

Many thanks to the editor for these helpful technical corrections. Following the comments (*Italic*), we have made corresponding corrections (**Bold**) as listed below.

The manuscript has been much improved with the revision. I appreciate the efforts the authors put into revising their manuscript. I still have several technical corrections before publishing. Please make the corrections:

1. Pg2, L19, change "to" to "for".

Changed.

2. Pg4, L10. Since you are talking about aerosol acting as ice nuclei, please add some references on this aspect such as:

Hoose, C. and Möhler, O.: Heterogeneous ice nucleation on atmospheric aerosols: a review of results from laboratory experiments, Atmos. Chem. Phys., 12, 9817–9854, doi:10.5194/acp-12-9817-2012, 2012.

Liu, X., Shi, X., Zhang, K., Jensen, E. J., Gettelman, A., Barahona, D., Nenes, A., and Lawson, P.: Sensitivity studies of dust ice nuclei effect on cirrus clouds with the Community Atmosphere Model CAM5, Atmos. Chem. Phys., 12, 12061–12079, doi:10.5194/acp-12-12061-2012, 2012.

We agree with the editor and have added more references as suggested.

3. Pg5, L15. Change "building" to "development".

Changed.

4. Pg6, L16. The definitions of acronyms "PBLH" and "RH" should be done earlier since they are used on Page 5.

Yes, they have been defined in page 5 now. Thanks.

5. Pg7, L9. change "instant" to "instantaneous".

Changed.

6. Pg8, L6. change "enter by" to "entering".

Changed.

7. Pg9, L10. change "MEP" to "CMA".

Corrected.

8. Pg12, L17. remove "the" before "AOD".

Removed.

9. Pg17, L15 and L16. "Within PBLH" should be "within PBL". You need to spell out PBL.

We agree with the reviewer. The PBLH in Lines 6,7,8,10,15 and 16 in Pg 17 and

L20 in Pg 28 are all corrected.

10. Pg20, L7. change "contributed" to "attributed".

Corrected.

11. Pg24, L3 and L4. "For absorbing aerosols, the slope roughly decreases with increasing particle size from coarse, mixed to fine particles..." however, is the particle size decreased instead of increased from coarse, mixed to fine particles? the slope does not decrease (89, 111, 104). This sentence needs to be rewritten for correction.

Many thanks for helping figure this error here. We have changed the sentence as "For absorbing aerosols, the slope roughly increases with decreasing particle size from coarse to mixed particles, with values of about 89, 111 $\mu\text{g}/\text{m}^3$ in spring, 85, 122 $\mu\text{g}/\text{m}^3$ in summer, 71, 163 $\mu\text{g}/\text{m}^3$ in fall, and 44, 143 $\mu\text{g}/\text{m}^3$ in winter, respectively."