

Supplementary Materials for

Dominant 100,000-year precipitation cyclicality in a late Miocene lake from northeast Tibet

Junsheng Nie, Carmala Garziona, Qingda Su, Qingsong Liu, Rui Zhang, David Heslop, Cristian Necula, Shihong Zhang, Yougui Song, Zeng Luo

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The PDF file includes:

- fig. S1. A comparison of oxygen and carbon isotope data of the HTTL section.
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- fig. S4. A comparison of power spectrum of full (lower) and truncated (upper) insolation for July at 35°N (73).
- fig. S5. A comparison of HIRM and *L* ratio for the HTTL samples.
- table S1. Age tie points used to establish the age model for the HTTL section.

Other Supplementary Material for this manuscript includes the following:

(available at advances.sciencemag.org/cgi/content/full/3/3/e1600762/DC1)

- data set S1 (Microsoft Excel format). HTTL section paleoclimatic data in Fig. 4.

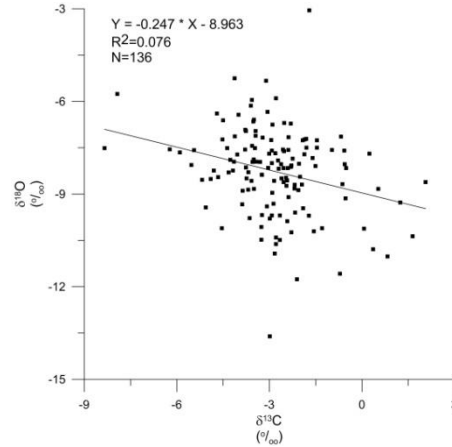


fig. S1. A comparison of oxygen and carbon isotope data of the HTTL section. The lack of positive correlation between the data supports sedimentary interpretation of open lacustrine depositional environment for this set of strata (19).

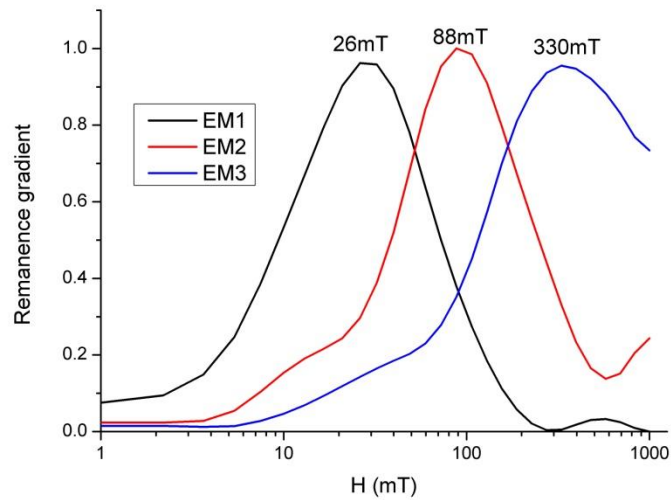


fig. S2. Unmixing of backfield IRM curves of the HTTL samples. The 26 mT component corresponds to fine magnetite/maghemite; the 88 mT component corresponds to partially oxidized coarse magnetite; the 330 mT component corresponds to hematite.

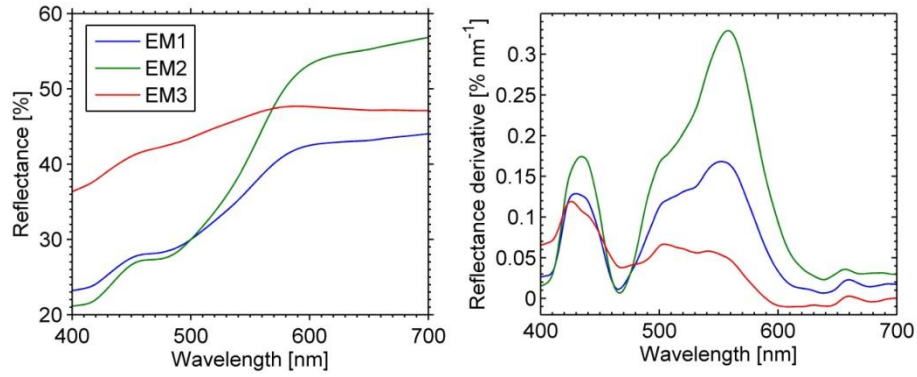


fig. S3. The smoothed end-member reflectance spectra (left) and its first derivative spectra (right) for the HTTL samples. EM3 mainly corresponds to chlorite with minor hematite and goethite contribution; EM1 and EM2 mainly correspond to hematite and goethite.

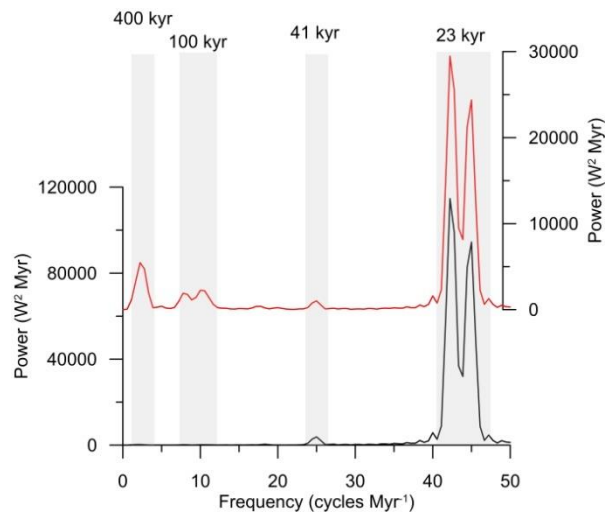


fig. S4. A comparison of power spectrum of full (lower) and truncated (upper) insolation for July at 35°N (73). All values were subtracted from their mean insolation value, and then all negative values were set to zero to make a truncated insolation time series.

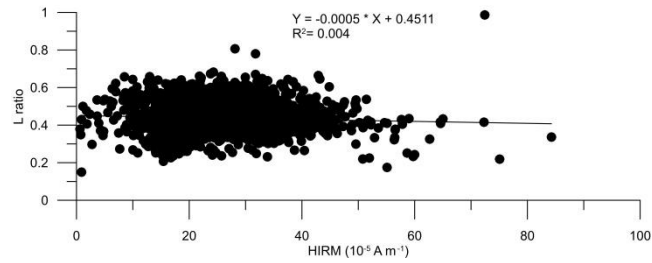


fig. S5. A comparison of HIRM and *L* ratio for the HTTL samples.

table S1. Age tie points used to establish the age model for the HTTL section.

Height (m)	Age (Ma)	Chron
1076.5	6.033	C3An.1n Top
992	6.252	C3An.1n Bottom
920.5	6.438	C3An.2n Top
828	6.733	C3An.2n Bottom
712	7.14	C3Bn Top
683	7.212	C3Bn Bottom
632	7.454	C3Br.2n Top
593.5	7.642	C4n.1n Bottom
584	7.695	C4n.2n Tom
497	8.108	C4n.2n Bottom
476	8.254	C4r.1n Tom
337.5	8.771	C4An Tom
236.5	9.105	C4An Bottom
192.5	9.311	C4Ar.1n Tom
146.5	9.426	C4Ar.1n Bottom
93	9.647	C4Ar.2n Tom
59	9.721	C4Ar.2n Bottom
49.5	9.786	C5n.1n Tom
4	9.937	C5n.1n Bottom