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Biochar, Bioremediation and Bioenergy

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Message from the Guest Editors

Dear Colleagues,

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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Message from the Editor-in-Chief

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