

Research regarding canal ablation and damage burden

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From the perspective of sedimentation measure and comprehensive earth management, importance of earth supplying facilities, transporting earth from dam reservoir to downriver, is raising. For such facilities, along with down flow of earth, ablation and damage from impact by sand gravels is a problem, however, actual situation is, the degree and assessment methods haven't been found yet.

In this research, we performed damage value measuring test using easily damaged materials, such as paraffin and absorbent sponge, and researched damage characteristics (relationship between impact and damage value). In addition, we verified characteristics of PVDF, which can convert impact to voltage to measure the impact directly.

As a result, we clarified PVDF output characteristics as the impact value assessment method and damage characteristics of paraffin and absorbent sponge.

Keyword : collision, impact, ablation damage, kinetic energy, impulse