Special Issue

Advances in Novel Fuels— Production, Combustion, and Application: 2nd Edition

Message from the Guest Editors

This Special Issue is expected to advance our understanding of novel fuels (including conventional, alternative, and surrogate fuels). The following topics will be considered:

- Application of synthetic fuels in aviation, road transport, shipping, and power generation.
- Production pathways of sustainable fuels, including techno-economic analysis and life-cycle analysis.
- Towards market launch—demos, tests, and pilot plants.
- Test flights and flight campaigns.
- Regulations-challenges and needs.
- CFD simulations of experiments, engines, and other facilities.
- Chemical kinetic modeling including the development and validation of reaction mechanisms, both detailed and reduced, with and without artifical intelligence (AI) and machine learning.
- Generic experimental studies related to facilities.
- Combustion—ignition, flame speed, and speciation.
- Reduction in pollutants including non-CO2 effects.
- Studies of oxidative and pyrolytic reaction pathways including thermodynamic and transport properties, and the calculation of reaction rate expressions.

Guest Editors

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Deadline for manuscript submissions

closed (10 November 2025)



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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.

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