

孔隙型防砂壩對細顆粒泥砂囚砂效果之研究

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摘要 本研究之渠槽實驗在探討孔隙型與全封閉式防砂壩之囚砂效果。故本研究擬於每組實驗針對不同壩體厚度及填充石材，以固定壩高方式，於每組實驗分別供應粗、細兩種砂材，由拍攝水下三角洲運移情形發現，改變壩體厚度愈薄、填充石材孔隙越大或水深越小等條件，水下三角洲堆積體運移速度均較快。試驗發現，壩體厚度愈厚、水流強度弱及填充石材孔隙小之壩體囚砂效益越佳。在孔隙型與全封閉型防砂壩囚砂效果比較方面，孔隙型防砂壩在中砂粒徑以上之泥砂具有較好之囚砂效果。

關鍵詞：孔隙型防砂壩、囚砂比、水下堆積體。

Fine Sediment Trapping Effect by Porous Check Dams

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ABSTRACT This experimental study focused on the sediment trap effect of porous check dam and closed type check dam. This research used regular water depth and provide two kinds of sand in each experiment, which use digital camera to take the under water delta moving situation. The thin dam, the macropores material in the same water depth, or the same material in the shallow depth would lead the moving speed of delta to be fast. According to the experiment, the optimal sediment trap effect of porous check dam could be influenced by the thick dam, weak flow intensity, and the micropores material in the dam.

Key Words: porous check dam, sediment trap ratio, delta.

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