

ABOUT ONE IMPORTANT FEATURE IN STRUCTURE OF EARTH CRUST

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According to the geophysical data obtained to the present time, in structure of Earth crust is mentioned one important feature, typical as for platform areas and for mountain belts. This feature consists that on depths of 7-17 kms the subhorizontal zone distinguished by reduced the velocity of elastic waves (waveguides) and high electrical conductivity with resistivity 0,1-1,0 ohm is selected. This zone has crack fractures and is saturated by mineralized water solutions. The Kola super-deep well confirms availability on large depths in crystalline rocks of subhorizontal water encroachment zones. The describing zone places on a boundary of upper fragile - rigid parts of Earth crust and on a lower plastic. If there is large horizontal stress happens the detachment of upper fragile - rigid parts of Earth crust and its slipping along lower plastic one. As the result, goes the formation of a cracked zone on a boundary between upper and lower layers of crust. Availability of a subhorizontal cracked zone is marked on Baltic shield, Russian plate (Tatarstan), in limits of mountain-fold facility of Thien-Shan. Horizontal stresses necessary for formation of detachment of upper crust on Baltic shield are generated on a part of Middle-Arctic ridge, on Thien-Shan from Indo-Australian lithosphere plate. Both on Baltic shield and on Thien-Shan belt the majority of earthquake sources places on depths of 5-15 kms. There is a basis to consider that the significant part of earthquakes happens as the result of stress discharge, arising in the time of slipping upper crust on lower. As the availability of a subhorizontal fracture zone deviding upper and lower part of crust, distinguishing by rheological properties, is marked as in stability (shield, platform), and in mobile (mountain-fold facility) areas of the Earth, is possible to assume, that this phenomenon has global propagation.