

Interactive comment on “Worldwide atmospheric mercury measurements: a review and synthesis of spatial and temporal trends” by F. Sprovieri et al.

F. Sprovieri et al.

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The article comprises a review of atmospheric mercury measurements worldwide and when the comments made by Prof. Feng have been met I believe that it covers almost the entire globe. There is one new article that I feel is missing: Sommar et al. Circumpolar measurements of speciated mercury, ozone and carbon monoxide in the boundary layer of the Arctic Ocean. Atmos. Chem. Phys. Disc. 2009, 9 20913-20948. This one describes the MBL concentration of mercury in the Arctic. Also make sure that the data mentioned in the manuscript is in the tables. I would like a more extensive discussion regarding the spatial and temporal trends. Right now the manuscript is more of a summary of results. The manuscript includes parts which are written identical, word by word, to previously published work, this needs to be changed. I also agree with

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previous reviewer that the English needs to be improved.

Response to Referee # 2: Referee # 2: The article comprises a review of atmospheric mercury measurements worldwide and when the comments made by Prof. Feng have been met I believe that it covers almost the entire globe.

Response: The section 2.7 has been revised accordingly to reviewer's suggestions considering the publications suggested by Dr. Feng. Please, see the Section 2.7 of the revised manuscript.

Referee # 2: There is one new article that I feel is missing: Sommar et al. Circumpolar measurements of speciated mercury, ozone and carbon monoxide in the boundary layer of the Arctic Ocean. Atmos. Chem. Phys. Disc. 2009, 9 20913-20948. This one describes the MBL concentration of mercury in the Arctic. Also make sure that the data mentioned in the manuscript is in the tables.

Response: The new article Sommar et al., 2009 has been cited and the results have been included in the revised manuscript. Please see the two sections 2.3.4 (Arctic Oceans) and 2.10.1 (AMDEs in the Arctic).

Referee # 2: I would like a more extensive discussion regarding the spatial and temporal trends. Right now the manuscript is more of a summary of results.

Response: It has been done in some parts of the paper. In addition, as also other referees asked, we reorganized the section related to the conclusion and research needs. Please, see the revised section 3 (“conclusion and research needs”).

Referee # 2: The manuscript includes parts which are written identical, word by word, to previously published work, this needs to be changed. I also agree with previous reviewer that the English needs to be improved.

Response: The paper has been revised and text modified to avoid duplication, in addition, the English has been improved and cross checked.

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Please also note the supplement to this comment:
<http://www.atmos-chem-phys-discuss.net/10/C2619/2010/acpd-10-C2619-2010-supplement.pdf>

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 1261, 2010.