



## 论文摘要

中南大学学报(自然科学版)

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Vol.32 No.2 Apr.2001

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文章编号: 1005-9792(2001)02-0122-05

### 急倾斜矿体开采地表沉陷与概化地应力研究

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**摘要:** 急倾斜矿体开采地表沉陷规律不同于自重应力作用下的煤矿地表移动规律的特点, 研究结果表明急倾斜矿体开采地表沉陷的主控因素为: 残余构造应力场与成矿应力场、急倾斜矿体的产状、覆岩体结构与节理裂隙的空间展布规律、开采放矿与顶板管理方法. 此外, 提出了研究急倾斜矿体开采的地表移动规律时必须在煤矿地表移动规律基础上, 引入以残余构造应力为主要影响因素, 同时包含倾角、岩体结构、放矿规律的4大主控因素; 在此基础上, 推导了急倾斜崩落法开采矿山地表移动与概化地应力的关系式, 并通过实例加以验证, 为多主控因素综合机理研究奠定了基础.

**关键字:** 构造应力; 自重应力; 急倾斜矿体; 沉陷; 概化地应力

### Study on the mining surface movement and general changed stress in the earth of rapid incline mining body

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**Abstract:** The rule of mining surface subsidence problem of the rapid incline avalanche is different from that of coal mine under initial stress. Its main controlling factors are remainder structural and mine-growing stress field, obliquity of mine body, cover rock structure, the distributing of section and crack, mine and discharge and peak manage method. Base on the rule of coal mine surface movement, remainder structural stress is the main factor, including obliquity, rock body structure, discharge mine rule. In this article, the relation of the rapid incline mining body avalanche mining surface movement and general changed stress and its examples are given, which has laid the foundation for the colligation mechanism study of more main controlling factors.

**Key words:** structural stress; initial stress; rapid incline mine body; subsidence; general changed stress

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