SUPPLEMENT

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Anomalous magnetization of the Permian-Triassic Nedubrovo red beds, Moscow basin

Fig. 1. Location of the Nedubrovo outcrop (a) and its photos: the upper part (b) and the lower part (c).

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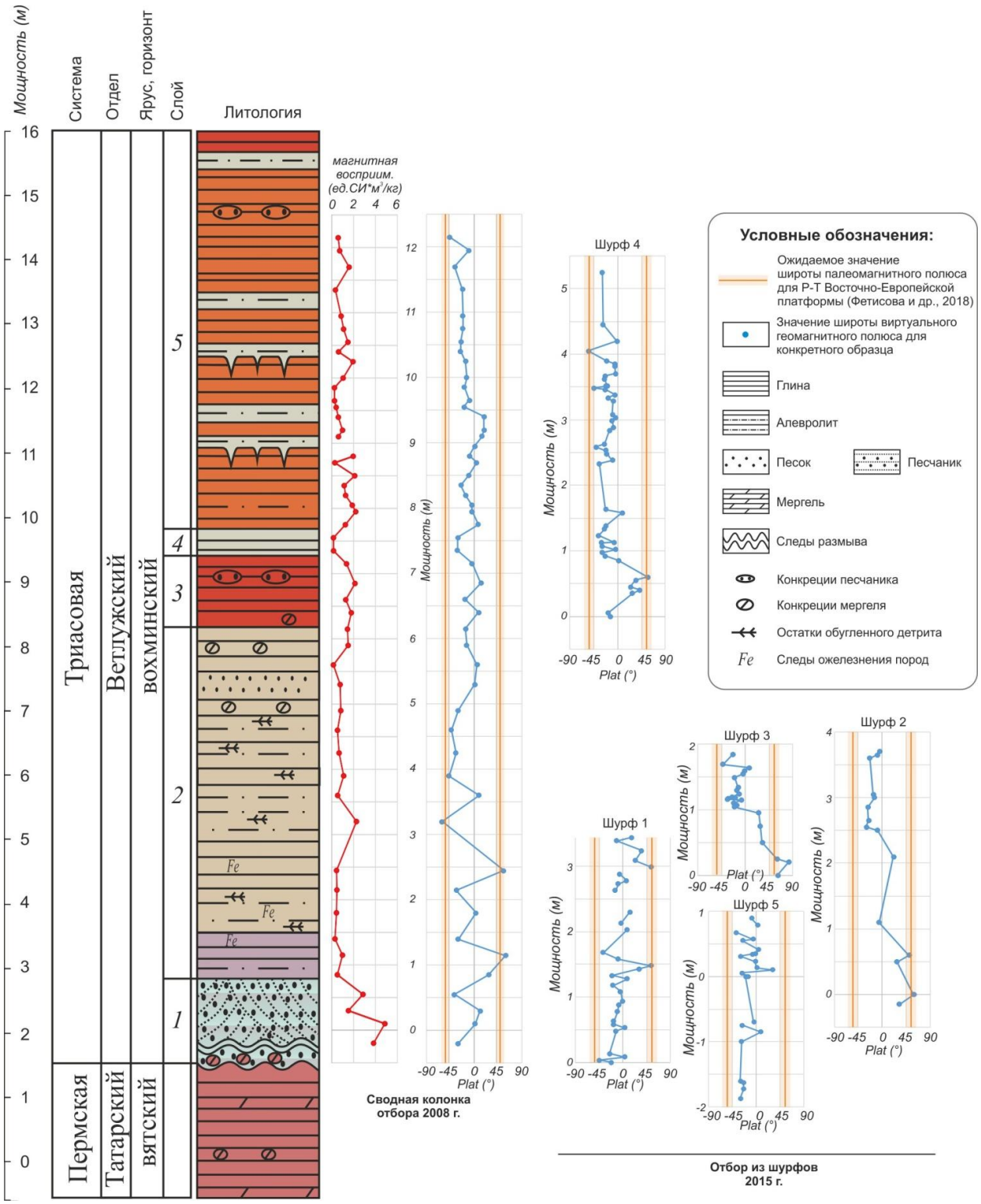

Fig. 2. Lithostratigraphic column of the Nedubrovo member (layers 1-5). Red dots – the value of the mass magnetic susceptibility according to the current sample position; blue dots – the latitude of the virtual geomagnetic pole (VGP) corresponds to the characteristic magnetization's direction for each sample.

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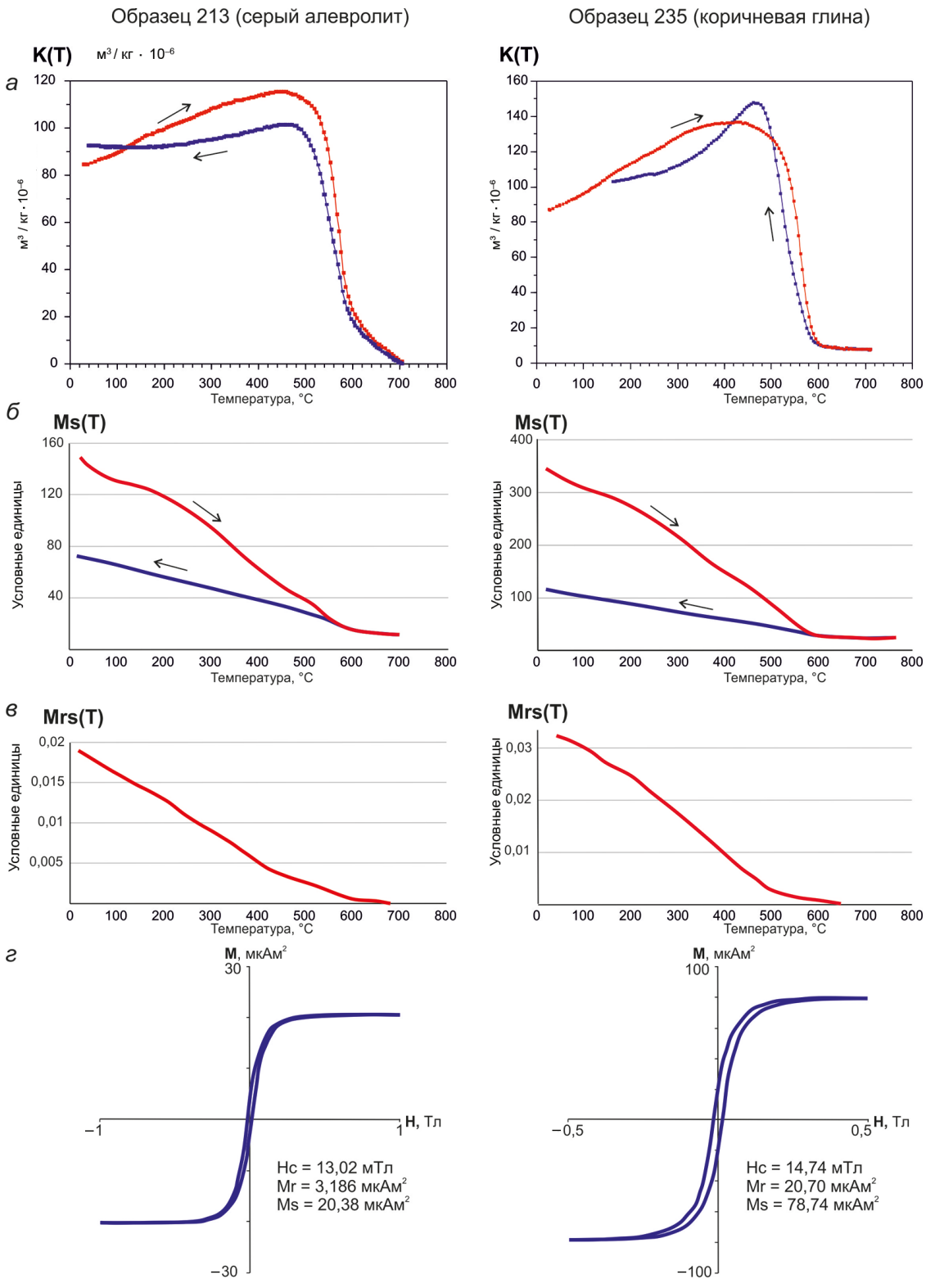

Fig. 3. Rock-magnetic data from two samples (grey siltstone and brown clay): (a) temperature dependence of the magnetic susceptibility (K); (b) saturation magnetization (Ms); (c) saturation remanence (Mrs); red curve – heating stage, blue curve – cooling stage. (d) hysteresis curves (corrected for para-diamagnetism).

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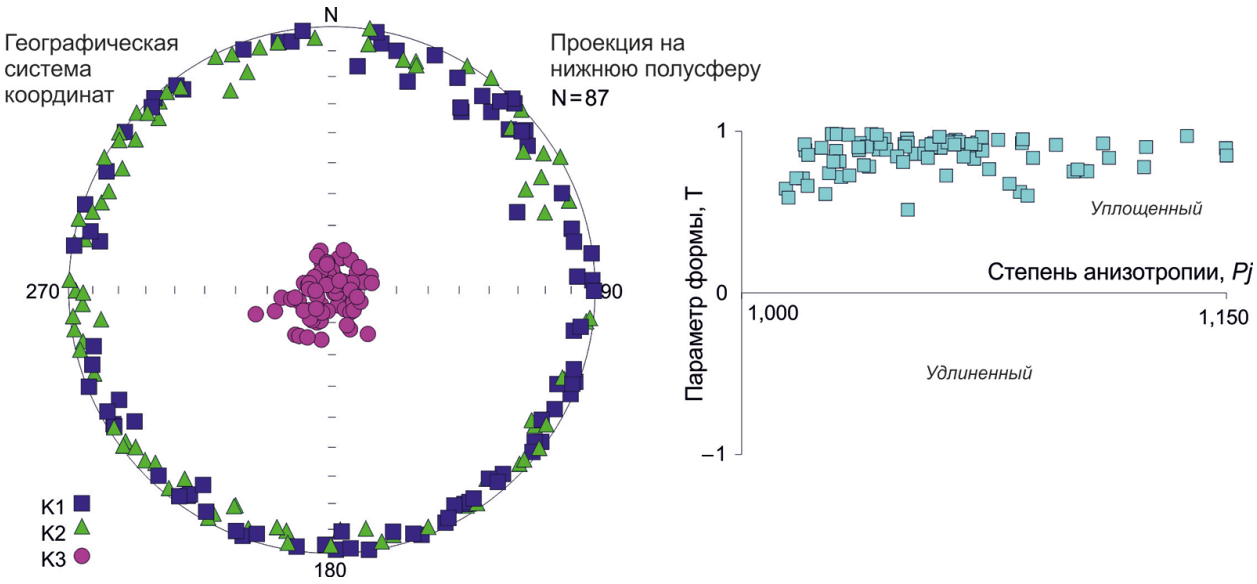

Fig. 4. Measurement results of AMS.
Anisotropy of the magnetic susceptibility (AMS) data and Jelínek diagram (Jelínek, 1981) illustrating dependence of shape parameter of AMS ellipsoid (T) (oblate/prolate) on degree of anisotropy (Pj). In stereograms, K1, K2, K3 are projections of maximum, intermediate, and minimal axes of AMS ellipsoid on the lower hemisphere.

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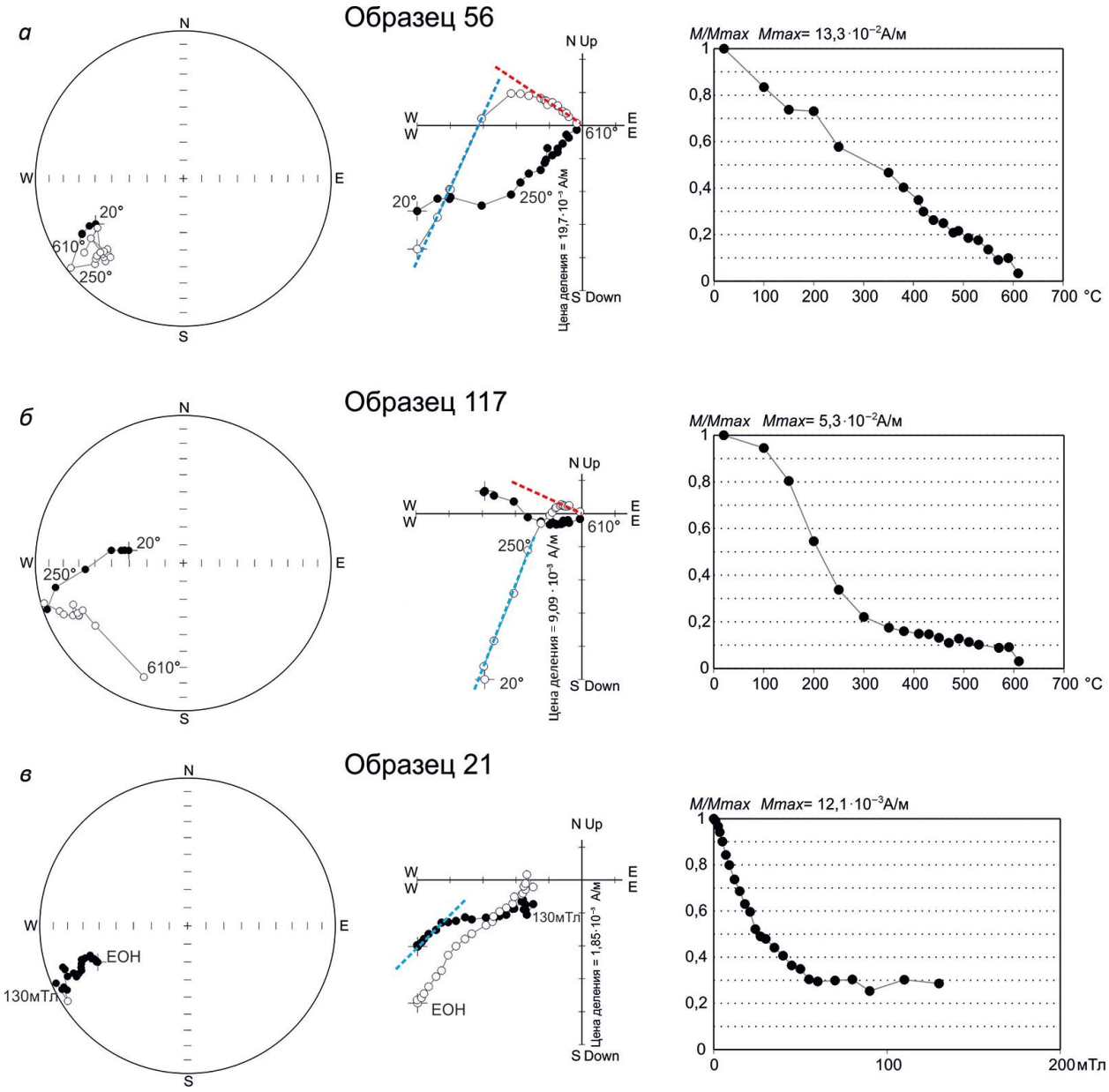

Fig. 5. Thermal demagnetization plots (*а, б*) and AF-demagnetization plots (*в*) of representative samples: Zijderveld plots, stereoplots and NRM demagnetization curves. Thick dashed lines denote paleomagnetic components. On stereoplots, solid (open) symbols are projected onto the lower (upper) hemisphere. On Zijderveld plots, solid (open) symbols are projected onto the vertical (horizontal) plane. The blue dashed line is the low-temperature (low-coercive) component of NRM, red dotted line marks the direction of high-temperature characteristic component (ChRM).

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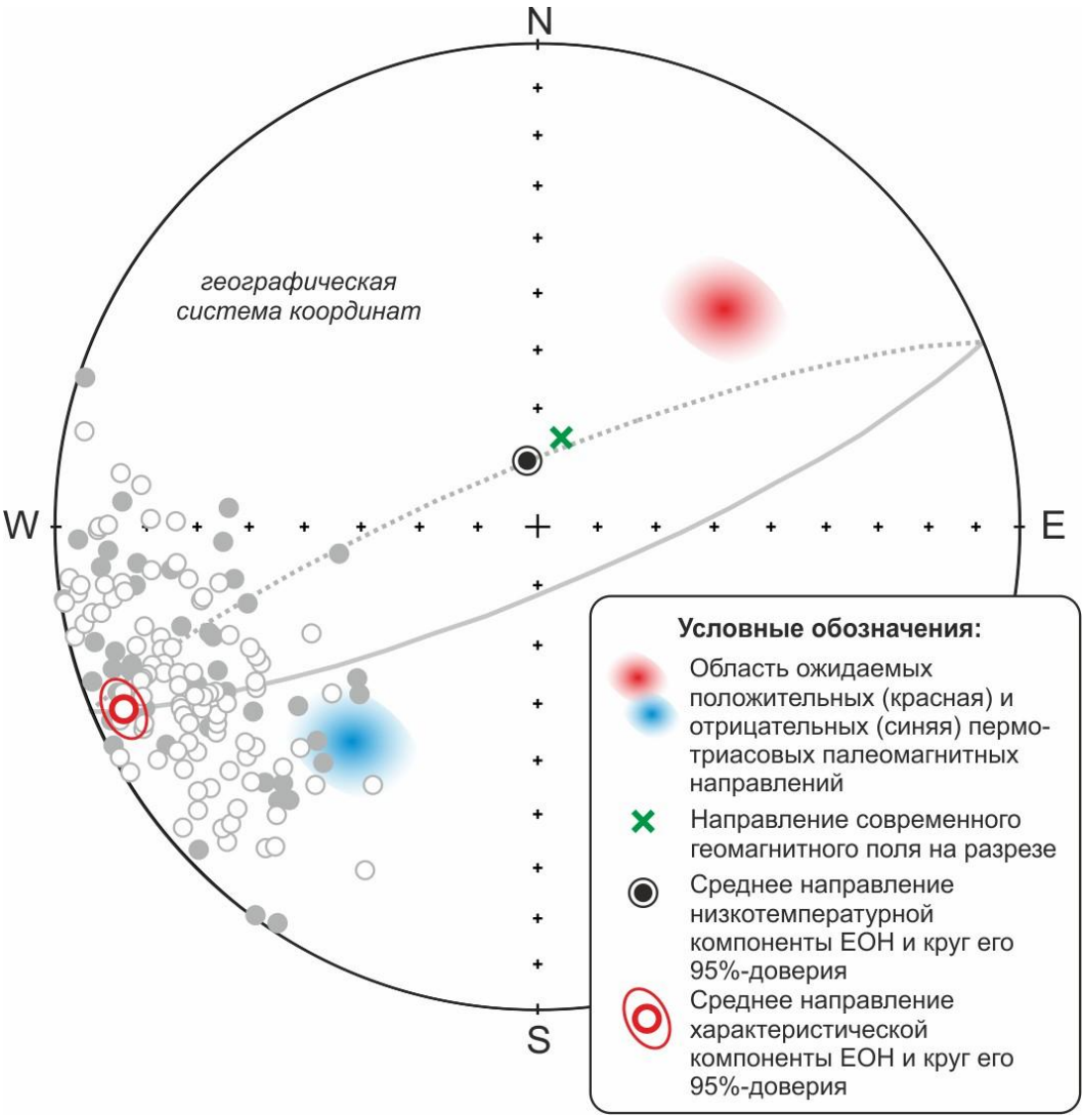

Fig. 5. Distribution of the characteristic remanent magnetization (ChRM) in the studied samples (grey open and filled dots). Mean paleomagnetic directions for the ChRM (red circle) and low-temperature component (black circle) and their 95%-confidence circles. Areas of expected paleomagnetic directions are shown according to (Fetisova et al., 2018).

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