

***Interactive comment on* “Comparison of mercury concentrations measured at several sites in the Southern Hemisphere” by F. Slemr et al.**

F. Slemr et al.

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We thank for the comments of the reviewer.

1. The reviewer points correctly out that all sites in our paper can be considered as remote and this is now explicitly mentioned in the abstract. As such the reported mercury concentrations and their trends cannot be representative for sites influenced by local and regional pollution. Consequently, we deleted the claim that “trends observed at one or a few sites in the Southern Hemisphere are likely to be representative for the whole hemisphere” in the revised abstract and in the section on the trend at Cape Point.

2. As mentioned in our response to the comments of reviewer #1 we think that the
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interpretation of the differences would be premature without further QA/QC work.

3. In the meantime 2014 data for Cape Point are available. Mann-Kendall test for 2007 – 2014 trends in annual averages is now significant at 95% level and in annual medians at 90% level. We are aware of the large interannual variations of annual average mercury concentrations at Cape Point and will discuss them in a paper which is being prepared.

4. We refrained from discussing the distribution of atmospheric mercury in northern hemisphere because the enormous volume of the published data would substantially lengthen the paper and dilute its message. The interested reader is referred to a comprehensive review by Sprovieri et al. (2010).

References

Sprovieri, F., Pirrone, N., Ebinghaus, R., Kock, H., and Dommergue, A.: A review of worldwide atmospheric mercury measurements, *Atmos Chem. Phys.* 10, 8245-8265, 2010.

[Interactive comment on Atmos. Chem. Phys. Discuss., 14, 30611, 2014.](#)

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