

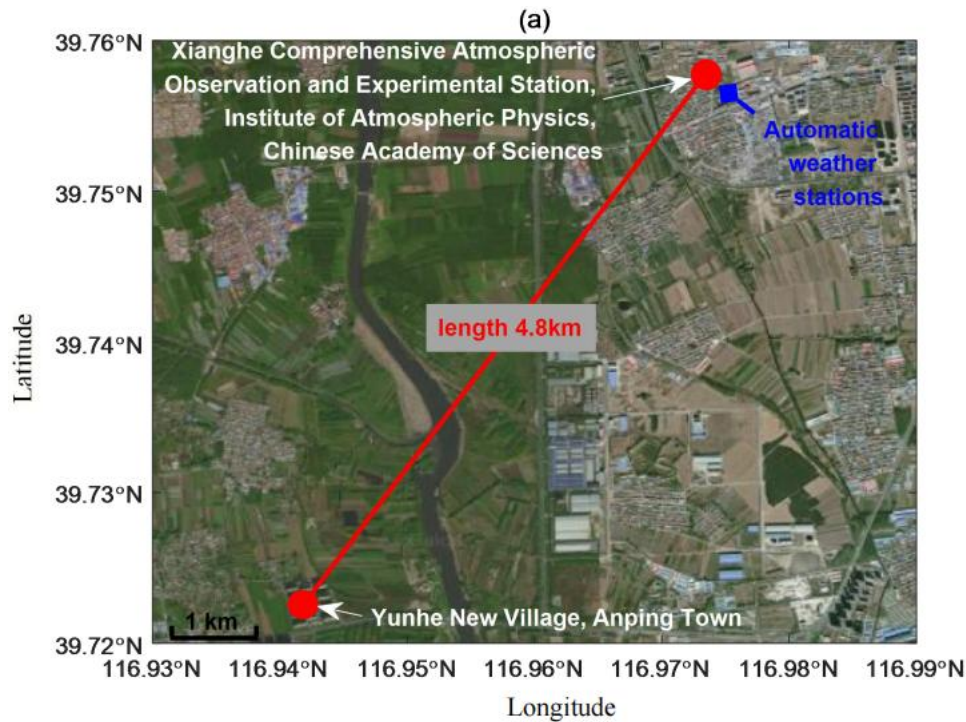
Dear reviewer:

Thank you for your precious comments and advice. Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our research. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the paper. The main corrections in the paper and the responds to your comments are as follows:

Specific comments:

1. For Figure 1, please add the name for the horizontal axis and vertical axis.

Response: Thank you for the comment. We have added the name for the horizontal axis and vertical axes to Figure 1 (a) (Page 4 line 93), and the revised Figure 1 (a) is as follows:



2. For Figure 2, what time is used, local Beijing time, or the Coordinated Universal Time (UTC)?

Response: Thank you for the comment. We are using Beijing time, which is China Standard Time (CST). We have explained in the paper. (Page 7 line 131).

3. Line 86, rewrite as "The data recorded by the local weather station include humidity,".

Response: We agree with the comment. We have revised this sentence in the paper. (Page 4 line 98).

4. Lines 64–65 For each season, as shown in Figure 4, I would suggest the authors to use the same scale for the months within that season, which will be convenient for the readers to compare.?

Response: Thank you for the comment. We have also tried to keep the range of the y-axis consistent, but this will make it difficult to see the changes in the smaller water vapor density. For example, the water vapor density graph for December 2020. Figure 1 keeps the original y-axis, and Figure 2 is the adjusted y-axis (consistent with the y-axis of the water vapor density graph in July and August 2021). We can see that the change in water vapor density in Figure 1 is more obvious than that in Figure 2, so we did not change the y-axis.

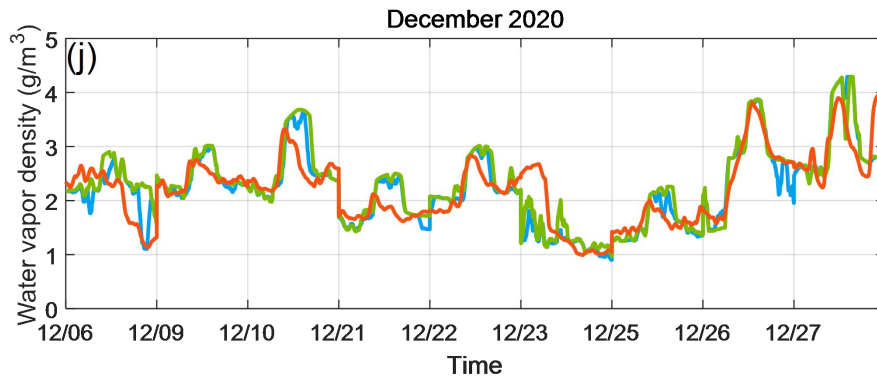


Figure 1: the original y-axis.

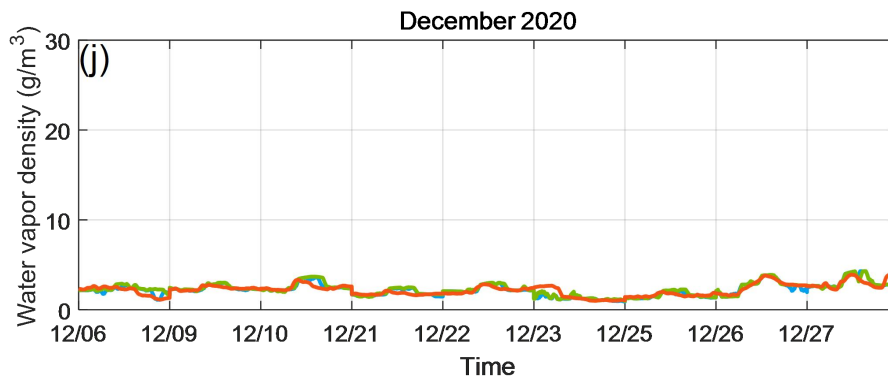


Figure 2: the adjusted y-axis.