

Special Issue

Integrated Bioenergy Systems: Process Optimization and Sustainable Fuel Production

Message from the Guest Editors

Transitioning to a low-carbon energy future requires the development of efficient, integrated bioenergy systems capable of converting biomass and waste resources into sustainable fuels. Such systems play a pivotal role in reducing greenhouse gas emissions, diversifying energy supply, and enhancing energy security. This Special Issue aims to provide a platform for innovative research and technological advances in bioenergy systems, with an emphasis on process optimisation, system integration, and sustainability assessments. Research areas may include, but are not limited to, the following: thermochemical, biochemical, and hybrid conversion pathways; co-production of biofuels, bioproducts, and energy; carbon capture and utilisation in bioenergy systems; digital tools and modelling approaches for process optimisation; and policy frameworks supporting sustainable fuel production. We look forward to receiving your contributions to advance the science and implementation of integrated bioenergy systems.

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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.

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