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## 深井煤层巷道围岩控制技术及其试验研究

王卫军<sup>1</sup>, 李树清<sup>1</sup>, 欧阳广斌<sup>2</sup>

(1. 湖南科技大学 能源与安全工程学院, 湖南 湘潭 411201; 2. 平顶山煤业集团公司四矿, 河南 平顶山 467000)

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**摘要** 分析深井煤层巷道围岩变形特征和支护失效的原因, 提出此类巷道的内外结构耦合平衡支护原理。对深井煤层巷道的围岩控制, 必须有较高强度的支护结构参与巷道开掘后围岩应力的调整过程, 减少围岩内部煤体强度损失。在巷道周围应尽快形成稳定内部承载结构, 这样才能缩小围岩塑性流动区的范围, 维护巷道的稳定。进行工业性试验, 取得较好效果。

**关键词** [采矿工程](#) [深井](#) [煤层巷道](#) [围岩控制](#) [内结构](#) [外结构](#)

分类号

## STUDY ON TECHNIQUE AND TEST OF SURROUNDING ROCK CONTROL OF DEEP SHAFT COAL ROADWAY

WANG Weijun<sup>1</sup>, LI Shuqing<sup>1</sup>, OUYANG Guangbin<sup>2</sup>

(1. College of Energy and Safety, Hunan University of Science and Technology, Xiangtan, Hunan 411201, China; 2. The Fourth Mine, Pingdingshan Mining Group Company, Pingdingshan, Henan 467000, China)

### Abstract

The deformation feature of deep shaft coal roadway is analyzed, and the reason for many kinds of support failures is studied. The coupling balance supporting principle of inner and outer structures is put forward for these roadways. For surrounding rock control of deep shaft coal roadway, it is necessary for the high strength supporting structure to take part in the redistribution of stresses in surrounding rock after excavation, so as to decrease the strength damage of coal. Thus the stable bearing structure can be formed rapidly around the roadway, and the area of plastic fluid zone of surrounding rock can be reduced. The industrial test shows that the supporting principle is correct.

**Key words** [mining engineering](#) [deep shaft](#) [coal roadway](#) [surrounding rock control](#) [inner structure](#) [outer structure](#)

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