多層透水層による波浪変形特性に関する実験的研究

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要旨: 本研究では、多層の透水層による波浪変形を予測する理論式を誘導した際にその検証 データが必要となることを考慮し、水理実験により鉛直方向に透水性が異なる場合および水平方向 に透水性が異なる場合についての波浪変形に関する実験データ(波高減衰率、線形抵抗係数、 反射率、透過率)を整理し、その特性を検討する。

キーワード: 多層透水層, 波高減衰, 線形抵抗係数, 反射率, 透過率

Experimental Study on Characteristics of Wave Deformation by Multi-Permeable Layer

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Synopsis: This study examines wave deformation due to porous media of single and multi layers as modeled porous horizontal seabed and vertical breakwaters. By utilizing the theoretical dispersion relation including permeability of seabed, linearized friction factors of porous media are estimated through hydraulic experiments. The characteristics of friction factors are examined with respect to wave conditions and porous media. The reflection and transmission coefficients are also obtained for uniform and multiple porous breakwaters. These experimental data will be used as the verification data for newly developed wave models taking into account of multiple porous layers installed in coastal areas.

Keyword: porous seabed, porous structures, wave deformation, wave reflection, wave transmission, linearized friction factor