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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Long-range transport of mineral aerosols and its absorbing and heating effects on cloud and precipitation: a numerical study" *by* Y. Yin and L. Chen

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Response to Referee 1:

We are very grateful to Referee 1 for the encouraging comments and suggestions which helped to improve the quality of the paper. A detailed response to the specific comments is given below:

1. Since the absorbing effect is not calculated explicitly in this work, the title has been changed to as "The effects of heating by transported dust layers on cloud and precipitation: a numerical study".

2. The last sentence in the abstract has been modified to clarify the main findings.

3. The conclusion that when the mineral dust layer is located above the -5C level, the dust layer may promote the development of cloud and precipitation has been added to the abstract.

4. Efforts have been made to make the text clearer and to improve the quality of the paper.

5. Changes have been made in the revised text based on the referee's suggestion.

6. Units have been added in Table 1.

7. Thanks to referee 1 for the information, we have incorporated that into the revised text.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 3203, 2007.