A Study on Surface Microtexture of Slipping Zone Soil of Some Landslide in the Three Gorges Reservoir District and its Significance

[1]Yan Chunjie, [2]Sun Yunzhi.[1]Test center, China University of Geoscierces, Wuhan,China;[2]Institute of Yangtze River Exploring Technique of MWR,,Wuhan,, China.

The mineral assemble and content and surface microtexture of slipping soil of several landslides in the Three Gorges Reservoir District have been analyzed by scanning electron microscope (SEM) and x-ray (XRD). All the mineral assembles are similar in these landslides. The main minerals are montmorillonite, illite, kaolinite, chlorite, quartz and feldspar. There are two kinds of surface microtecture in the slipping soil, i.e., linear scratch and arcuate scratch. Depending on the analyses of the microtexture transformation, we can obtain the information about the times, the direction and the steps of landslide movement. We also studied landslide formation, stability and revival possibility of the ancient landslides and forecasted the activity of similar landslide in different districts. The surface texture features of stable landslides and mobile landslides are summarized and it is concluded that the existence filamentous may result in or increase movement of Landslides.