

Special Issue

Energy Conversion and High-Value Utilization of Agroforestry Biomass

Message from the Guest Editors

Agricultural and forestry activities worldwide generate by-products and residual biomass. In the context of a circular and sustainable economy, their efficient management and valorization represent both a challenge and an opportunity to reduce environmental impacts and support transitions toward renewable energy systems. Research plays a key role in advancing technologies such as combustion, gasification, and pyrolysis, which offer promising routes toward transformation of biomass into energy and energy carriers. Equally crucial is the adoption of a “cascade use strategy” that will prioritize extraction of high-value functional materials and biobased products before directing residual biomass to energy recovery. Such approaches maximize resource value, reduce waste, and strengthen a sustainable bioeconomy. The Special Issue aims to gather original research focused on innovative thermochemical, biochemical, and integrated conversion strategies. Topics of interest include advanced biomass conversion technologies, green chemistry approaches, biobased material production, pollutant mitigation, and studies that enhance efficiency and environmental performance of biomass utilization.

Guest Editors

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Message from the Editor-in-Chief

Forests (ISSN 1999-4907) is an international and cross-disciplinary, scholarly forestry journal. The distinguished editorial board and refereeing process ensures the highest degree of scientific rigor and review of all published articles. Original research articles and timely reviews are released online, with unlimited free access. Our goal is to have *Forests* be recognized as one of the foremost publication outlets for high quality, leading edge research in this broad and diverse field. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global forestry community.

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