

## ***Interactive comment on “Stalagmite-inferred abrupt climate change of Asian Summer Monsoon at MIS 5a/4 transition” by Xiuyang Jiang et al.***

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This rather concise manuscript is part of a ongoing effort to improve the age control and resolution of the world-renowned Chinese speleothem record, providing a highly detailed history of the monsoon in China. The authors report data from two stalagmites from Sanxing cave which show synchronous variations in  $\delta^{18}\text{O}$ . This is an important time interval as it leads marks the end of the long Greenland Interstadial 21 and the transition into a generally colder climate (weaker monsoon in China). The quality of the chronology is excellent (clean, high-U calcite) and the age model is robust. Replication is achieved using the second stalagmite which covers a shorter but relevant time interval. This is largely a chronology paper which would have fitted equally well into a journal such as Quaternary Geochronology, and offers only limited paleoclimate in-

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sights. The most important aspect is the excellent chronology, slightly comprised by a hiatus in the older part.

Prior to acceptance the manuscript requires reading by a native speaker.

Minor issues: - The Introduction lacks a clear statement of the goal of this study - Indicate the location of the hiatus in both stalagmites in Fig. 3 (cf. Fig. 2) - There are some ambiguities with respect to the MIS5/4 boundary. On page 19 the authors say that this boundary is at 74 ka. Later, they state that “This rapid cooling at the end of GIS 21 at 77 kyr BP marks the transition from warm MIS 5a interstadial to cold MIS 4 stadial” (p. 4). This is also shown in Fig. 4 while in Fig. 2 the boundary is represented by broad bar. Maybe it is better not to use the MIS nomenclature and stick to the Chinese monsoon only. - The sentence on p. 5 is unclear: “and no any visible porous defect on the polished surface are observed”. What kind of defects? - The Conclusions are a bit short

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