



Preliminary Equatorial Paleomagnetic results from Mt Kenya lavas

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Field work on this study was carried out in August of 2006 by field parties from the University of Florida and Rutgers University. Mt Kenya is believed to be Plio-Pleistocene in age and an Argon dating survey is underway. Ten samples were taken at each site consisting of one exposure in individual lava flows. These exposures are usually in road cuts, streambeds and in some cases roadbeds. We sampled 100 sites distributed around the Mt Kenya Massif and to the northeast along the Nyambini range. The equator bisects Mt Kenya and all sites were sampled within 40° north or south of the equator. The samples were returned to the US and processed at the University of Florida paleomagnetic laboratory. Many sites were severely affected by lightning however after demagnetization 68 sites yielded directions with alpha 95's equal to or less than 10°. Normal magnetized sites dominate, with N=58 (Dec=1°, Inc -0.1°, α 95=2.6°) whereas only 10 reverse sites (Dec=181.9, Inc. 0.6° α 95=8°) were identified. The combined site mean direction is Dec=1.1°, Inc.=-0.2° and α 95=3.2°. This result is not significantly different from what is expected from the geocentric axial dipole. VGP's were calculated from each site and the dispersion is low with the ASD=11° which is in agreement with model "G" of MacFadden and McElhinny. No transitional directions were identified. Quadrupole components are not resolved.