

عنوان مقاله:

WAVE ACTION ON PARTIALLY IMMERSED SINGLE AND TWIN VERTICAL BARRIERS

محل انتشار:

چهارمین کنفرانس بین المللی سواحل و بنادر و سازه های دریایی (سال: 1379)

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خلاصه مقاله:

The wave transmission, reflection and energy dissipation characteristics of partially immersed single and twin vertical barriers were studied using physical models. Regular and random waves of wide ranges of input wave conditions were used. On an average, the twin barrier is found to be capable of reducing the transmission, increase the wave reflection and increase the energy dissipation compared to the single barrier under identical immersion and wave conditions. For certain situations, due to resonance, twin barriers reflect and dissipates less energy than a single identically immersed barrier. It is possible to achieve transmission coefficient less than 0.20 for six immersion configurations with relative depth of immersions of the twin barrier less than (0.28, 0.43), especially in the region closer to deep water conditions. It is found that twin barrier, especially in random wave fields can dissipate about 40% to 60% of the incident wave energy.

کلمات کلیدی:

Partially immersed single and twin barriers, Breakwater for deep waters, wave reflection, transmission, energy dissipation, resonance

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