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粘土矿物修复重金属污染土壤的研究进展

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摘要：

粘土矿物修复重金属污染土壤是一种原位修复技术，该技术通过向污染土壤中添加粘土矿物，利用粘土矿物对重金属的吸附、配合、共沉淀等作用降低重金属的移动性和生物有效性，减少重金属向水体和植物及其它环境单元的迁移，从而实现了重金属污染土壤的化学修复。由于粘土矿物资源丰富、修复过程操作简单、修复效果迅速，使其在重金属污染土壤的治理过程中有着不可替代的作用。本文对粘土矿物修复重金属污染土壤的机理进行了探讨，总结了粘土矿物对重金属污染土壤的应用效果，介绍了该技术研究的实验方法和评价方法，最后指出了粘土矿物的应用前景以及目前存在的问题，对以后工作应侧重的一些方面提出了建议

关键词： 土壤 粘土矿物 重金属污染 修复

Research Advances on Remediation of Heavy Metal Contaminated Soils Using Clay Minerals

Abstract:

Remediation of heavy metal contaminated soils using clay minerals is an in-situ remediation technology. The technology was intend to realize the chemical remediation by adding clay metals to polluted soils. The clay minerals can reduce the mobility and bioavailability of the heavy metals by adsorption, complexation and coprecipitation et al, and reduce the transference of the heavy metals to water, plant and other environment units. Clay minerals play an irreplaceable role in the treatment of heavy metal polluted soils. This process was superior to the traditional process in abundant resources, simplified operation and rapid repairing process. The mechanisms and repairing effects of remediation were discussed. Test and evaluation methods of the technology were introduced. The paper points out the application prospects and existing problems of the clay minerals, and then puts forward some suggestions for future work in the end.

Keywords:

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