

Special Issue

Challenges and Research Trends of Combustion Mechanism

Message from the Guest Editor

Energy combustion is of great importance to the engine industry, and thus, accurate chemical kinetic mechanisms of fuel are required for the simulation of modern engine combustion. Therefore, the combustion mechanism of actual fuels and alternative fuels is essential for the combustion chamber design of high-efficiency and low-emission advanced engines. A deep understanding of the combustion mechanism can contribute to the optimization of engine combustor design, exploration of pollutant formation mechanism, shortening of the development cycle, and reduction of research cost. Therefore, it is a great challenge to investigate the combustion mechanism in different conditions. This Special Issue of *Energies* seeks articles that focus on flame dynamics, plasma and laser ignition, catalytic conversion, combustion mechanism, laser diagnostic, alternative fuels, the chemical kinetic model, as well as combustion and emission of burners and engines.

Guest Editor

Prof. Dr. Erjiang Hu

Institute of Internal Combustion Engine, School of Energy and Power Engineering, Xi'an Jiaotong University, Xi'an 710049, China

Deadline for manuscript submissions

closed (30 November 2021)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/84394

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

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



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