Special Issue

Advancements in Hydrogen Internal Combustion Engine Technology: Combustion, Performance, and Environmental Impact

Message from the Guest Editors

Hydrogen is vital for carbon neutrality and sustainable mobility. Hydrogen-fueled internal combustion engines (H_2ICEs) offer cost-effective decarbonization and high power density, leveraging existing technologies and infrastructures. However, hydrogen's unique properties pose challenges like abnormal combustion and NOx emissions, requiring advanced strategies and control. This Special Issue seeks interdisciplinary research to advance H_2ICE development, covering combustion mechanisms, performance enhancement, emission control, diagnostics, and real-world applications. We welcome original research articles on hydrogen combustion, engine design, emission mitigation, advanced tools, and special engine concepts. Join us in shaping the future of sustainable energy transitions through H_2ICEs.

Guest Editors

Dr. Qinghe Luo

Dr. Lingzhi Bao

Dr. Huaiyu Wang

Dr. Xingqian Mao

Dr. Yaodong Du

Deadline for manuscript submissions

31 July 2026

Fire

an Open Access Journal by MDPI

Impact Factor 2.7
CiteScore 3.9

mdpi.com/si/256926

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

mdpi.com/journal/fire

Fire

an Open Access Journal by MDPI

Impact Factor 2.7
CiteScore 3.9

mdpi.com/journal/fire

About the Journal

Message from the Editor-in-Chief

Fire is an international open-access journal about the science, policy, and technology of fires and how they interact with communities and the environment. *Fire* seeks to provide a forum to help the fire science community convey how we can live with fire in a changing world. *Fire* seeks submissions from interdisciplinary studies that take a pyrogeography perspective of fires occurring in natural, cultural, and industrial landscapes and how they interact with communities in the science-policy interface. *Fire*'s Editorial Board are widely recognized international leaders. The journal emphasizes quality and innovation and has a rigorous peer-review process. I strongly recommend *Fire* for the rapid publication of your innovative research publications and case studies.

Editor-in-Chief

Dr. Grant Williamson
School of Biological Sciences, University of Tasmania, Private Bag 55, Hobart, TAS 7001, Australia

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), AGRIS, PubAg, and other databases.

Journal Rank:

JCR - Q1 (Forestry) / CiteScore - Q1 (Forestry)