

Special Issue

New Circular Frontiers in Sustainable Processes for Waste Biomass Valorisation

Message from the Guest Editors

This Special Issue is devoted to new processes for the valorisation of biomass in the frame of a circular economy. Lignocellulosic waste material, such as agri-food and forestry residues, serves as a considerable renewable feedstock that could be used to replace oil refineries with biorefineries.

Indeed, all biomass components can be converted into platform chemicals and bioactive compounds, bioenergy, and active materials. Enabling technologies for process intensification (microwave, ultrasound mechanochemical activation, pulsed electric fields, subcritical conditions, etc.) can boost sustainability by reducing process times and energy consumption, leading to improvements in product quality and yields. Moreover, the use of alternative solvents can circumvent environmental issues. Insights into catalytic routes for biomass conversion into platform chemicals are also appreciated in this Special Issue.

In this Special Issue, we invite submissions exploring cutting-edge research and recent advances in the fields of sustainable processes for waste biomass valorisation. Both research papers and reviews are welcome.

Guest Editors

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Deadline for manuscript submissions

closed (30 September 2022)



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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