



Influence of the biochar application for the recovery of Spanish mine area

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The use of organic amendment areas has been a very common technique for the restoration of land affected by mining activities. Recent years, the use of biochar for the treatment of metal-contaminated soils can be an adequate strategy due to biochar can decrease the trace metal mobility.

This effect depends on biochar properties as cation exchange capacity, surface area or pH which are highly related with the raw material and pyrolysis conditions.

The aim of this work is to study soil response after the use of 4 different biochars in the treatment of different soil samples collected in the Rio Tinto area (Spain) which is the main Spanish Cu mine since 15 years ago. For this purpose, biochars were added to the different soils at a dosage of 8 wt%, and samples were incubated during 6 months. After this period, the influence of biochar on trace metal mobility was assessed.

The study was completed determining microbial biomass, soil respiration and several enzymes activities to study the biochar influence on soil biochemical activities.

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