

Special Issue

Biochar: Preparation, Properties and Applications

Message from the Guest Editor

Biochar is a carbon-rich product produced by the thermal decomposition of organic material. Since no complete carbonization takes place, biochar contains both carbonized and non-carbonized phases. Organic materials used as feedstock and the selected pyrolysis conditions change the physical and chemical properties, such as surface area, polarity, and elemental composition, of the resulting biochar. Due to the high degree of porosity, large surface area, and high number of functional surface groups, there are various possible environmental applications for biochar. For example, biochar can contribute to soil improvement in agriculture. In livestock farming, biochar can be used as a feed additive, and for manure treatment. This can achieve a significant reduction in odor nuisance. Due to its low thermal conductivity and water absorption capacity, biochar has suitable characteristics for use in building construction as an insulating material and for moisture control. Biochar can also be used to decontaminate polluted soils and water resources.

Guest Editor

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