

Special Issue

Mitigation Strategies for Aviation's Climate Impact

Message from the Guest Editor

This Special Issue focus on mitigation strategies for the climate impact of aviation. Civil aviation satisfies modern society's needs for mobility and is an essential economic driver. Air transportation demand is forecast to increase by approximately 4.4% annually in the coming decades. The overall climate impact of aviation constitutes approximately 5% of the total anthropogenic causes of global warming. Both CO₂ and non-CO₂ effects from NO_x, H₂O, contrails, and particulates contribute to this. Due to its long lifetime, the climate impact of aviation from CO₂ is mainly determined by CO₂ emissions. On the contrary, the short-lived non-CO₂ effects depend not only on the emissions but also on the geographical location, altitude, time, and local weather conditions. To effectively mitigate the climate impact of aviation, considerations of technological improvements attributed to designs, structures, materials, energy sources, etc., and sustainable operations, are required. This Special Issue will present state-of-the-art research, review recent achievements, and provide a strategic perspective of future directions in environmentally sustainable aviation.

Guest Editor

Dr. Feijia Yin

Faculty of Aerospace Engineering, Delft University of Technology, Delft, The Netherlands

Deadline for manuscript submissions

closed (31 October 2022)



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/87396

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

[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)



About the Journal

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.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

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

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)