Special Issue

Advanced Technologies in Aero-Engines

Message from the Guest Editors

Aero-engines, have a crucial impact on the development of aircraft. With the continuous development of the aviation industry, the requirements for fuel economy, power output, environmental adaptability, and low emissions from engines are increasing. The combustion process of aero-engines is extremely complex, including mixing, ignition, combustion reaction, heat transfer, and strength, as well as other aspects. This Special Issue aims to summarize the latest research on advanced combustion technologies for aero-engines and provide a platform for researchers and engineers in related fields to communicate and learn from each other. Topics of interest for publication include, but are not limited to, the following:

- Novel concept aero-engine design;
- Combustion chamber structure optimization;
- Alternative fuel applications;
- Novel ignition/assisted combustion technologies;
- Combustion stability and regulation in extreme environments;
- Low-emission technologies;
- Materials and thermal protection;
- Efficient heat transfer technologies;
- Multi-physics field coupled simulation;
- Experimental research and testing techniques.

Guest Editors

Dr. Yang Du

Institute of Aero-Engine, School of Mechanical Engineering, Xi'an Jiaotong University, Xi'an 710049, China

Dr. Run Zou

School of Energy and Power Engineering, North University of China, Taiyuan 030051, China

Deadline for manuscript submissions

25 August 2025

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/231453

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

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/journal/energies

About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, 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, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)