

Responses to Co-Editor

Thank you very much for handling our manuscript. According to your valuable suggestions, we have carefully revised this manuscript. The revisions in the revised manuscript were presented in red font. Enclosed please find the point-by-point responses to your comments.

Comment 1: Lines 33-34: please change "were partitioned onto particle phase" to "partitioned into the particle phase,"

Response to comment 1: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 33-34, Chang “were partitioned onto particle phase” **To** “partitioned into the particle phase,”

Comment 2: Line 69: Change "the" to "a"

Response to comment 2: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 69, Chang “the” **To** “a”

Comment 3: Line 70: Delete "close"

Response to comment 3: It has been deleted in the revised manuscript.

Revision in the manuscript:

Line 70, Delete “close”

Comment 4: Line 71: Delete "the" before "severely"

Response to comment 4: It has been deleted in the revised manuscript.

Revision in the manuscript:

Line 71, Delete “the”

Comment 5: Line 71: Change "climate in" to "atmospheres of"

Response to comment 5: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 71, Chang “climate in” To “atmospheres of”

Comment 6: Line 80: Delete the word "the" before "severely"

Response to comment 6: It has been deleted in the revised manuscript.

Revision in the manuscript:

Line 80, Delete “the”

Comment 7: Line 80: Change "atmosphere in" to "atmospheres of"

Response to comment 7: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 80, Chang “atmosphere in” To “atmospheres of”

Comment 8: Line 84: Change "co-existed" to "co-existing"

Response to comment 8: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 84, Chang “co-existed” **To** “co-existing”

Comment 9: Line 106: Change "online monitored" to "measured in real-time"

Response to comment 9: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 106, Chang “online monitored” **To** “measured in real-time”

Comment 10: Line 129 and elsewhere please make sure "m/z" is italicized.

Response to comment 10: It has been corrected in the revised manuscript.

Revisions in the manuscript:

Lines 129, 131, 301, 329, 399, 400, and 483, Chang “m/z” **To** “*m/z*”

Comment 11: Line 502: delete "were"

Response to comment 11: It has been deleted in the revised manuscript.

Revision in the manuscript:

Line 502, Delete “were”

Comment 12: Line 503: Change "onto particle phase" to "into the particle phase"

Response to comment 12: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 503, Chang “onto particle phase” **To** “into the particle phase”

Comment 13: Line 507-508: Change "that it should pay more attention to the SOA formation from biomass burning" to "that more attention is necessary on the SOA formation from biomass burning"

Response to comment 13: It has been changed in the revised manuscript.

Revision in the manuscript:

Lines 507-508, Chang "that it should pay more attention to the SOA formation from biomass burning" **To** "that more attention is necessary on the SOA formation from biomass burning"

Comment 14: Line 512: Change "should be tightly combined" to "are tightly coupled,"

Response to comment 14: It has been changed in the revised manuscript.

Revision in the manuscript:

Line 512, Chang "should be tightly combined" **To** "are tightly coupled,"