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摘要:

位于湖北省西缘的黄陵穹隆具有基底加盖层双层结构, 其暴露的基底主要以黄陵花岗岩为代表。该穹隆对汉盆地一带构造格局的形成, 以及三峡大坝的安全性等方面均具有重要控制和影响作用。本文通过对黄陵花岗岩实测阶地地貌数据, 获得了黄陵穹隆65Ma以来的隆升速率、隆升高度和剥蚀速率等方面的数据: 1) 65-7Ma, 隆升为1426.8-429.2m; 2) 7Ma至今, 平均隆升速率为204.1m/Ma, 隆升高度为1428.7m。而0.73-0.01Ma以来隆升速率平均隆升速率为0.134m/Ka, 显示出早期隆升较慢, 后期加快的趋势。65Ma以来, 至少总的剥蚀厚度为2455.5m-1028.7m, 剥蚀速率为0.147mm/a。研究结果约束了长江三峡的形成时间和过程, 证实了三峡是一年轻的河谷

关键词: [黄陵穹隆](#) [新生代](#) [隆升历史](#) [剥蚀作用](#) [长江三峡贯通](#)

Cenozoic uplift characteristic and environment effect of Huangling Dome in the west Province [Download Fulltext](#)

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Abstract:

Huangling Dome is constitutive of base and cover rocks, which is located in the west edge of the Yangtze Three Gorges. Huangling Granite is the representative outcrop of the base. Huangling Dome is very important to the formation of structural pattern of Sichan-Jiangnan Basins, and also the security of Yangtze Three Dam. Based on fission track analysis of Huangling Granite, combining with field characteristic in field, we obtain data of uplift velocity, uplift height and denudation velocity since 65Ma: 1) 65-7Ma, uplift velocity was 24.6-7.4m/Ma, and uplift height was 1426.8-429.2m; 2) 7-0Ma, uplift velocity was 204.1m/Ma, and uplift height was 1428.7m. Especially, uplift velocity increased from 0.058m/Ka to 1.033m/Ka from 0.73-0.01Ma and mean velocity was 0.134m/Ka, which showed that uplift velocity was slow in the early stage and continuously from then on. Total denudation depth was 2455.5m-1028.7m since 65Ma, and denudation velocity was 0.147mm/a from 7Ma to present. Research results restrict formation time at Three Gorges, and prove the Three Gorges is a youthful river valley.

Keywords: [Huangling Dome](#) [Cenozoic](#) [uplift history](#) [denudation process](#) [formation of the Yangtze I](#)