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Atmospheric Chemistry and Physics Discussions

Interactive comment on "4D dispersion of total gaseous mercury derived from a mining source: identification of criteria to assess risks related with high concentrations of atmospheric mercury" *by* José M. Esbrí et al.

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This manuscript offers monitoring alternatives for contaminated areas that seem to offer very significant results in mining areas such as the chosen one. In the context of emission reductions required by the Minamata Convention, these procedures should offer valuable information about the evolution of the gaseous Hg concentration values in areas with real problems of risk for people. Among all the work presented in the manuscript, I am very interested in making transects that can be compared over time, both in daily cycles and at different seasons. The method seems to work well in the

chosen mining environment, but I wonder if it would offer meaningful information in an environment with less spectacular emissions, for example, in a bay entering sediments contaminated with cinnabar and native mercury droplets. For the application of this transect monitoring method, is prior identification of the emission sources essential? What phenomena could I register in this case? Otherwise, the manuscript is very well written, and there are only a few minor errors that may have already spotted in the comments above. To name the ones that seemed most striking to me, the term TGM is not well defined on line 47, on line 60 I don't understand the term "forb", and the weather station is unclear where it is in Figure 1.

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