

## ***Interactive comment on “Atmospheric brown clouds reach the Tibetan Plateau by crossing the Himalayas” by Z. L. Lüthi et al.***

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Received and published: 15 January 2015

*We thank the referee for his/her comments, which were very helpful to improve our manuscript. Below, we address the specific comments individually.*

The paper entitled “Atmospheric Brown Clouds reach the Tibetan Plateau by crossing the Himalayas” by Lüthi et al. investigates the crossing of aerosol particles from the polluted India region to the Tibetan Plateau region. This is an important and interesting topic, which fits the scope of ACP. The authors use several data sets and a trajectory model for the analysis. The analysis is clearly stated. I have several comments which the authors should be addressed before the paper can be accepted. The detailed comments are as follows.

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P8, L15-21. The authors discuss the new fine particle formation. The new fine particles are formed starting with very small size of particles (a few nm in radius). However, the FMF cannot reveal such information of the small particles. I suggest the authors to remove these sentences, or to add more solid evidences to support this point.

*The sentence about the new particle formation was removed.*

The labels of Fig. 9 are too small to read, which should be enlarged. Figs. 10, 14 are too small. It is difficult to read, please revise.

*We have enlarged the labels for more clarity in all figures.*

The English needs to be polished, and the following comments are only some examples.

*We have polished and smoothed out the text in many locations.*

(1) There are no blanks between references (many places). For example, (Ye and Wu 1998;Ma et al., 2009) should be (Ye and Wu 1998; Ma et al., 2009)

*The blanks between the references are present in the newest pdf of the manuscript (final ACPD typesetting). We have searched the document for further occurrences of this error.*

(2) The sentence in P7, L19-20 needs to be revised. (3) The sentence in P7, L20-21 needs to be revised.

*We have changed the sentence to read “Over the course of 2009 and 2010, eight cross-Himalayan pollution events were identified during the months of March, April and May. Here we present details of the most severe pollution episode that occurred on 1319 March 2009 (Fig. 2).”*

(4) P8, L1, change “Sect. 3.2 and 3.3” to “Sections 3.2 and 3.3”

*This has been implemented.*

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C11240