Special Issue

Sustainable Biofuels: Opportunities and Challenges

Message from the Guest Editor

The global push to decarbonize energy systems spotlights sustainable biofuels—renewable, biomass - derived carriers critical for reducing fossil dependence in hard - to - electrify sectors (aviation, shipping). This Special Issue "Sustainable Biofuels: Opportunities and Challenges" highlights cutting - edge advances and challenges in sustainable production, upgrading, and deployment, emphasizing circularity, carbon neutrality, and tech integration.

Guided by two pillars:

- Conversion/upgrading
 Thermochemical (pyrolysis, gasification) & biochemical (fermentation) pathways, plus catalytic strategies (hydrotreatment, renewable H₂).
- System level assessments LCA, TEA, and policy evaluation to ensure sustainability, scalability, and infrastructure fit.

Aiming to bridge materials science, engineering, and policy, the Issue links research to real - world impact. We invite original articles, reviews from researchers, experts, and policymakers to drive biofuel innovation for climate/energy goals.

Guest Editor

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Deadline for manuscript submissions

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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

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