

Dear Editor and Reviewers:

Thank you for careful comments. These comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have made corrections which we hope meet with approval. The Reviewer 1's comments are in blue and our responses are in black. The main corrections in the paper and the point-to-point responses are as following:

1. Regarding my review comment about "NO-ACIsub vs. ACIsub", the response and revision are acceptable, although they are different from what I asked the authors to do. However, the current title of the manuscript is slightly inconsistent with the content as a result of the revision. I suggest changing the title to highlight both the model development and the investigation.

Response: Accept. **We have changed the title (Subgrid-scale aerosol-cloud interaction in an atmospheric chemistry model CMA_Meso5.1/CUACE and its impacts on mesoscale meteorology prediction) to highlight both the model development and the investigation.**

2. Line 56: A period is missing..

Response: Revised. **A period has been added in this sentence.**

3. Lines 64-74: These sentences for the previous studies should be written in the past tense, rather than the present tense.

Response: Revised. **We have rewritten these sentences in the past tense.**