

## Test of Hotspot Drift Using Recent Paleolatitude Data of Louisville Hotspot

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Harada, 2007 JPGU showed that the paleomagnetic data of the Hawaii hotspot track by Turduno et al.,2003 is explainable by a true polar wander path model calculated from the Pacific paleomagnetic skewness data and the absolute motion of the Pacific plate. That is, the paleomagnetic data of the Hawaii hotspot is not proper evidence for inter-hotspot motions.

We did similar analysis for the new paleomagnetic data sets of Louisville hotspot (Koppers et al., 2012). Paleolatitudinal change of Site U1377 (50Ma), U1376 (64.1Ma), U1373 (69.5Ma), and Site U1372 (74.2Ma) is decreasing about 5 to 10 degrees, and that is in harmony with the theoretical paleolatitudinal change by the same true polar wander path model calculated from the Pacific plate data (figure below). The true polar wander path model calculated from the Pacific data is also in harmony with the true polar wander path calculated from paleomagnetic data around the African plate and the absolute motion of the African plate, therefore the new true polar wander model can be regarded as a motion of the paleomagnetic pole relative to the global hotspot reference frame.

We conclude that the paleolatitude data of hotspots above are explainable by true polar wander and are no longer evidence for hotspot drift if any.

Keywords: Hotspot Drift, Louisville Hotspot, Paleolatitude, True Polar Wander Path

