

Galperin Readings 2011 - Innovative Technologies and Fundamental Researches, 2011

Modeling of the natural vertically directed body waves generation processes in geological media

Kamilov M., Rizhov V., Biral'tsev E., Berezhnoj D.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The report reviews interdisciplinary problem relevant to the search method hydrocarbon a low-frequency seismic sounding, based on the study of resonance properties of geological media. Problem is in the representation of the process of natural formation of a vertically directed body waves in a geological medium. In this survey was suggested and simulated a scattering mechanism of surface Rayleigh waves on inhomogeneities with Poisson's ratio different from the enclosing environment. The result of simulation of the upper part of the section as a set of layers consisting of elements with a random Poisson's ratio is observed a natural formation of a vertically directed volume waves.
