

农村发展—生态资源环境

三峡库区消落带不同垂直高程土壤重金属污染调查与评价

张艳敏<sup>1</sup>, 刘海<sup>2</sup>, 魏世强<sup>3</sup>, 江涛<sup>4</sup>, 刘丽琼<sup>4</sup>

- 1. 重庆市北碚区西南大学
- 2. 内蒙古鄂尔多斯市伊金霍洛旗第四中学
- 3. 西南大学资源环境学院 内蒙古鄂尔多斯市伊金霍洛旗第四中学
- 4. 西南大学资源环境学院

摘要:

为了揭示三峡库区消落区不同垂直高程土壤重金属污染状况, 笔者通过对三峡库区消落带不同垂直高程(145~155、155~165、165~175 m)土壤样品的分析, 结果表明三峡库区消落带土壤重金属污染以As、Cd为主, Hg、Pb污染程度相对轻微。从长寿到巴东, 即从库区的上游到下游, 重金属含量普遍呈下降趋势。综合评价结果表明: 三峡库区9个区县消落带中, 除涪陵的3个垂直高程土壤重金属超过背景值, 处于轻度污染状态, 其余区县的3个垂直高程土壤重金属处于警戒线以下, 土壤未受污染。总体来说, 长寿、涪陵地区消落带土壤受重金属污染, 控制污染源是防止消落带土壤重金属含量增加的有效方法。

关键词: 污染评价

Investigation and assessment of heavy metal pollution from various vertical heights in water flooding fluctuation zone of Three Gorges reservoir areas.

Abstract:

In order to reveal situation of heavy metal pollution from various vertical heights in water flooding fluctuation zone of Three Gorges reservoir areas, soil samples investigated from various vertical heights including 145-155, 155-165 and 165-175 m in water flooding fluctuation zone of Three Gorges reservoir areas were analyzed, which indicated that soil heavy metal pollutions mainly were caused by arsenic (As) and cadmium (Cd) in comparison with mercury (Hg) and lead (Pb) pollution due to relatively lower contents in soils. In addition, based on spatial distribution, the heavy metal contents showed a decreasing trend from Changshou to Badong, in which from up to down stream. Furthermore, the comprehensive assessment suggested that in nine investigated areas in water flooding fluctuation zone of Three Gorge reservoir, except for heavy metal contents in all three heights exceeded background values in Fulin, which belonged to slight pollution, all rest of counties were under alarming line, and no soil pollution were observed. Overall, soil heavy metal contamination in flooding areas were observed in Changshou and Fuling, thus the controlling pollution sources was an effective method to prevent increasing soil heavy metal pollution significantly in these areas.

Keywords: pollution assessment

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通讯作者: 张艳敏

作者简介:

作者Email: zyminkl@163.com

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