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研究简报

工业污染土壤中镉的化学形态及植物修复研究

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摘要

对工业污染地中重金属镉的分布及存在的化学形态进行了系统研究.结果表明,土壤中吸附的镉可被水所溶出，pH值越低（酸度越强），镉的溶出率越大，移动性越强，越容易被作物所吸收.中性条件下，此类污染土壤可溶态（水溶态、交换态和络合态）镉含量较低，分别为0.68%、12.70%和12.40%；不可溶态镉（颗粒态）约为74.40%.萝卜的茎部为此类镉污染地中镉的超富集植物器官.

关键词 土壤 镉 形态分析 超富集植物

分类号

Chemical forms of cadmium in industrial contaminated soil and its phytoremediation

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Abstract

The study showed that the adsorbed cadmium in soil could be dissolved in water,and the lower the soil pH,the higher and stronger the dissolving rate and mobility,and the more uptake by crops.The water-soluble,exchangeable and complexed cadmium contents in the contaminated soil were lower when the soil was chemically neutral,with the values being 0.68%,12.70% and 12.40%,respectively,while the insoluble (granulated) cadmium content was 74.40%.Radish caudex in the contaminated soil could absorb cadmium,and be considered as the hyperaccumulator of soil cadmium.

Key words Soil Cadmium Speciation analysis Hyperaccumulator

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