



Paleomagnetism, magnetic fabric and geochemistry of the Riphean intrusions of the Bashkirian zone (the Southern Urals).

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We present the results of the study of the basic dikes and the Berdyaush pluton of the Southern Urals. The studied objects are located in the core of the Bashkirian zone and related to the Riphean stage of rift magmatism of the East European craton. The Berdyaush pluton consists of syenites and rapakivi granites and cut by dolerite dykes. The U-Pb dating of the Berdyaush granites and syenites yielded the ages of about 1370 Ma (Ronkin et al., 2005). Besides, we obtained the new U-Pb age of 1349 ± 11 Ma for the dolerite dike cutting the rapakivi veins and marbles of the host Satka Formation.

According to the geochemical features, the studied basic intrusions can be divided into three groups. The first group is the most enriched and close to OIB. The second group is less enriched and has the lower La/Yb ratios compared to the first group. The third group is the least enriched, has the slight Ta-Nb anomaly and the lowest La/Yb ratios. The dikes related to the Berdyaush pluton constitute the first and second groups, while the third group is found in the Bakal-Satka district.

We also performed the paleomagnetic investigation of the basic intrusions and obtained the new paleomagnetic pole for the high-temperature component of remanence: $P_{\text{long}}=163.0$, $P_{\text{lat}}=8.1$, $A_{95}=4.3$. The obtained pole is located between the published poles for 1265 and 1458 Ma for the East European craton (Lubnina et al., 2009; Buchan et al., 2000). This result is the important contribution to the APWP of the East European craton in the Mesoproterozoic and can be used in the reconstruction of the "Columbia" supercontinent breakup. Besides, we found the middle-temperature component of remanence which can be attributed to the Later Paleozoic remagnetization during the Uralian collision event.

The measurements of the anisotropy of magnetic susceptibility demonstrate three types of the magnetic fabric. About 40% of the studied objects demonstrate the "normal" type of the AMS ellipsoid, when the minimal axis K3 is normal to the contact of intrusion and the other two axis lie in the dike plane. In other sites we found either inverse magnetic fabric, when the maximal axis K1 is normal to the dike plane, or intermediate fabric, when the middle axis K2 is orthogonal to the contact of intrusion. Also, in some sites the dispersed fabric was observed. When the K1 axis lies in the dike plane, we were able to reconstruct the magma flow lineation. Generally, the dikes related to the Berdyaush pluton demonstrate the shallow magma transport from the west to the east.

The Berdyaush pluton is bounded by the Bakal-Satka regional fault of NE trending in the west. As the studied dikes are generally transverse to this fault, we assume that it acted as the long-lived magma feeding zone, which controlled the emplacement of basic dikes and the Berdyaush pluton itself in Riphean.

This work was supported by RFBR (project № 17-05-01121) and the Ministry of Education and Science RF (project № 14.Z50.31.0017).