

## 人工壩潰壩試驗壩體崩塌之電位訊號特性初探

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**摘要** 本研究於惠蓀林場進行之潰壩試驗時利用非極化電極量測大地電位，並且觀測其電位訊號之特性，藉由拍攝影片來觀察比較，主要比對電位訊號的變化跟現場壩體崩壞之情形。本研究發現在水流撞擊當下電位會急速下降，然後慢慢回升達穩定值，當潰壩時電位再下降，反應了潰壩時之電位訊號變化。在電位第二次下降後，電位訊號會再回升到某一個穩定值，且比第一次回升時之回升速率快。

**關鍵詞：**非極化電極、電位差、潰壩、崩塌。

## A Preliminary Study of the Characteristics of Electrical Potential during an Artificial Dam Test

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**ABSTRACT** This study preliminary discusses the electrical potential during the overtopping test of an artificial dam in Huisun Forest Station. We observed the characteristics of the electrical potential signals and compared the signals with the test video. The main purpose is to compare the change of the electrical potential with the collapse situation of the dam. We found that at the electrical potential decreases rapidly when water impacted the dam, then the electrical potential slowly increases to a stable value. When the dam breached the electrical potential decreases again.

**Key Words :** Non-polar electrode potential, electrode, dam burst, landslide.

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