

Review of the revised manuscript „First comprehensive stable isotope dataset of diverse water units in a permafrost-dominated catchment on the Qinghai–Tibet Plateau” written by Y. Yang et al.

Actually the authors answered all of my questions and took my suggestions into consideration, and rewrote the manuscript where it was recommended or criticized. Only few bad wording (phrases) remained or got into the text. See below. After the correction of these faults, I recommend the publication of the manuscript and the related dataset.

#### Detailed comments

Line 99: “isotope records of thermokarst lakes/ponds and ground ice on the QTP, which are extremely scarce” – In this form the “scarce” refers to the “lakes/ponds and ground ice”. Please, delete “, which are” and then it will refer to the isotope records.

In the “Legend” of Figure 1b “tributary” should be replaced by “tributaries”.

In the “Legend” of Figure 1a and 1c “Qinghai-Xizang” remained. It should be replaced by “Qinghai-Tibet”.

Line 148: “as much as snow samples” – Bad grammar. Please, correct this form in other places as well.

Lines 183-184: “the plastic bags were exhausted”. – Do you mean the air was pressed out from the bag? “exhausted” is not a good word here.

Melted “at room temperature”. The prefix “at” is missing.

Line 200: “Partial of sampled lakes disappeared”. – I recommend “Some of the sampled lakes disappeared”.

Line 215: “Typical feature of one spring gushing outs from sand sediment”. – Please, use “out” instead of “outs”.

Line 257: Abbreviations in Equation 1 are not explained.

Lines 261-262: “the water sample from one single precipitation event was firstly collected”. – Please, rephrase this sentence. I recommend the following: “the water sample from every single precipitation event was collected separately.”

Line 270: “beneath water” – beneath water surface.

Line 275-276: “calculating the 1-sigma standard deviation of groups of 12 injections and then calculating the average of these standard deviations” – What kind of water was used for this? Measuring distilled water always results better standard deviation than that of natural water sample. The same natural water should be measured several times and then the standard deviation could be calculated. This standard deviation is a lower limit for the uncertainty of the delta values.

Line 350: “et al” – etc.

Line 360: “majorities of the  $\delta^{18}\text{O}$  points of ground ice are isotopically lighter than the precipitation” – Again bad wording. Please, rephrase. A point cannot be lighter.

Line 371: "isotopically light values"- A bad wording again. A value cannot be light.

Line 415: "partial of the isotopic dots" – some of the points

Line 419: "the partial of isotope points" – some of the points.

Line 423: "negative isotopes" – it does not exist. A delta value can be negative in this case.

Lines 450-451: "high values in summer and low values in winter" – high delta values in summer and low delta values in winter

Lines 455-456: "The isotopically lighter values" – A value cannot be isotopically lighter. The water can be isotopically lighter. The value is lower.