

## Special Issue

# Representative Model and Flow Characteristics of Fuel Cells

### Message from the Guest Editors

Fuel cells (FCs) play an important role in the development of green energy, and have drawn much attention during the past decade. They have been widely employed as power sources for electric vehicles, unmanned aerial vehicles, underwater vehicles, and other power generation systems. Recently, FC research has focused on cost reduction and durability improvement to enhance FC commercialization. The cost and performance of FCs are influenced by many factors, including materials of key components, structures of membrane electrode assemblies, manufacturing processes, and operating conditions. How these factors influence the electrochemical reaction within the FC is an interesting and essential topic for the development of FCs. This special Issue aims to showcase recent progress and breakthroughs in the cost reduction and performance improvement of FCs, including both high- and low-temperature FCs. For this special Issue, we welcome and encourage contributions covering representative models or experimental studies that can capture flow characteristics, catalytic activity, gas management, energy efficiency, and degradation mechanisms.

### Guest Editors

Prof. Dr. Yong-Song Chen

Department of Mechanical Engineering, National Chung Cheng University, Chiayi 62102, Taiwan

Dr. Amornchai Arpornwichanop

Center of Excellence in Process and Energy Systems Engineering, Department of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, Bangkok 10330, Thailand

### Deadline for manuscript submissions

closed (10 July 2021)



## Processes

an Open Access Journal  
by MDPI

Impact Factor 2.8  
CiteScore 5.5



[mdpi.com/si/32706](https://mdpi.com/si/32706)

*Processes*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[processes@mdpi.com](mailto:processes@mdpi.com)

[mdpi.com/journal/  
processes](https://mdpi.com/journal/processes)





# Processes

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.5



[mdpi.com/journal/  
processes](https://mdpi.com/journal/processes)



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

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

---

### 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:

JCR - Q2 (Engineering, Chemical) / CiteScore - Q2 (Chemical Engineering (miscellaneous))