

THE STRUCTURE OF THE ANCIENT GEOMAGNETIC FIELD:
A STUDY OF PERMIAN LAVA PILE IN NE KAZAKHSTAN

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Our understanding of the evolution of the geomagnetic field over millions and billions of years is very important for deciphering the development of our planet, its core in particular. In order to achieve this goal, both new ideas and a huge amount of reliable paleomagnetic data must appear. Of particular importance are the results on thick lava series and large dyke swarms from different parts of the globe and of various ages. Unfortunately, such data are still scarce for the Mesozoic and most of the Cenozoic and absent altogether for the Paleozoic. A paleomagnetic and geochronological study of a > 2000 meters thick lava pile of presumed Late Permian age in NE Kazakhstan is performed. A new age of ca. 283 Ma on magmatic zircons from a rhyolite flow indicates that the rocks studied are in fact older than previously thought. Reliable precisely defined paleomagnetic data are obtained on 64 flows out of 66 studied from an interval of ~ 1600 meters. The presentation will be dedicated to description of the new results and their comparison with available data.