

[1]盛俭,吕晗,王禹萌.长白山天池火山泥石流堆积物粒度分布及其结构维数[J].自然灾害学报,2012,04:132-138.

SHENG Jian,LV Han,WANG Yumeng.Grain-size distribution and structural dimension of Tianchi Volcano lahar deposits in Changbai Mountain region[J].,2012,04:132-138.

[点击复制](#)

## 长白山天池火山泥石流堆积物粒度分布及其结构维数

《自然灾害学报》[ISSN:/CN:23-1324/X] 期数: 2012年04期 页码: 132-138 栏目: 出版日期: 2012-08-30

Title: Grain-size distribution and structural dimension of Tianchi Volcano lahar deposits in Changbai Mountain region

作者: [盛俭<sup>1, 2</sup>](#); [吕晗<sup>2</sup>](#); [王禹萌<sup>2</sup>](#)

1. 中国地震局工程力学研究所,黑龙江 哈尔滨 150080;
2. 吉林省地震局,吉林 长春 130117

Author(s): [SHENG Jian<sup>1, 2</sup>](#); [LV Han<sup>2</sup>](#); [WANG Yumeng<sup>2</sup>](#)

1. Institute of Engineering Mechanics, China Earthquake Administration, Harbin 150080, China;
2. Earthquake Administration of Jilin Province, Changchun 130117, China

关键词: [长白山](#); [火山泥石流](#); [粒度分布](#); [结构维数](#)

Keywords: [Changbai Mountain](#); [lahar](#); [grain-size distribution](#); [structural dimension](#)

分类号: P618.11

DOI: -

文献标识码: -

摘要: 对堆积物的粒度进行分析,可以为研究火山泥石流的形成机制、数值模拟等提供参考数据。为了对长白山天池火山泥石流堆积物进行研究,在二道白河镇附近对长白山天池的古火山泥石流进行了勘察,取了2组共12个火山泥石流堆积物样品。对第1组进行了粒度参数法分析,得到了火山泥石流堆积物的平均粒径、分选系数、偏度和峰度,认为长白山天池火山泥石流堆积物的分选较差,沉积以粗组分为主。基于从第2组6个样品的分析可以推断,长白山天池火山泥石流主要为稀性泥石流,泥石流堆积物粒度分布较不均匀,分选较差,粒度分布接近正态分布。研究表明,粒度参数分析和结构维数计算相结合可以很好地了解火山泥石流堆积物的分选性、粒度分布情况、泥石流的类型等。

Abstract: Grain size analysis of lahar deposits can provide reference data to lahar formation mechanism, numerical simulation, etc. To study the lahar deposits of Changbai mountain, we explored the ancient lahar deposits in Erdaobaihe Town near Changbai mountain, obtained 12 lahar deposits samples in 2 groups, and analyzed the first group's 6 samples with grain size parameters method, acquired the mean grain size, sorting coefficient, skewness and kurtosis of lahar deposits. From the result of analysis, it can be known that the lahar deposits in Changbai mountain region is bad sorting, and the components mainly consist of deposit coarse grain. Deduced from the analysis of 6 samples of the second group, it can be seen this lahar is thin viscous debris and its grain sizes are non-uniform, bad

导航/NAVIGATE

[本期目录/Table of Contents](#)

[下一篇/Next Article](#)

[上一篇/Previous Article](#)

工具/TOOLS

[引用本文的文章/References](#)

[下载 PDF/Download PDF\(859KB\)](#)

[立即打印本文/Print Now](#)

[推荐给朋友/Recommend](#)

统计/STATISTICS

摘要浏览/Viewed 259

全文下载/Downloads 148

[评论/Comments](#)



sorting and close to normal distribution. Results show that comprehensive utilization of grain-size distribution and structural dimension analysis could understand sorting, grain-size distribution and type of lahar deposits very well.

---

#### 参考文献/REFERENCES

-

---

备注/Memo: 收稿日期:2011-10-18;改回日期:2011-12-10。

基金项目:中国地震局地震科技星火计划项目(XH1009Y);国家自然科学基金项目(41072249);地震行业专项项目(201208005)

作者简介:盛俭(1979-),男,博士,主要从事地震灾害、地震地质及地质灾害研究.E-mail:sj2984@sina.com

---

更新日期/Last Update: 1900-01-01