**Requests for adjustment in proofreading**

In the last response letter, we used a dimensionless term, α, to discuss the biological and chemical consumption term in Eq. 1. We use this term to describe the consumption of isoprene which is quantified by our BIO module. Due to the hourly calculation of isoprene production and emission, the consumption is naturally considered using an hourly rate. Here we use a dimensionless value to determine consumption per hour.

However, the unit of consumption rate of h-1 seems important for the understanding of the consumption in the BIO module. According to the previous referee#1’s further concern after the revision, here Eq. (1) is adjusted to emphasize the unit of α. Related statements are also need to adjust in Page 3, Line 44 in the proofreading manuscript as:

*“The BIO model can be expressed by the following equations:*

*(1)*

*where (g·grid-1·h-1) represents the isoprene emission flux from the air-sea interface into the MBL, (g·m-2·h-1) is the isoprene production rate generated by phytoplankton, is the time period for the isoprene production, with unit of an hour. (m2·grid-1) is the grid cell area and is chlorophyll-based rate constant (h-1) to determine the biological and chemical consumption of isoprene. Here the rate constant accounts for the hourly isoprene loss from the production process.”*

In revised Eq. (1), we firstly calculated the hourly production of isoprene by“”, which is in the unit of g·m-2. Then the consumption rate is multiplied to get the consumption of isoprene per hour as “”, with the unit of g·m-2·h-1. Finally, the production of isoprene is determined by “”. The values of production keep the same as the former results.

Accordingly, Eq (13). is revised as:

*“ (13)”*

Here the adjustment for Eq. (13) also includes a typo correction: The term “” on the right side of Eq. (13) need to multiply by a grid cell area term, “”, which is also in the comments of previous referee#1.

In addition, a number is needed to be corrected in Page 10, Line 7 of the proofreading manuscript. The number *“0.373”* in the sentence: *“… with an upper limit of 0.373 when the chlorophyll concentration was larger than 5.77 mg m-3.”* ought to be *“0.026”* here, according to the Eq. (2) in the manuscript.