Comparative study of the Thellier and LTD-DHT Shaw methods: some paleointensity results from same paleomagnetic cores

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Correct determination of absolute paleointensities is essential to investigate the past geomagnetic field. There are two types of methods to obtain paleointensities: the Thellier-type and Shaw-type methods. Although many paleomagnetists prefer the former method in recent decades, the group at Tokyo Institute of Technology, Japan, has developed a significantly improved version of the original Shaw method (Shaw, 1974), i.e. the LTD-DHT Shaw method (Tsunakawa et al. 1997; Yamamoto et al. 2003). During the past few years, our group has shown successful applications of this method using several historical lava flows (Yamamoto et al., 2003; Mochizuki et al., 2004; Oishi et al., 2005). For a further consideration of its usability, it is important to compare its outcome with that by the usual Thellier method. I have been accumulated a number of paleointensity results from same paleomagnetic cores both by the Thellier and the LTD-DHT Shaw methods. This collection covers 0-5 Ma basalts, andesites, and dacites. I will introduce several pairs of the results from this collection.