土质边坡加固中预应力锚索框架内力分布的试验研究 朱宝龙1,杨明2,胡厚田1,陈强1

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摘要 利用现场试验方法,研究了土质边坡加固中预应力锚索框架的内力分布规律,以指导锚索框架工程的设计;得出了同一等级锚固力作用下框架的内力分布规律与不同等级锚固力作用下框架的内力变化特征,以及锚索力在框架纵横梁之间的分配特点;同时验证了锚索框架内力的Winkler弹性地基梁计算模式。

关键词 <u>岩土力学; 预应力锚索框架; 内力; 现场试验; 土质边坡</u> 分类号

# TESTING STUDY ON INTERNAL FORCES FOR PRESTRESSED ANCHOR CABLE FRAME IN REINFORCED SOIL SLOPE

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#### Abstract

Based on the field test, the distribution law of internal forces of prestressed anchor cable frame used in soil slope is studied. The law of internal forces under the same grade of anchor forces, the change of internal forces under the various grades of anchor forces, and the distribution of anchor forces in horizontal beams and vertical beams of frame, are proposed. The results show that the maximum positive moment appears at anchoring spot, and the minimum negative moment appears at the middle of the beam. In addition, due to the increase of anchor forces, the moment is linearly increasing. The calculation of internal forces for prestressed anchor cable frame is validated.

**Key words** <u>rock and soil mechanics</u>; <u>prestressed anchor cable</u> frame; internal force; field test; soil slope

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