Special Issue

The Role of Biochar in Soil and Water Treatment Processes

Message from the Guest Editors

Biochars are charcoals used for non-fuel purposes i.e., adsorbents, soil amendment materials, activated carbon precursors, etc.. Biochar production is carried out via the thermal degradation of lignocellulosic biomass under oxygen-free or oxygen-limited conditions. The thermal degradation parameters of the biomass, such as the pyrolysis temperature, heating rate, pyrolysis time, etc., can be tailored to produce a variety of biochars with different porosities and surface chemical groups. This highly variable physical and chemical composition of the biochars offers an opportunity to use them in different soil amendment and water treatment conditions. The aim of this Special Issue is to survey the recent developments in the use of biochars for soil amendment and water treatment applications. The specific objectives include the selection of biochar precursors, the tuning of water adsorption, and leaching from biochars, as well as the tuning of the adsorption properties of biochars for water treatments such as the removal of heavy metals and organic pollutants.

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Editor-in-Chief

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