

Earth Syst. Sci. Data Discuss., referee comment RC2
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Comment on **essd-2021-87**

Anonymous Referee #2

Referee comment on "The global and multi-annual MUSICA IASI {H₂O, δD} pair dataset" by Christopher J. Diekmann et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2021-87-RC2>, 2021

This manuscript presents water vapor and its isotope (delta D) from the IASI satellite. The manuscript is well written, has a significant contribution to the community, and is worthy of prompt publication. I recommend it be accepted for publication, with a few minor revisions.

One of the main suggestions is whether provide a fully gridded product in different resolutions. For example, 0.25 degrees with 12-hour intervals or monthly. It would be great for users (like me). Currently, it is not friendly at all.

Second, can the authors compare IASI products with other satellite products (such as TES or AIRS, if there is an overlap)? I think it is easy for us to understand the difference among the datasets (products).

Minor comments:

L43: ? --> citation

L44: ? --> wrong citation

L393: 1X1 degree?

Table 1: is it possible to add the information about flag values in the table? e.g., what is the meaning of the value of 1?

