Public justification (visible to the public if the article is accepted and published):

Dear Authors,

I am sorry for the somewhat edgy review process, but the presentation of your results needed some reworking, which I realised only in a late stage of the processing. Your actual revision has done that very well. So, thank you for taking into account all the previous editorial comments, which finally makes your manuscript publishable in AMT. Rereading the whole document, there are very few and minor, mostly technical corrections that need to be made before the manuscript will be published, however.

Dear Christof Janssen,

Thank you for your feedback and for guiding us through the revision process. We are pleased to hear that the manuscript is now considered publishable in AMT.

We have carefully addressed the remaining minor corrections as follows:

L. 31-33 Write (0.2 ± 0.9) ‰ etc, We found accuracy -> We found accuracies, they yielded accuracy of -> they yielded accuracies of Since ‰ is to be treated as a real number (see below), where standard algebraic laws should apply, the distributive rule must be respected and parentheses cannot be omitted, here and elsewhere in the manuscript.

The entire manuscript has been reworked with respect to your recommendation to rephrase "accuracy" to "accuracies" when both values (δ 180 and δ 2H) are mentioned (accuracies are now written as e.g. 0.7 ‰ ± 2.3 δ ²H). For isotopic values, see the comment below for L95/L271/L273.

L. 51 I could only find Kübert et al 2020 in the list of references. Please correct Kübert et al 2021

Done.

L. 560 : While the text has been corrected, the electronic link embedded in the pdf has not been updated and does not yet include the missing digit (3). It still directs to an article on cosmetics.

Well, I did not know that was possible. I have now replaced the whole link.

L95, L271, L273. The different definitions you are giving in eps 1 to 3 are conflicting due to the introduction of additional (and historical) factors of 1000 being included in some definitions but omitted in others. For example, if 1000 is included in the

definition of δ -values (eq 1), then eq 2 would need to contain δ /1000 instead of δ . The same contradiction holds for the definition of α + or ln α + in equations 2 and 3. Once, a factor of 1000 is included (eq. 3), once it is not (eq 2). Metrological institutions commonly recommend to treat the percent and permil signs as mere numbers (and not units) with % = 0.01 and ‰ = 0.001. The recommended practice is thus to use all definitions without additional factors of 1000 and use the identity 1 = 1000 ‰ to express δ -values in permil etc. See for example the IUPAC technical report, doi:10.1515/pac-2013-1023. If these recommendations are followed, the reference to Kübert et al., 2020 in line 263 should be deleted. Finally, the reference to Craig, 1961 in line 94 could also be deleted.

Many thanks for your recommendation. It is indeed correct that our equations 1-3 are not consistent regarding the δ -notation in permil. We have now changed all of the equations to be correct for the use in permil instead of mere numbers. While we generally agree with your suggestion to amend this, we believe that the notation in permil is such a common practice in the stable isotope community that it would be potentially confusing for the main target group to not represent equations in delta notation.

L. 357. Add a full stop at the end of the figure caption.

We assume that you are referring to the empty line 357 and added a line break (punctuation sign was already there) at the end of the figure 5 caption to avoid the empty line.

L. 416. You probably intend to say "but to quantify and correct for it".

Done.

L. 439-441. Concluding, our results suggest comparable accuracy to other methods for 24 hours, -> In conclusion, our results show comparable accuracy to other methods for storage times of up to 24 hours,

I also suggest to write "require further investigation" instead of "should be further tested".

Done.

L. 508 - 513. There is a mix of tenses. It is best to write : "We have demonstrated that" and then switch to present tense for the remaining part of the phrase ("available bags meet the expected level, etc.").

Done.

With kind regards Christof Janssen