

Heavy Metal Bioaccumulation Capability of Woody Plants in Mine wasteland of Karst Areas

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The bioaccumulation capability and transfer characteristics of Pb, Zn, Cu and Cd in soil and 6 different woody plants collected from a typical lead-zinc mine wasteland of Karst area, Hunan province were investigated, including *Cunninghamia lanceolata*(Lamb.) Hook., *Swida wilsoniana* (Wanger.), *Koelreuteria paniculata*, *Paulownia*., *Cinnamomum camphora* (L.) Presl., and *Sapium sebiferum* (L.) Roxb. The results showed that the 6 plants could adapt to the heavy metal polluted environment, and there was a positive correlation between the heavy metal content in plants and soil. *Swida wilsoniana* (Wanger.) and *Sapium sebiferum* (L.) Roxb. had the largest Pb bioaccumulation factor of 0.03; *Paulownia* had the highest Zn bioaccumulation factor of 0.37; the largest Pb transfer factor of 1.31 were found in *Koelreuteria paniculata*; and Zn transfer factor of *Paulownia* reached 1.45. These 4 woody plants are suitable for phytoremediation of mine wasteland of Karst areas.