Special Issue

Biochar, Bioremediation and Bioenergy

Message from the Guest Editors

Heavy metal contamination is a major concern in today's world. Both geogenic and anthropogenic activities are responsible for the increase in the metal concentration in the environment. These activities also negatively influence the beneficial microbiota of the soil. Plant growth-promoting rhizobacteria (PGPR) were found to be a promising additive for reducing contaminants by bioabsorption, biotransformation, bioaccumulation, and biomineralization, minimizing the transfer of these contaminants to plants. In addition, the charring of biomass under limited oxygen at a high temperature results in the generation of a carbonaceous material called "biochar". With a high porosity and water holding capacity, as well as a wide range of pH values with multiple micro- and macro-nutrients, biochar is a promising additive in bioremediation. Moreover, the presence of various functional groups aid in the sorption of heavy metals, and thus, stabilizes their mobility.

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Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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