

A flume test for seepage and overtopping failures of model landslide dams

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A flume test was performed for seepage and overtopping failures of model landslide dams. We used non-polarized electrodes and accelerometers to monitor the self-potential variation and seismic signals during the failure processes. For the seepage failure tests, we found that self-potential variation corresponds well during the head ward progressive erosion failure of the model dam. In addition, repeating sliding of the model dam was observed and can be proved by the recurrent seismic signals. For the overtopping failure tests, the self-potential dropped sharply when the electrodes were exposed outside a model dam, which can be applied to indicating the eroded positions of a model dam.

Keywords: landslide dam, seepage, overtopping, dam breach, flume test