Nonstationary Surfactant Dynamics in the Field of Edge Waves above a Nonuniform Beach

E.L. Averbukh, A.A. Kurkin

Nizhny Novgorod State Technical University, Nizhny Novgorod

Key words and phrases: amplification; cutoff frequency; energy; impurity dynamics; topographic trapped waves.

Abstract: The dynamics of impurities in the field of topographic trapped waves over a cylindrical shelf, whose parameters vary slowly in the long shore direction, was investigated within linear shallow water theory. There was studied the slow long shore variability influence of the underwater topography on the parameters of the velocity field and concentration of pollution. The effect of the minimal frequency was noted, which can lead to non-transmission of higher waves modes, and hence, can increase the concentration of impurities in this area.
