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复合土钉支护厚杂填土边坡现场试验研究

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收稿日期 2003-12-12 修回日期 2004-2-27 网络版发布日期 2007-2-7 接受日期 2003-12-12

摘要 对杂填土内土钉的受力特点及边坡的位移特性进行了现场试验研究, 得出了若干有意义的结果和结论。首次测得并分析了杂填土中土钉的双弓形应变分布形态, 指出这是填土边坡中存在2个或以上潜在滑动面的结果; 首次测得并分析了土钉临界锚固长度, 指出在本试验条件下, 其长度约为9 m, 并认为临界锚固长度是应变(应力)峰值点、零值点和破坏点同时发生转移而形成, 锚固类结构(锚杆、锚索、土钉)均具有此特点。

关键词 [地基基础; 杂填土; 复合土钉; 预应力锚杆; 基坑支护](#)

分类号

IN-SITU TESTING STUDY ON RETAINING MISCELLANEOUS FILL SLOPE BY USING COMPOUND SOIL NAILING

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Abstract

In-situ testing study on the mechanical behavior of soil nailing and the displacement characteristics of miscellaneous fill slope is carried out. A number of significant conclusions are proposed. For the first time, double arciform strain of the soil nailing is observed in the miscellaneous fill. It is considered as the result that there are two (or more) potential slide planes in the miscellaneous fill. The critical anchorage length is analyzed and determined for the first, which is 9 m in this experiment. The critical anchorage length is formed because of the transfer of the peak value point, the zero value point of the stain (stress) and the wreck point at the same time. It is found out that all anchorage structure (anchor-bolt, anchor-cable and soil nailing) have this characteristic.

Key words [ground and foundation; miscellaneous fill; compound soil nailing; prestressed anchor-bolt; excavation retaining](#)

DOI:

