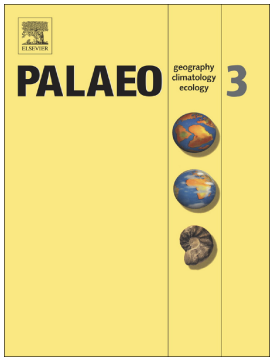

Hydrogen isotope ratios of leaf wax n-alkanes in loess and floodplain deposits in northern China since the Last Glacial Maximum and their paleoclimatic significance

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PII: S0031-0182(17)30803-9
DOI: doi: 10.1016/j.palaeo.2017.08.009
Reference: PALAEO 8400

To appear in: *Palaeogeography, Palaeoclimatology, Palaeoecology*

Received date: 15 November 2016
Revised date: 24 March 2017
Accepted date: 2 August 2017

Please cite this article as: Yangyang Li, Shiling Yang, Jule Xiao, Wenying Jiang, Xiaoxiao Yang , Hydrogen isotope ratios of leaf wax n-alkanes in loess and floodplain deposits in northern China since the Last Glacial Maximum and their paleoclimatic significance, *Palaeogeography, Palaeoclimatology, Palaeoecology* (2017), doi: 10.1016/j.palaeo.2017.08.009

Hydrogen isotope ratios of leaf wax *n*-alkanes in loess and floodplain deposits in northern China since the Last Glacial Maximum and their paleoclimatic significance

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Abstract

The hydrogen isotopic composition of leaf-wax *n*-alkanes ($\delta D_{n\text{-alkane}}$) is increasingly used as a proxy for estimating δD of past precipitation (δD_p). However, aridity can also affect sedimentary $\delta D_{n\text{-alkane}}$, complicating the interpretation of paleo-$\delta D_{n\text{-alkane}}$ records. In order to evaluate the effects of the complex interactions and balance between precipitation hydrogen isotope composition and aridity on sedimentary $\delta D_{n\text{-alkane}}$ records, we present two $\delta D_{n\text{-alkane}}$ records from the North China Plain and the western Chinese Loess Plateau across a steep east-west climatic gradient in the East Asian Summer Monsoon area since the Last Glacial Maximum. The