

Response of Review of Revision 1 of acp-2021-479 "The Effects of the COVID-19 Lockdowns on the Composition of the Troposphere as Seen by IAGOS at Frankfurt"

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The authors would like to thank both reviewers for their thorough and constructive comments on this article. Here is our point-by-point response to the corrections on the review of revision1.

Specific/Technical and Line-by-Line Comments:

Line 26: Formatting error on the Duncan et al. (2016) reference.

This was an error in the latex citation which we have corrected.

Figure 1 Legend: Change "Mars" to "Mar"

This has been done

Line 284: Text error remains where there is a strikethrough of "for", replaced by "with"

Another latex issue which we have corrected.

Line 288: Here and Figure 10 caption, you're showing 2001-2020 not just 2016-2020, correct?

Yes, that is correct. We are showing 2001-2020 and have updated the caption accordingly.

Line 307: For each year between 2016 and 2020?

Yes, we have corrected this.

Line 326: "This makes"

We have added the missing 's'.

Line 361: Are these 3 and 2 ppbv values the mean biomass burning contributions to the anomaly? I'm not sure how to interpret the "3 ppbv or 20%" values indicated here. Do you mean 2%?

Yes, these are the contributions to the anomaly. We have re-written line 361 to make this clearer. The '2%' referred to by the reviewer, is 2ppbv as stated in the text. We have quoted an absolute amount for 2020 because the uncertainties in the anthropogenic emissions in 2020 mean that we cannot calculate a reliable relative amount.

Figure 14 Caption: I think this has the same issue as noted for Figure 10, which also shows 2001-2020, not 2016-2020. Please check.

Yes, the figure caption has been updated.

Line 378: To be precise, neither day nor night May SL ozone anomalies are statistically significantly different from the interannual variability in Figure 4. Suggest removing the word "significant", or moving it to the sentence above, as you've shown in Figure 2 that the 32% increase for all of May is significantly different from interannual variability.

As the reviewer suggested, we have moved the word "significant" to the sentence above (now line 381) and reworded slightly the sentence.

We also detected a mis-numbering of the sections which we have corrected in this revised version.