



Paleointensity determinations on Proterozoic rocks from Karelia, Baltic shield

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Paleointensity determinations were carried out by Thellier method (including the check point procedure) on the collection of samples from dike field of 1460 Ma age, located on the North coast of the lake Ladoga, Karelia, Russia. The thermal stability and Curie points (T_c) of the samples was estimated by series of progressive heating in strong magnetic field, the domain structure (DS) of the ferromagnetic grains was inferred using common hysteresis parameters H_c , H_{cr} , M_s and M_{sr} completed with the thermomagnetic criteria (measuring the value of the pTRM tail). T_c of the samples close to T_c of magnetite, while their DS are of PSD type. Three sites, represented by more than 10 samples, gave successful Thellier results yielding $VDM = 2.03, 3.08, 4.48$ (10^{22} A^2), respectively. These results are in a good agreement with the data obtained for this time interval by other authors. Apparently, all these data indicate low geomagnetic field values for the Middle Proterozoic. The work is supported by INTAS 03-51-5807.