

Authors' response: Production rate calibration for cosmogenic ^{10}Be in pyroxene by applying a rapid fusion method to ^{10}Be -saturated samples from the Transantarctic Mountains, Antarctica.

We listed several proposed changes to the paper in our responses to RC 1 and RC 2. We have made these changes in the revised text and here we identify their locations. Note that the line numbers for the main text refer to the revised version. In addition, we have also corrected several typographical errors that we discovered in the main text as well as included the reference for previously unpublished data (line 85 and Table 1).

RC 1:

1. Add a discussion on the compositional dependence of pyroxene on production rate.
 - In section 3.2, lines 568 – 581, we added the results from major elemental composition analysis of the pyroxene sample in Table 4 and included a discussion on the compositional dependence on the production rate as suggested by RC1.
 - In summary, the range of pyroxene composition observed in the Ferrar Dolerite and previous calibration studies falls within the predicted Ferrar pyroxene composition < 6.5 %.
2. Clarification of the analytical methodology and discussions where needed
 - We have clarified some of the methodological text in sections 2.3 and 2.3 as noted in the review.
3. Include supplementary files that contain formatted input data that can easily be pasted into the online production rate calibration.
 - We have included this in the supplementary.
4. De-emphasize the statement in line 236 and the caption in Figure 3.
 - We have removed this statement from the text (line 334) and caption in Figure 3.
5. Errors and technical corrections as noted in the review.
 - We have corrected all errors throughout the main text as noted by the reviewer.
6. Update figures
 - Figure 1 has been updated to clearly distinguish between the 'measured' and 'corrected' data points for the outlier
 - Figure 3b has been updated to clearly distinguish data points from this study (circles) from that of others (triangles).

RC 2:

1. Minor specific and technical correction
 - These have been corrected throughout the main text.
2. The following tables have been updated
 - Significant figures have been updated in Tables 1, 2, 3 and 5
 - Table 3: Errors have been updated to include internal uncertainty.