology Hellas—CERTH, 57001 Thessaloniki, Greece

### **Dr. Alexandros Kiparissides**

Department of Chemical Engineering, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece

Deadline for manuscript submissions:

**closed (30 June 2023)**

### **Message from the Guest Editors**

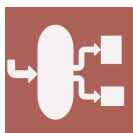
The aim of this special issue of *Processes* is to attract high-quality original research contributions and review articles in the field of advanced bioprocess modeling of bio-based manufacturing processes. The objective is to demonstrate the significance of existing and novel simulation tools to qualitatively comprehend and describe complex biochemical and biological mechanisms and quantitatively predict and optimize the production of valuable chemicals, proteins or enzymes. Specific topics for the special issue include but are not limited to:

- Modeling and intensification of microbial, mammalian, algal and enzymatic production processes.
- Upstream and downstream bioprocess simulation, control and optimization.
- Innovative concepts for integrating multiple models at different scales.
- Advanced numerical methods for model calibration and simulation of complex bio-based systems.
- Analysis and validation of multi-scale models and simulations.
- Integrated multi-scale simulation platforms for whole-process sustainability analysis.



[mdpi.com/si/56890](https://mdpi.com/si/56890)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Giancarlo Cravotto**

Department of Drug Science and  
Technology, University of Turin,  
Via P. Giuria 9, 10125 Turin, Italy

## Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.

**Journal Rank:** CiteScore - Q2 (Chemical Engineering (miscellaneous))

## Contact Us

---

Processes Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/processes](http://mdpi.com/journal/processes)  
[processes@mdpi.com](mailto:processes@mdpi.com)  
[X@Processes\\_MDPI](https://twitter.com/Processes_MDPI)