

## 滑坡滑带(面)土及堆积物的粒度多组分分布特征研究

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## CHARACTERISTICS OF MULTI-MODEL GRAIN SIZE DISTRIBUTION OF SLIP SURFACE SOILS AND DEPOSITS OF LANDSLIDES

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**摘要** 文章利用高分辨率激光粒度仪MS2000对我国典型地区5种沉积类型滑坡的滑带(面)土和滑坡细粒堆积物的粒度多组分分布特征进行了系统、深入研究,总结了不同沉积类型滑坡滑带(面)土与滑坡堆积物的粒度多组分分布特征及差异性,其对于认识滑坡的成因机制具有重要的理论和实践意义。研究认为:(1)不同沉积类型的滑坡滑带(面)土和滑坡堆积物的粒度一般含有4个组分,其分别为风成的细、中、粗粒组分和水成的悬浮组分;(2)不同地区不同沉积类型的滑坡其滑带(面)土粒度与滑坡堆积物的粒度多组分具有不同的分布特征;(3)同一地区滑坡的滑带(面)土与滑坡堆积物的粒度多组分分布特征有较大差异,主要受控于滑坡本身的形成演化过程。

**关键词:** 滑坡 滑带土 粒度 多组分分布特征

**Abstract:** This paper mainly examines the characteristics of the multi-model grain size distribution of slip surface soils and fine-grained deposits of landslides. It uses the high-resolution laser grain size analyzer MS2000 in five typical sedimentary areas of China. Then It summarizes the characteristics between the discrepancies of different types of slip surface soils and landslide deposits. The characteristics have important theoretical and practical significances for understanding the formation of landslide mechanism. The test results show that: 1) There are at most four models(median size are  $<1\mu\text{m}$ ,  $1\sim 10\mu\text{m}$ ,  $10\sim 100\mu\text{m}$ ,  $100\sim 500\mu\text{m}$ , respectively) that are superimposed to constitute of landslide slip surface soil and the deposits in the different types of sedimentary areas. The characteristics of multi-models grain size distribution are the fine, median and coarse grain of suspension and saltation.2)Different types of landslides slip surface soils and the deposits can have significantly different characteristics of grain size distribution.3)the grain size discrepancy of landslides slip surface soils and the deposits in the same area can be controlled by the formation and evolution of landslides themselves.

**Key words:** Landslide Slip surface soil Grain size multi-model distribution characteristics Laser grain size analyzer

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