



Recent Advances and Progress on Renewable and Sustainable Alternative Fuels

Guest Editors:

Dr. Stavros Michailos

School of Engineering, University of Hull, Hull HU6 7RX, UK

Dr. Vasiliki Skoulou

School of Engineering, University of Hull, Hull HU6 7RX, UK

Deadline for manuscript submissions:

closed (30 September 2025)

Message from the Guest Editors

Dear Colleagues,

This Special Issue invites original and review research that reports recent advances and progress on promising alternative fuels such as sustainable aviation fuel (SAF), all types of biofuels, e-fuels, and ammonia. The purpose of the issue is multidisciplinary, aiming to include research dealing with process design, experimental studies, modelling, optimisation, and techno-economic and lifecycle assessments (TEA/LCA) of resilient and alternative fuel production technologies of a variety of technology readiness levels (TRLs). Suggested themes include, but are not limited to:

- Process design, modelling, and optimisation of alternative fuel routes;
- Applications of Artificial Intelligence in low-carbon fuel generation;
- Whole system assessments including TEA/LCA;
- Advances in catalysis and reactor design;
- Fuelwood, wood residues, wood pellets, animal waste, vegetal material;
- Biomethane, H₂, e-fuel, ammonia;
- Integration of thermochemical and biochemical processing routes;
- Integration of fuel generation with other low-carbon technologies.

We look forward to receiving your contributions.

Guest Editors

Special Issue





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and
Natural Resources, Ohio State
University, Columbus, OH 43210,
USA

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [GeoRef](#), [Inspec](#), [RePEc](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)

Contact Us

Sustainability Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/sustainability
sustainability@mdpi.com
[X@Sus_MDPI](#)