

# **Deep structure and geodynamic model of North Eurasian lithosphere along Altai – South Siberia – Sachalin global geoscience transect (GGT)**

EGOROV, A.S., CHISTYAKOV, D.N., GURIEV, G.A., ZOTOVA,  
I.F., MOVCHAN, I.B.<sup>1</sup>

EGORKIN, A.V., KOSTYCHENKO, S.L., SOLODILOV, L.N.<sup>2</sup>

<sup>1</sup> VSEGEI, ST.-PETERSBURG, <sup>2</sup> GEON, MOSCOW, RUSSIA

The GGT is one of element in the Atlas of maps and sections along five global geotransects that is prepared for publication in VSEGEI and GEON-Center. This Atlas includes six maps and three sections in 1:2 500 000 horizontal scale

The geotransect crosses the south part of Siberian platform as well as its fold's frame: Altae-Sayan, Baikalian and Amur fold areas.

The results of geological and geophysical modeling allowed to evaluate the deep structure of crystalline basement of Siberian platform. Herewith, the green-stones belts, Lower-Proterozoic rifts are distinguished.

The deep sections of Paleozoic and Mesozoic fold areas are formed by microplates with ancient crust of continental type, which are separated by suture zones. The last ones have the bilateral morphology in near-surface level of crust and include the system of tectonic allochthons, composed by formations of ancient island arcs and oceanic crust.

Within fold areas we observe the systems of major strike-slip zones that are associated with the pattern of synthetic and antithetic strike-slips, thrusts and normal faults. Its general width is about 100 km. The volcanic troghs and sedimentary basins are associated with the zones.

The results of geological and geophysical modeling and palinspastic reconstructions allowed to investigate the deep structure and evolution of the craton and surrounding fold areas.