

Title: Characterization and source apportionment of coarse particulate matter in Hong Kong: Insights into the constituents of unidentified mass and source origins in a coastal city in southern China

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### *Point-by-Point Response to Editor's Comments*

Comments to the author:

The authors have reasonably well addressed the comments of the two anonymous referees and they have modified their manuscript accordingly. However, alterations and corrections are needed for both the Main text and Supplement before the manuscript can be published in ACP:

We thank the editor for the comments. Our response text is marked in blue in this document. The revised text in the main manuscript is also marked in blue.

Main text:

Line 14: Replace "of its" by "for its". **Response:** Corrected.

Line 35: Replace "play important" by "plays important". **Response:** Corrected.

Line 39: Replace "were inconclusive" by "was inconclusive". **Response:** Corrected.

Line 47: Replace "are mostly" by "is mostly". **Response:** Corrected.

Line 55: Replace "originated from" by "originating from". **Response:** Corrected.

Line 85: Replace "in Los" by "in the Los". **Response:** Corrected.

Line 99: Replace "of the Hong" by "of Hong". **Response:** Corrected.

Line 102: Replace "a season-dependent air pollution characteristics that is" by "season-dependent air pollution characteristics that are". **Response:** Corrected.

Line 109: Replace "were equipped" by "was equipped". **Response:** Corrected.

Lines 136-137: Replace "with positive matrix factorization (PMF)" by "with PMF"; the acronym PMF should not be defined again as this was already done in line 88. **Response:** Corrected.

Line 212: Replace "are likely" by "and are likely".

**Response:** The statement was revised as below:

“The meteorological data imply that the seasonal variation in  $PM_{\text{coarse}}$  levels is likely caused by changes in source intensity and/or air mass origin.”

Line 265: Replace "mean for" by "means for". **Response:** Corrected.

Line 273: Replace "cluster 2" by "clusters 2". **Response:** Corrected.

Line 294: Replace "is also" by "are also". **Response:** Corrected.

Line 302: Replace "while deplete" by "while the are depleted". **Response:** Corrected to "while they are depleted".

Line 350: Replace "in thermodynamic" by "in the thermodynamic". **Response:** Corrected.

Line 370: Replace "from continental" by "from the continental". **Response:** Corrected.

Line 383: Replace "is associated" by "are associated". **Response:** Corrected.

Line 400: Replace "gird cell" by "grid cell". **Response:** Corrected.

Line 420: Replace "in coastal" by "in a coastal". **Response:** Corrected.

Line 428: Replace "for sampling" by "for a sampling". **Response:** Corrected.

Line 430: Replace ", therefore" by "; therefore". **Response:** Corrected.

Line 438: Replace "the southern" by "that southern". **Response:** Corrected.

Line 440: Replace "lead to" by "leads to". **Response:** Corrected.

Line 452: Replace "in human" by "in the human". **Response:** Corrected.

Line 463: Replace "exhibit a" by "exhibits a". **Response:** Corrected.

Line 482: Replace "to regional" by "for regional". **Response:** Corrected.

Supplement:

Page S1, before line 1: A header with "Supplement", the manuscript title, authors and affiliations is needed.

**Response:** We noted the following statements from the Supplement section of the manuscript submission guideline (<https://www.atmospheric-chemistry-and-physics.net/submission.html#manuscriptcomposition>):

“Supplements will receive a title page added during the publication process including title ("Supplement of"), authors, and the correspondence email. Therefore, please avoid providing this information in the supplement.”

This is why we did not include the title, authors, etc. Do let us know if the policy has changed and we are happy to make revision.

Page S5, line 2: Replace "factor was" by "factors was". **Response:** Corrected.

Page S5, line 15: Replace "Five-factor" by "The five-factor". **Response:** Corrected.

Page S7, line 1 of Figure caption: Replace "Cluster 1" by "Clusters 1". **Response:** Corrected.