Response to the Comments of the Reviewers

---For the manuscript “egusphere-2024-1204”

Dear Editor and Reviewers,

We acknowledge the constructive comments and encouragement of the reviewers and are grateful for the efficient service of the editor. Here, we submit our revised manuscript titled “Exploring the Crucial Role of Atmospheric Carbonyl Compounds in Regional Ozone heavy Pollution: Insights from Intensive Field Observations and Observation-based modelling in the Chengdu Plain Urban Agglomeration, China” (Manuscript ID: egusphere-2024-1204), along with a thorough, point-by-point response to each comment raised by the reviewers. The revisions to the manuscript are highlighted in blue text in the attached "Response to the Comments of the Reviewers." Additionally, we have provided a clean version of the revised manuscript as required. We greatly appreciate the reviewers’ insightful comments and valuable suggestions, which have significantly improved the quality of our manuscript.

Sincerely yours,

Authors of the manuscript egusphere-2024-1204

Corresponding author: Hong Li (lihong@craes.org.cn)

First author: Jiemeng Bao (2301112284@stu.pku.edu.cn)

Dec. 19, 2024

Response to the Reviewer #1

Comment 1: Make title compatible with guidelines to be concise and to highlight the findings rather than the topic. For example: Atmospheric Carbonyl Compounds are crucial in Regional Ozone heavy Pollution: Insights from the Chengdu Plain Urban Agglomeration, China.

Response:

We sincerely thank the editor for the valuable feedback. Following the recommendation, we have revised the title to: "Atmospheric Carbonyl Compounds Are Crucial in Regional Ozone Heavy Pollution: Insights from the Chengdu Plain Urban Agglomeration, China". This revised title aligns with the guidelines by being concise and highlighting the key findings of our study. Thank you for your guidance.

Lines 1-3：

“Atmospheric Carbonyl Compounds are crucial in Regional Ozone heavy Pollution: Insights from the Chengdu Plain Urban Agglomeration, China”