

performed in the overall curve and the shear displacement under yielding were less than 5 mm before saturation and less than 10 mm after saturation. For the strength parameters, internal friction coefficient of the peak strength before and after saturation of the two types of weak interbed was decreased generally 8% to 10%, the residual strength was generally reduced no more than 5%. According to the test, it can be found that because the fine-grained material (< 0.075 mm) accounted for low proportion in the non-clay weak interbed composed by coarse-grained soil, the fine-grained material cannot wrap the coarse-grained to form lubricant. At the same time due to confining pressure effect, saturation state had little influence on the strength parameters. Therefore, the test represented that different saturated state had no significant effect on the internal friction and the cohesion in the non-clay weak interbed, and the strength parameters of the weak interbed were mainly depended on the particles composition of itself.

Key words: weak interbed; coarse-grained soil; deformation; strength parameters

封面照片说明: 九寨沟

九寨沟位于岷山山脉南段尕尔纳峰 (海拔 4 764 m) 北坡, 是嘉陵江上游支流白水河的支沟, 行政区划属四川省阿坝藏族羌族自治州九寨沟县 (原名南坪县)。

九寨沟流向由南向北, 主沟呈“Y”字形, 总长超过 50 km。其地处青藏高原东缘, 为青藏高原向四川盆地的过渡地带, 新构造运动强烈、地壳抬升幅度大, 岩层中褶皱断裂发育; 第四纪冰期冰川作用强烈, 遗留下的古冰川遗迹十分丰富, 角峰、刃脊、冰斗、U形谷及终碛堤等冰川侵蚀和冰川堆积地貌发育。沟内碳酸盐岩分布广, 由于喀斯特作用较为强烈, 发育了大规模的钙华沉积, 形成艳丽典雅的湖群与奔泻湍急的溪流; 以高原钙华湖群、钙华瀑群和钙华滩流等水景为主体的奇特风貌, 配以古木幽深的茫茫原始森林和连绵起伏的巍峨雪峰, 构成独具特色的高原景观。

九寨沟的最低海拔不足 2 000 m, 最高点 4 764 m, 相对高度达 2 768 m, 地形高差悬殊, 导致气候垂直分带显著, 植物垂直带谱明显、种类繁多, 植物和动物资源丰富。

照片为九寨沟下游的湖光山色。

(嘉 益)