

Interactive comment on “Emissions halted of the potent greenhouse gas SF₅CF₃” by W. T. Sturges et al.

Anonymous Referee #1

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The paper describes the temporal development of global emission of SF₅CF₃ derived from its long-term measurements from a Southern hemisphere air archive, from Northern hemisphere firn air and from aircraft sampling. It continues the discussion on the atmospheric occurrence and sources of this compound, which was started by the same group around a decade ago.

I am very much in favor of publishing the manuscript in ACP after the corrections/suggestions have been addressed.

Major issues

I am not very much in favor of the following statement in the abstract: It is concluded that this is due to the cessation of global production of perfluorooctyl sulfonate-based

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fluorochemicals. I think there is evidence that this was the global source but this is not 100% certain. So I would suggest that authors should weaken the statement so that if new findings show up they don't have to revise this statement.

Minor issues

Page 870 Line 2: I would avoid the term "super", the paper is worth to be published also without pushing it in this direction

Page 870 Line 11: I would mention the aircraft measurements together with the other measurement platforms in the beginning.

Page 871 : I would suggest that the authors give a short overview on the content of the paper at the end of the introduction, in addition to their preparing the ground for exchanging the proposed source from co-production of SF₆ to production of perfluorooctyl sulfonate-based fluorochemicals.

Page 872: A short description of the standard is needed in the methods section.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 869, 2012.

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