



Seismicity and geodynamics of Transbaikalia

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The territory of Transbaikalia adjoins to the Baikal rift from the south-east and according to existing views occupies a part of the Amurian lithospheric plate which displaces to the south-east relative to the Eurasia at a rate of 2–3 mm/year from geodetic data. But the plate velocity and direction of movements along with its relation to a set of large lithospheric blocks are still under discussion in geological, geodetic and seismological studies. The intensity of modern tectonic movements in Transbaikalia is considerably weaker than in the Baikal rift and associated with geological structures of different ages developed under various geodynamical settings. On the background of the major geodynamical processes it causes moderate seismic activity and rare occurrence of felt earthquakes ($M_w > 4.5$) which focal parameters have a key role in assessment of the stress-strain state of the crust in the region and understanding of character of the Amurian plate movements. To fill the gap in seismological data we have calculated seismic moment tensors for 16 local earthquakes and thus sufficiently increased the number of reliable focal mechanisms in the study area. The results prove the predominance of thrust movements in the origins of the intraplate earthquakes and strike-slips for the seismic events located at the south of the region. Thereby, we have obtained evidences of dominating activity of the uplifts in Transbaikalia and more precisely traced the movement kinematics at the plate margins.

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