

Interactive comment on “Deuterium excess in atmospheric water vapor of a Mediterranean coastal wetland: regional versus local signatures” by H. Delattre et al.

Anonymous Referee #3

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The authors describe the calibration of a laser method to collect and analyze the isotopic composition of near surface water vapour, and then to interpret the measured record over a month to understand the significance of the data. The analytical protocols, data collection and calibration are well described. I believe the authors could have compared and contrasted their results with those provided by Kurita et al. (Atmos. Meas. Tech., 5, 2069-2080, 2012). He used a different brand of machine but provided data from another European city - Vienna.

The second, and major part of the manuscript (Section 4) attempts to provide an interpretation of the measured vapour isotope values. The data indicate several interesting

C1521

features - higher d-excess which they attribute to northern rather than southern air mass; day vs night time variation - which should lead to a much clearer discussion and result that contributes to the objective laid out in the introduction. As is, after reading a lengthy discussion, the reader does not get a clear picture as to what the authors think is the cause of observed variability. I think that the day/night variability perhaps indicates something that is contrary to the simple vapour mixing scenario that they started with. If the authors do not believe that more can be said, the material they have now perhaps could be rewritten more concisely.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 1703, 2015.

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