

Special Issue

Recent Advances in Green Hydrogen Production Processes

Message from the Guest Editor

The Intergovernmental Panel on Climate Change Special Report (IPCC, 2018) was addressed to governments in relation to reducing the greenhouse gas (GHG) emissions and limiting global warming to 1.5 °C above pre-industrial levels. The report stressed the need for a global shift from conventional to renewable energy due to increasing energy demand, fossil fuel scarcity, high costs, and environmental concerns. Such a transition can lay the groundwork for decarbonization targets and achieve net-zero CO₂ emissions by 2050. This report addressed the production and utilization of hydrogen gas, because this is the only fuel without GHG emissions. In particular, if it is produced from renewable energy sources, including hydroelectric, wind, solar, biomass, and biogas, it is the cleanest fuel and is called green hydrogen (GH₂).

In this Special Issue, original research articles and reviews are welcome. Articles on GH₂ production are welcome, as well as any report containing information on GH₂ production such as photofermentation, biomass fermentation, and water electrolysis, which are powered by hydroelectric, photovoltaic, wind, or geothermal energies.

Guest Editor

Prof. Dr. José Carlos Curvelo Santana

Department Industrial Engineering, Federal University of ABC, Av. dos Estados, 5001 Bangú, Santo André 09280-560, SP, Brazil

Deadline for manuscript submissions

31 October 2025



Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



mdpi.com/si/230792

Processes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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:

CiteScore - Q2 (Chemical Engineering (miscellaneous))