Special Issue

Fundamental Theory of Combustion in Engines

Message from the Guest Editors

Combustion in engines is a complex physicochemical process central to energy conversion, emissions formation, and efficiency optimization. This Special Issue explores the fundamental theories underpinning combustion dynamics, including flame propagation, ignition kinetics, turbulent combustion interactions, and pollutant formation mechanisms. Research topics include, but are not limited to, aeroengines, ramjets, scramjets, rocket engines, detonation engines, etc. Example topics are given as follows:

- Fundamental combustion physics;
- Advanced modeling and simulation;
- Experimental diagnostics and validation;
- Alternative and sustainable fuels;
- Emissions control and mitigation strategies;
- Emerging combustion technologies.

Guest Editors

Dr. Chen Kong

School of Energy Science and Engineering, Harbin Institute of Technology, Harbin 150001, China

Dr. Hongchao Qiu

School of Energy Science and Engineering, Harbin Institute of Technology, Harbin 150001, China

Deadline for manuscript submissions

20 November 2025

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/241997

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)