GC2024-PERM001

Problems of paleomagnetism in the Altai-Sayan region and Mongolia

Dmitry V. Kovalenko[1] , Margarita V. Buzina[1]

[1] Institute of geology of ore deposits, petrography, mineralogy and geochemistry Russian academy of sciences (IGEM RAS)

kovmit@yandex.ru

Generalization of paleomagnetic data for Tuva, Khakassia and Mongolia showed that the curves of latitudinal displacement of Siberia, Tuva, and northern Mongolia differ insignificantly and, possibly, these geological blocks, starting from the Ordovician, moved as a single geological body. South of the Mongol-Okhotsk suture to the west of the 107^{o} meridian, the paleolatitudes of the formation of the Late Carboniferous-Permian strata are close to the "Siberian" ones, and to the east of the meridian - to the North Chinese ones. The wide variations in the declination of the magnetization of sequences located south of the Mongol-Okhotsk suture could possibly be associated with strike-slip displacements that were active in southern Mongolia during different periods of the Late Phanerozoic. The regions of Tuva, Khakassia and Mongolia differ sharply in the set of components of the natural remanent magnetization of Phanerozoic rocks. Postfolding Permian remagnetization of rocks by a magnetic field of reverse polarity is widespread in Mongolia. In Tuva and Khakassia, perhaps the secondary Permian magnetization is pre-folding.