

Interactive comment on “Development and application of observable response indicators for design of an effective ozone and fine particle pollution control strategy in China” by J. Xing et al.

Anonymous Referee #1

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Identifying strategies that reduce the concentrations of secondary or mixed air pollutants most effectively is always a challenging work. This study partially answers this question by providing a new technique with combination of observation and RSM modeling indicators. Overall the paper is well written, I have minor comments for the authors to improve the paper and meet ACP requirements.

Detailed comments:

1. The indicators are based on the chemical mechanisms and emissions in current

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models. Thus, the indicators may change for a different location or with improved mechanisms. I suggest authors add the limitations of this study in inclusion parts.

2. Only the title uses “particle” to represent particulate matter.

3. Clarifying some places and correcting grammar errors would help readers understand the paper better. A few examples are given below:

- a. Lines 57-58, this sentence is not correct, for example, O₃ and NO_x are correlated, but it is not due to the similarities in their atmospheric processes.

- b. Line 58, not proper to call PM_{2.5} as secondary pollutants

- c. Line 89: the estimating to “the estimation of” . . .

- d. Lines 106-108, this sentence does not belong here.

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