

THE NEW PALEOMAGNETIC DATA FROM THE SIBERIAN TRAPS INDICATE THE RIGIDITY OF THE NORTHERN EURASIAN PLATE SINCE LATE PERMIAN.

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The possibility of the relative motions of the Siberian and East-European platforms since Late Permian was already discussed in the paleomagnetic literature. Comparing the paleomagnetic data, available by this time for both Siberian and East-Europe platforms, Bazhenov and Mossakovsky (1986) had determined the meaningful difference between corresponding Permo-Triassic poles. The authors suggested to explain this difference by the rotation of the Siberian platform relatively to East-Europe platform 10 degrees clockwise. On the other hand, with the purpose to resolve some serious paleotectonic reconstructions problems arising from the paleomagnetic data obtained from the Mezozoic rocks of some North Chinese and Mid Asian tectonic blocks, J.P.Coqne et al. (1999) suggested to undergoing the relative motions along the Tornquist line and Ural fold belt.

During the 90-ties, in connection with the getting of the new Siberian Permo-Triassic paleomagnetic data, meeting the modern standards of quality, Kamenshikov et al. (1996), Pavlov et al. (2001) again return to this question. In distinction from the Bazhenov and Mossakovsky (1986) these authors suggest anticlockwise post-Permian rotation of the Siberian platform relatively to East-Europe platform one.

Trying to resolve this contradiction and in order to enlarge the Siberian Permo-Triassic paleomagnetic database we have studied the Permo-Triassic Siberian traps and sedimentary rocks, remagnetized by them, cropping out along the valleys of Podkamennaya Tunguska and Kotuy rivers (central and northern Siberia corresponding). During the laboratory treatment the Permo-Triassic magnetization have been isolated in the most part of the studied samples. Calculated paleomagnetic poles along with some previously obtained, meeting the modern standards, Permo-Triassic poles (Gurevich et al., 1996; Kamenshikov et al., 2002) yield the mean Siberian Permo-Triassic paleomagnetic pole, which can be used for paleotectonic reconstructions.

The comparison of the obtained mean pole position with the coeval part of the different APWP's proposed for East-European platform, indicates, that since Late Permian the Siberian platform should have displaced at distance 1000 km at least relatively to East-European platform. However all available geological data resist to this conclusion. Therefore we were forced to revise the method of calculation of the platforms relative motions and to use for reconstructions not APWP's but immediately European paleomagnetic poles dated both by stratigraphic or isotopic methods. We believe that this way is more correct than method, which uses the artificial poles taken from APWP's.

The comparison of the mean Siberian Permo-Triassic paleomagnetic pole with this one of "Stable Europe", obtained from individual Permo-Triassic poles (retrieved from World Paleomagnetic Database (Lock, McElhinny, 2001) with only one requirement: demagcode should be not less than 3), does not indicate any meaningful difference between these poles positions. It means that presently we have no any paleomagnetic reasons to affirm that the Siberian and East-European platforms underwent any relative motions since Late Permian. Of course it does not exclude completely the possibility of such motions, however it confines their possible scale (if they were) within the limits of achieved accuracy of the paleomagnetic determinations.

The obtained result can be considered as a evidence for rigidity of the North Eurasian plate since Late Permian.