

Technical Corrections

We are very grateful to the editor for the timely feedback, and the reviewers for the further suggestions. Our responses can be found below, and the revisions in the manuscript are highlighted by red color. Meanwhile, all figures in vector format are packaged and uploaded as a separate document. Please kindly use these figures for production.

Please check figure numbers throughout the text. For example, “Figure 3a” in line 268 should be “Figure 5a”?

Reply: This mistake is now corrected and please see Line 270 and 273. Further, we have double checked all the citation of figures.

Figures 2 and 3: I’m a bit puzzled by “tropospheric SO₂” mentioned in figure captions – I assume those should be total column amounts?

Reply: Yes, it is “SO₂ total columns” rather than “tropospheric SO₂”. Such mistakes are corrected in the revised version, and please refer to Line 607 and 613.

Figure 8: The Y-axis for the inserts needs to be marked – since different areas have different trends (as shown in Figure 5), I assume the range (in DU) for each insert is also different?

Reply: Yes, the Y-axis range is different for each subplot. Following your suggestion, the Y-axis tickmarks are added. Please see the revised Figure 8.

Also some further polishing would be helpful – for example in line 229, change “taken up by winter” to “from winter”.

Reply: The phrase “taken up by winter” is replaced with “from winter”. Please see Line 234 and Line 425.

For the reply to my second point in the specific comment, although you elaborate that “the low level SO₂ columns are subject to large uncertainties and the background correction is an important source of error”, you do not make any changes in Line 151-155 of the previous manuscript. One clarification needs to be added there.

Reply: Such explanation is added in the revised version, and please see Lines 222-226.