



*processes*



an Open Access Journal by MDPI

## Process System Engineering 4.0

Guest Editors:

**Dr. Idelfonso B. R. Nogueira**

Department of Chemical Engineering, Norwegian University of Science and Technology, 7034 Trondheim, Norway

**Prof. Dr. Alexandre F. P. Ferreira**

Laboratory of Separation and Reaction Engineering (LSRE), Department of Chemical, Faculty of Engineering of the University of Porto (FEUP), Porto, Portugal

**Prof. Dr. Márcio A. F. Martins**

Departamento de Engenharia Química, Escola Politécnica, Universidade Federal da Bahia, Salvador 40210-630, BA, Brazil

Deadline for manuscript submissions:

**closed (21 March 2023)**

### Message from the Guest Editors

Process System Engineering (PSE) is a consolidated field that provides the backbone for large-scale industrial production. The present social dynamics require the industry to quickly respond to external changes with the flexibility to reconfigure itself while constantly optimizing and controlling its processes.

In this scenario, several new technologies are emerging to address these issues. This is promoting the 4th Industrial Revolution, so-called Industry 4.0. The synergy between these new technologies and PSE fosters the emergence of a new field, Process System Engineering 4.0. In this context, this Special Issue aims to promote and discuss the new developments in PSE. Its goal is to address the most recent advancements in PSE 4.0 and future perspectives in this field. Hence, this Special Issue will promote the debate surrounding the multidisciplinary intersection between PSE 4.0 and topics such as: scientific machine learning; advanced control systems; optimization theory; high-performance computing; distributed systems; digital twins; cyber-physical systems.



[mdpi.com/si/116491](https://mdpi.com/si/116491)

# 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)