Special Issue

Next-Generation Fuel Cell Technologies for Transportation Applications

Message from the Guest Editors

This Special Issue encourages work from both industry and academia dealing with the challenges of the implementation of fuel cell technology in transportation applications. The scope includes, but is not limited to:

- Fundamental research at the cell or short stack level about advanced materials for the membrane, the catalyst layer, and the bipolar plates.
- The evaluation of the gas channel design on internal heat and mass transfer mechanisms.
- The development of new experimental and computational methods for the characterization of fuel cell operations.
- The optimal integration of the fuel cell stack into the balance of plant and energy management strategies.
- The evaluation of degradation mechanisms through accelerated stress tests and realistic/standardized driving cycles.
- The development of advanced control algorithms to balance efficiency and long-term durability in realistic working conditions.
- The evaluation of novel fuel cell technology for transportation applications.
- Environmental and techno-economic analyses on the use of hydrogen fuel cell technology in relevant scenarios and transportation applications.

Guest Editors

Dr. Joaquin de la Morena

CMT-Clean Mobility & Thermofluids, Universitat Politècnica de València, Valencia, Spain

Dr. Marcos López

CMT—Clean Mobility & Thermofluids, Universitat Politècnica de València. Valencia. Spain

Deadline for manuscript submissions

30 June 2026



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/248517

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

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, 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, CAPlus / SciFinder, and other databases.

Journal Rank:

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

