

Interactive comment on “Air–surface exchange of Hg⁰ measured by collocated micrometeorological and enclosure methods – Part 1: Data comparability and method characteristics” by W. Zhu et al.

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Anonymous Referee #3:

Overall comments: In this manuscript, Zhu et al. performed a comprehensive inter-comparison of five contemporary Hg(0) flux quantification techniques. This study is of broad interest to the audience of this journal and to the scientific community studying environmental fate of Hg. This paper should be acceptable for publication following some minor revisions. In addition, this manuscript still requires grammatical

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edits throughout. Response: We thank the reviewer for the positive comments on the scientific importance of this research. All the specific comments have been incorporated in the revised manuscript. Our point-to-point response to the comments is given below (in blue). Corresponding revision was added in the manuscript.

Specific comments: Comment #1: Page 22286, line 8: delete the third ‘ng m-2 h-1’
Response: It has been deleted as suggested.

Comment #2: Page 22295, line 24: change flux to fluxes Response: It has been changed as suggested.

Comment #3: Page 22288, line 17: change an to a Response: It has been changed as suggested.

Comment #4: Page 22289, line 20: change canopies to canopy; change contribute to contributes Response: the text has been reworded accordingly.

Comment #5: Page 22291, line 11: change methods to method Response: It has been revised as suggested

Comment #6: Page 22291, line 15 to 20: rewrite the sentence ‘Other gases (e.g. NH₃, CH₄) thatAGM fluxes ’ Response: The sentence has been revised as “Other gases (e.g. NH₃, CH₄) that have been studied with this triad of MM-techniques, higher variability in REA flux is generically observed (Nemitz et al., 2001;Fowler et al., 1995;Moncrieff et al., 1998). In addition, systematically fluxes differences between a suite of NH₃-REA systems as well as collocated AGM system inter-compared have been reported (Hensen et al., 2009)”.

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 22273, 2014.

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