



## **Vibroseismic Monitoring of the Baikal Lake Seismic Active Zone and Taman' Mud Volcano Province**

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A paper presents the results of the vibroseismic monitoring research in seismic active zone of the Baikal Lake and Taman' mud volcano province. Monitoring of the seismic active central part of Baikal rift zone is carried out since 2004 with the use of the vibrator CV-100 located on geophysical observatory "Souhoi Rouchei" near the lake Baikal. It is used vibroseismic interferometry method based on the seismic sounding of the region by powerful seismic vibrators with a long time radiation of narrow-band harmonic signals. The changes in the stressed-deformed state are determined through the variations of the amplitude-phase characteristics of stationary harmonic wave fields, which are excited in the Earth's crust due to a long-time radiation of harmonic signals of constant frequency from the vibrator. In Taman' mud volcano province the vibroseismic monitoring field works were carried out with the use of vibrator CV 10/180 and mobile recording systems on the volcanoes Shugo and Karabetova gora. The methods of vibroseismic tomography and seismic profiling are used for the volcanoes structure investigations and monitoring of geodynamic processes. The results of the field work are presented.