

Paleointensity of an Archean dyke from Nuuk Area in southwest Greenland

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Paleointensity studies by Thellier method have been conducted on an 2800 Ma dolerite dike intruded into Archean Nuuk Gneiss in Southwest Greenland. The primary natural remanent magnetic component with unblocking temperature of about 580 degrees was recognized preliminarily. (Miki and Otofujii 2004). Ordinary rock magnetic experiments were carried out in order to evaluate magnetic mineralogy and grain size. The rockmagnetic results with thermal demagnetization curve of NRM show the magnetic carrier of pseudo single domain magnetite. The suitability for Thellier experiments were also ascertained. The reliable paleointensity results were obtained from 7 samples preliminary. The mean paleofield intensity is 13200 nT, yielding visual dipole moment of $2.15 \times 10^{22} \text{ Am}^2$. This value is about one quarter of the present value. The results support the low dipole moment of 2.7 Ga to 2.8 Ga.