

铜矿采矿废石重金属环境污染的淋溶实验研究——以安徽铜陵凤凰山矿田药园山铜矿床为例

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中文摘要:本文基于凤凰山铜矿田药园山矿床采矿废石的淋溶实验研究,着重探索表生环境下影响重金属淋滤迁移的因素,分析重金属在采矿废石中迁移转化的机制。动态淋滤实验研究了重金属从两种采矿废石中淋出的浓度与淋溶液的pH值、淋滤时间以及淋出液酸度的关系。结果表明,采矿废石中重金属淋滤强度随酸度的增加而逐渐增强,而淋滤出的重金属并不总是随着时间的延长而递减,同时实验研究也表明,淋溶采矿废石的排放水不一定是酸性的。因此,在评价矿山环境污染以及治理过程中要对当地雨水的平均pH值、所排放废石的岩性以及废石的堆放时间进行综合考虑。

中文关键词:[采矿废石](#) [重金属元素](#) [淋滤强度](#) [pH值](#)

Leaching Experiments of Environmental Pollution Caused by Heavy Metals of Waste Rocks in the Copper Mine: a Case Study of the Yaoyuanshan Ore Deposit in the Fenghuangshan Copper Ore Field, Tongling, Anhui, China

Abstract:In this paper, waste rocks from the Yaoyuanshan ore deposit in Fenghuangshan copper ore field were taken as the main research object. Based on dynamical leaching experiments, the authors studied the factors affecting release and transfer of metals during the superficial geochemical procedure and the releasing and transferring characteristics of metals in waste rocks. Dynamic leaching experiments were made for detecting the heavy metal ion release law of waste rocks under different pH values at different lengths of leaching time. The results show that the leaching intensity increases with the decrease of pH, that the density of the metal does not necessarily decrease with lengthening of experimental time, and that the mine drainage is not exclusively acidic.