Geophysical Research Abstracts
Vol. 14, EGU2012-6912-1, 2012
EGU General Assembly 2012

The results of microseismic observations in the Baksan Neutrino Observatory, Russia

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The Baksan Neutrino Observatory, Institute for Nuclear Test of the Russian academy of sciences is the physical observatory for neutrino researches. The observatory is located in the Baksan canyon, Caucasus. Undersurface construction are located in two galleries which lengths are of 3670 and 4045 m.
The area of Baksan Neutrino Observatory is characterized by rather high intensity of natural geodynamic processes. One of manifestation of them is amount of small seismic events that were formerly revealed in July 2006 during short-period observation. In June 2011 the stationary seismic network was installed in the mine. It includes 7 stations (one triaxial and six vertical) that aims to monitor both local and regional seismicity of Elbrus volcanic area.
Observations show good conditions for microseismic monitoring. It was found very low level of ambient noises close to NLNM (Peterson, 1993) in frequency range up to 5 Hz.
A lot of seismic events recorded during the first 6 months confirm a high tectonic activity of the region. All events may be divided into 2 groups. The first one includes regional events at the distance of tens and hundreds km. The second one collects all local events hypocentral distance of which doesn't exceed 3 km and local magnitude goes down to -3. Localization of the last events (about 80% of total amount) allows to distinct areas of different geodynamic activity.