



materials



an Open Access Journal by MDPI

Current Trends in Hydrogen Storage Materials: Properties, Applications and Future Perspectives

Guest Editors:

Prof. Dr. Akhoury Sudhir Kumar Sinha

Department of Chemical Engineering, Rajiv Gandhi Institute of Petroleum Technology, Jais, India

Prof. Dr. Umapasana Ojha

Department of Sciences & Humanities, Rajiv Gandhi Institute of Petroleum Technology, Jais, Uttar Pradesh 229304, India

Deadline for manuscript submissions:

closed (20 May 2024)

Message from the Guest Editors

Owing to the possibility of zero carbon emissions associated with H₂ energy utilization, green H₂ is considered one of the most viable future energy sources and is extremely important in the efforts to meet the net zero emission target set in COP21. To materialize its commercialization, extensive research efforts are currently devoted to the development of viable systems to generate, store and utilize green H₂. Among all of the three above mentioned aspects, the storage of H₂ is important, as safe and high density storage systems are key to the advancement of H₂ and fuel cell technologies for applications in the area of transportation and stationary and portable power units.

This Special Issue will encompass all area of H₂ storage ranging from physical-based to material-based H₂ storage systems and their further utilization. Research articles and comprehensive reviews from related areas may be submitted for publication in the Special Issue. Owing to the demand for advancements in this field, we predict this collection will be widely viewed and receive notable recognition.



mdpi.com/si/178624

Special issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

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

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

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)