Special Issue

Process Design Issues for Hydrogen Production: From Catalyst Design to Reactor Modelling and Process Simulation

Message from the Guest Editors

Hydrogen is used throughout the entire chemical industry as a chemical, and it is also raising attention as an alternative fuel. Its production can spread from technologically, well-assessed routes, from fossil sources, to different possible alternative scenarios, such as the use of renewable biofuels, the splitting of water (photo-catalytic, electro-catalytic, or thermal), and biochemical pathways. Catalysis plays a key role in all them. The interest recently shifted also from centralized production to distributed generation or microgeneration, to cope with on-site production needs. Therefore, we welcome contributions regarding all the different technologies for hydrogen production, which may be focused on the following topics (but not limited to them):

- process design issues for hydrogen production
- kinetics
- reactors sizing and modelling (including microreactors)
- process simulation (either in steady state conditions or dynamic)
- life cycle assessment
- process control
- scale up issues, prototypes and demonstrative units
- design of catalytic materials for the production of hyd

Guest Editors

Prof. Dr. Ilenia Rossetti

Chemical Plants and Industrial Chemistry Group, Dipartimento di Chimica, Università degli Studi di Milano, Via C. Golgi 19, 20133 Milan, Italy

Prof. Dr. Gianguido Ramis

Dipartimento di Ingegneria Chimica, Civile ed Ambientale, Università degli Studi di Genova and INSTM Unit Genova, Via all'Opera Pia 15A, 16145 Genoa, Italy

Deadline for manuscript submissions

closed (16 April 2018)

ChemEngineering

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 4.9

mdpi.com/si/9516

ChemEngineering
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
chemengineering@mdpi.com

mdpi.com/journal/ChemEngineering

ChemEngineering

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 4.9

mdpi.com/journal/ChemEngineering

About the Journal

Message from the Editor-in-Chief

ChemEngineering is to consolidate its position as a high-quality, open access journal that not only disseminates excellent research but also sets the agenda for future directions in chemical engineering. We will continue to highlight core areas such as catalysis, process intensification, and the circular economy, while also opening the door to emerging topics such as multi-energy systems that integrate light, heat, and electricity, etc., as well as digital tools, modelling, and artificial intelligence applied to chemical engineering.

Editor-in-Chief

Prof. Dr. Mario J. Muñoz Batista
Department of Chemical Engineering, Faculty of Sciences, University of Granada, Avda. Fuentenueva, s/n, 18071 Granada, Spain

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Chemical) / CiteScore - Q1 (General Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 32.8 days after submission; acceptance to publication is undertaken in 6.6 days (median values for papers published in this journal in the second half of 2025).