

Interactive comment on “Technical Note: On the memory effects in the analysis of $\delta^2\text{H}$ and $\delta^{18}\text{O}$ water samples measured by different laser spectrometers” by D. Penna et al.

D. Penna et al.

daniele.penna@unipd.it

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The editor's comments are quoted above the authors' response.

“As mentioned by all reviewers, the paper is generally well written, but all of the instruments used in this paper are currently obsolete. Therefore, I think it is absolutely necessary to include current generation laser spectrometers as well as the tested ones in order to provide the necessarily up-to-date information of a technical note. The other more general comments by the reviewers (testing of several laser spectrometers of the same type, evaluation of memory effects as a function of analysis time, consider all

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of the components in the sampling system, etc) should be considered seriously in the revised version for HESS. I hope the authors are able to provide a compelling response to the comments in time and an improved version for HESS.”

In response to the reviewer's comments and to the editor's indications the results from the test of two current generation instruments employing the two different technologies available on the market were added to the revised Technical Note. We further addressed all the issues raised by the three referees, modifying and extending the original manuscript significantly. These edits included updating all Figures with data from the new instruments (the Figures were arranged in multiples panels or were split in a, b to better accommodate the plots of all six instruments for both isotopes), removing Table 3, adding a new Table with more detailed results about quantification of memory effects (see supplement), extending considerably Section 3.1 and rewriting almost completely the final part of the paper. Finally, the title was slightly changed and a few co-authors were added in order to acknowledge the additional contributors that made the last generation spectrometers available.

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/9/C4073/2012/hessd-9-C4073-2012-supplement.pdf>

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