

(1)

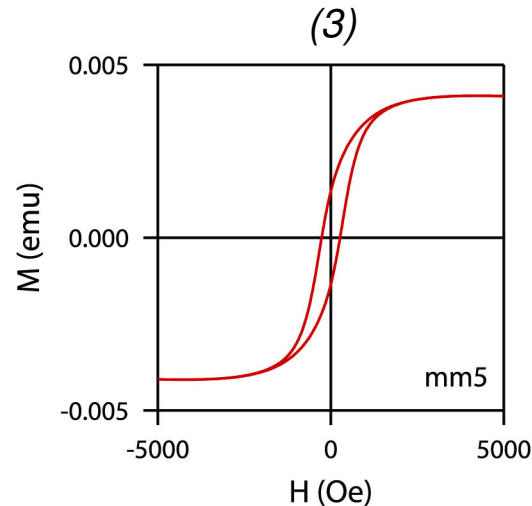


The Paleomagnetism of Mesozoic Dikes of Mauritania: Implications for Motion and Stability of Africa

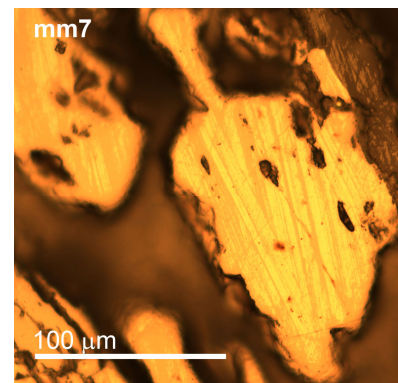
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Mesozoic (~200-million-year old) basaltic dikes from the Sahara are potentially ideal recorders of the past geomagnetic field that can provide insight about motion of the cratons that compose the African continent during rifting of the Atlantic Ocean. This history is in turn important for the evolution of the sedimentary basins of west Africa. During the grant period, we have (1-2) conducted expedition work to sample the rocks. We have subsequently demonstrated that they have rock magnetic properties (3) related to high temperature oxidation (4), resulting in stable magnetic directions observed during demagnetization (5), consistent with the preservation of ancient field values. These studies pave the way for future tectonic interpretations.

(2)



(4)



(5)

