



Thermal neutron observations: a possibility to develop a new method of seismic hazards prediction

E.A. Sigaeva, B.M. Kuxhevskij, O.Yu. Nechaev

Skobeltsyn Institute of Nuclear Physics, Moscow, Russian Federation (belka@srd.sinp.msu.ru)

The problem of creation of an effective methods for the earthquakes prediction (long-term or short-term) is of great importance up to now. Earlier the authors have proposed an absolutely new physically grounded approach to solve the problem of short-term (dozens of hours, several days) prediction of the natural hazards, such as the earthquakes and volcanos' activity. The method is based on the Earth-based observations and analysis of the neutron radiation variations reasons. The connections between the reasons of the neutron radiation variations near the Earth surface and different geodynamical and space-physical processes were found in different seismically-active regions (such as Tyan-Shyan, Pamir and Kamchatka).

Beginning from 2000 the authors have observed and analyzed the connections between thermal neutron splashes parameters (amplitude, duration) and parameters the earthquakes (distance from the neutron experimental plant, depth, magnitude, etc.) in Kamchatka. The report presents the first results and conclusions of this work.