

Special Issue

Advances in Biomass Conversion, Biofuel Production and Biorefinery Processes

Message from the Guest Editors

The efficient transformation of renewable biomass into advanced biofuels, energy carriers, and valuable chemicals remains fundamental to decarbonizing global energy systems. Recognizing biomass as a versatile and abundant resource, this Special Issue aims to gather interdisciplinary studies that push forward the frontiers of biomass conversion and integrated biorefinery technologies. We welcome submissions on catalytic, thermochemical, and biochemical conversion routes; process intensification and integrative strategies for producing biofuels and hydrogen; innovative approaches to CO₂ utilization within biorefineries; and the incorporation of energy storage or renewable inputs. Contributions focusing on sustainability, techno-economic assessments, and life-cycle analyses of emerging processes are highly encouraged. We invite original research articles, critical reviews, and focus papers that deliver new insights into efficiency, scalability, and environmental performance.

Guest Editors

Prof. Dr. Juan Carlos Serrano-Ruiz

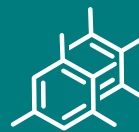
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About the Journal

Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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