

Responses to interactive comments

Journal: Atmospheric Chemistry and Physics

Manuscript ID: acp-2022-802

Title: High Enrichment of Heavy Metals in Fine Particulate Matter through Dust Aerosol Generation

We appreciate Referee #1's comments and suggestions to help improve the manuscript.

Our response is in blue and the modifications in the manuscript are in red.

Anonymous during peer-review:

Yes No

Anonymous in acknowledgements of published article: Yes No

Checklist for reviewers

1) Scientific significance

Does the manuscript represent a substantial contribution to scientific progress within the scope of this journal (substantial new concepts, ideas, methods, or data)?

Outstanding **Excellent** Good Fair Low

2) Scientific quality

Are the scientific approach and applied methods valid? Are the results discussed in an appropriate and balanced way (consideration of related work, including appropriate references)?

Outstanding **Excellent** Good Fair Low

3) Presentation quality

Are the scientific results and conclusions presented in a clear, concise, and well

Outstanding Excellent Good Fair Low

structured way (number and quality of figures/tables, appropriate use of English language)?

For final publication, the manuscript should be accepted as is

accepted subject to **technical corrections**

accepted subject to **minor revisions**

reconsidered after **major revisions**

rejected

Were a revised manuscript to be sent for another round of reviews:

I would be willing to review the revised manuscript.

I would not be willing to review the revised manuscript.

Suggestions for revision or reasons for rejection

(visible to the public if the article is accepted and published)

Author addressed all my comments, and I suggest to accept the revised version.

Response:

We thank Referee 1 again for the comments and suggestions and found that Referee #1 does not have any more comments that need to be revised.

Responses to interactive comments

Journal: Atmospheric Chemistry and Physics

Manuscript ID: acp-2022-802

Title: High Enrichment of Heavy Metals in Fine Particulate Matter through Dust Aerosol Generation

We appreciate Referee #2's comments and suggestions to help improve the manuscript.

Our response is in blue and the modifications in the manuscript are in red.

Anonymous during peer-review:

Yes No

Anonymous in acknowledgements of published article: Yes No

Checklist for reviewers

1) Scientific significance

Does the manuscript represent a substantial contribution to scientific progress within the scope of this journal (substantial new concepts, ideas, methods, or data)?

Outstanding Excellent **Good** Fair Low

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I would be willing to review the revised manuscript.

I would not be willing to review the revised manuscript.

Suggestions for revision or reasons for rejection

(visible to the public if the article is accepted and published)

Response:

Again, we thank the Referee 2 for all the valuable questions and suggestions and found that Referee #2 does not have any more comments that need to be revised.

Furthermore, we have reviewed the entire manuscript and made some minor corrections.

Changes in manuscript:

Line 159: "...a 10-stage..."

Line 178: "...an..."

Line 197: "...a floating dust storm..."

Line 200 and Line 432: "...single-particle..."

Line 239: "...the skin..."

Line 337: “These results...”

Line 394: “...a value...”

Line 488: “...compared to...”

Line 493: “...which seems to lack enrichment...”