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4, S279–S280, 2008

Interactive Comment

Interactive comment on "A major reorganization of Asian climate regime by the early Miocene" *by* Z. T. Guo et al.

Anonymous Referee #2

Received and published: 30 June 2008

The aim of the paper is to study sedimentary indicators of the major shift supposed to affect east Asia in the Early Miocene. The authors place the peak of the shift to about 22 million years ago. They include new detailed magnetostratigraphic data on loess sequences at Gaojiazhuang and QA-1 sites. These show a substantial difference in magnetic susceptibility which decreased substantially in the layers younger than some 14.5 million years. Unfortunately the base of both sections is no more than about 16.5 million years old, leaving the critical interval between 20 and 25 million years ago, discussed in the paper only poorly documented.

The unquestionably major rearrangement of sedimentation in the studied area in the early Miocene is depicted by the sequence of valuable maps showing the paleoenvironmental reconstruction across the critical boundary. As discussed in the paper,





the shift is with highest probability linked to tectonic causes, especially those affecting the morphology of the Tibetan Plateau. While not discussed in the paper, but not entirely impossible, is the chance that the past vertical movements in the paleo Liupan, Luliang and Qinling mountains also influenced the atmospheric circulation at the analyzed time to significant degree.

Interactive comment on Clim. Past Discuss., 4, 535, 2008.

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