processes

an Open Access Journal by MDPI

IMPACT FACTOR 2.8

CITESCORE 5.1

Waste Valorization for Hydrogen Production: Advances in Reforming Catalysts

Guest Editors:

Dr. Aitor Arregi
Department of Chemical Engineering, University of the Basque Country UPV/EHU, P.O. Box 644, E48080 Bilbao, Spain

Dr. Laura Santamaria
Department of Chemical Engineering, University of the Basque Country UPV/EHU, P.O. Box 644, E48080 Bilbao, Spain

Deadline for manuscript submissions:
closed (10 March 2022)

Message from the Guest Editors

H_2 production from wastes will be a way of solving near future problems that involve the increasing demand of this raw material in industry; in addition, it has a potential use as an energy carrier. In this scenario, wastes, such as biomass and plastics, are attractive raw materials for producing renewable H_2 with lower emission of greenhouse gases than by reforming natural gas, which is currently the main route for H_2 production. Amongst the different conversion methods, one-step thermochemical routes (pyrolysis or gasification) are especially interesting for their industrial implementation and allow the obtainment of high H_2 yields. An interesting alternative to the aforementioned strategies lies in performing pyrolysis and reforming steps using two in-line reactors, which allow for establishing the optimum conditions in each step for obtaining almost all the hydrogen contained in the feed. In order to progress towards the industrial implementation of these processes for H_2 production, the development of highly active catalysts is essential. Moreover, the deactivation of the catalysts by coke deposition is the most important challenge of reforming processes.

processes

IMPACT FACTOR 2.8

CITESCORE 5.1

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

Processes (ISSN 2227-9717) provides an advanced forum for process/system-related research in chemistry, biology, material, energy, environment, food, pharmaceutical, manufacturing and allied engineering fields. The journal publishes regular research papers, communications, letters, short notes and reviews. Our aim is to encourage researchers to publish their experimental, theoretical and computational results in as much detail as necessary. There is no restriction on paper length or number of figures and tables.

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)*)

Contact Us

Processes Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/processes
processes@mdpi.com
𝕏@Processes_MDPI