

Author Response to the Referee #2

Thank you very much for your significant and useful comments on the paper “Stratospheric $\delta^{13}\text{CO}_2$ observed over Japan and its governing processes” by Sugawara et al. We have revised the manuscript, considering your comments and suggestions. Details of our revision are as follows. The line numbers denote those of the revised manuscript.

Lines 547-8: I would suggest clarifying this sentence to something like: ‘..delta13Cp age has a relatively large uncertainty, making it unsuitable for use as an additional constraint for the age estimation.’

Lines 522-523: We have replaced sentence “*the $\delta^3\text{C}_p$ age is subject to larger uncertainties, making unsuitable for use as an additional constraint for age estimation*” with “*the $\delta^3\text{C}_p$ age has a relatively large uncertainty, making it unsuitable for use as an additional constraint for the age estimation*”.