

We thank D. Team for the constructive comments. Detailed replies are given below. The original comments are reproduced in italics:

*Comment 1 and 2* are about the mismatch in the numbering of the MFCs. This has been corrected.

*Comment 3: The authors mentioned their technique has those advantages such as fast, high precision, and very good for small size samples but they didn't i- Mention how long does the run take ii- Compare between other references to show their technique is fast and has high precision.*

Answer: The statement "fast" is made in comparison to the traditional offline methods. The typical run time of our system is ~21 minutes, which is comparable to other published methods. The sample loop size of 40 ml for both  $\delta^{13}\text{C}$  and  $\delta\text{D}$  is similar to the smallest values published for  $\delta^{13}\text{C}$ , and smaller than what is published to date for  $\delta\text{D}$ . We do not think that it is necessary to compare the parameters directly to other publications.

*Comment 4: "The authors mentioned the HSD should keep at LN bath for at least 20 min but they didn't mention exactly How long HSD should be in LN and did they try longer or shorter time and if yes does the reproducibility become much better for time < 20 min."*

Answer: We started at longer times and subsequently reduce the bath time to safely show no significant loss in peak area and reproducibility. For avoiding misunderstandings the expression „it (the preconcentration unit) traps“ has been extended to „it traps and keeps“. In the reference process (called EC120, using second trap type) the transfer from the sample loop to the HSD unit is done with 130s, where it is then kept for additional 6 minutes.

*Issue 5+6: 5- In Page 2439, the authors mentioned the HSD is heated up to +70oC, but they didn't mention for how long to transfer. 6- In Page 2441, the authors mentioned the cryofocussing should be heated to 50oC, but they didn't mention for how long.*

Answer: Further process parameters are mentioned on page 2439 and 2441.

*General comment: „...making another section 'Appendix' to preparation steps, cleaning procedure, and all parts of section 2 (excluding 2.1, 2.2, 2.3, 2.4) and also  $^{13}\text{C},\text{D}$  analysis put under results. So readers will not confuse about the main procedures for preconcentration and cryofocussing“*

Answer: We prefer to keep these parts in the main session of the paper, because this follows the flow of the sample through the system. Restructuring it in the suggested way would put a very strong emphasis on the main procedures for preconcentration and cryofocussing. Although, the traps are one major achievement, they are only „one piece of the puzzle“. In principle traps can be realised differently. The whole process in general is described at the beginning of section 2, and is not new. Readers, who are interested in specific issues, can easily find and concentrate on individual chapters.