

Special Issue

Innovative Hydrothermal Systems to Valorize Agricultural Residuals for Sustainable Crop Production and Environmental System

Message from the Guest Editors

Current global challenges in agriculture include sustainably producing crops and livestock while mitigating greenhouse gas emissions, recycling nutrients, and increasing soil fertility. A key strategy to meet these challenges is the propagation of thermochemical conversion technologies for the cascading use of agricultural residues to return carbon and nutrients to soils for long-term storage and mitigation of environmental pollution. Considerable research indicates that hydrothermal carbonization (HTC) technologies are an excellent selection for serving these goals. Although research related to HTC technologies has been increasing yearly, most HTC research has not been organized comprehensively to cover a wide range of conditions. The aim of the Special Issue will cover the fundamental and application research on the various feedstocks and processing conditions and demonstrate the field application of HTC products to document the beneficial effect of HTC technologies on soil carbon sequestration, improvement of crop production, and mitigation of environmental pollution.

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Deadline for manuscript submissions

30 June 2025



Agronomy

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Impact Factor 3.3
CiteScore 6.2



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