We sincerely thank the editor for their suggestions and comments that helped to improve our manuscript. Please find below the answers to your concerns. Your comments are in black, our responses in red and the text added to the manuscript is highlighted in cyan.

Abstract: presenting bias, slope, and correlation coefficients for all the correlations is a bit verbose and makes it hard to read. I recommend you choose one (maybe bias).

We have deleted the sentences related to slope values and correlation coefficients. See new abstract (revised manuscript)

Sect. 2.2: I do not see any mention of the angular retrieval issue that you discovered and remedied. Perhaps you discuss it later but it would be most appropriate here. I would suggest you mention this at least briefly here and then add a supplement that contains the text and figures of your August 18 letter.

we have added the following sentence (lines 109-110: revised manuscript)

Note that for the two fitting windows in the UV range, we also fit empirical spectral structures to correct for observed artifacts at low elevation angle (see Supplement material).

Sect. 2.4 title: please change to "model output." "Data" should be reserved for actual measurements and observations.

GEOS-Chem model output

Data Availability (Line 408): It is strongly recommended that you place the MAX-DOAS in an online repository and provide a DOI. Please see the Copernicus data policy here: https://publications.copernicus.org/services/data_policy.html. Aside from adhering to the premise of FAIR data, this will also increase collaboration opportunities.

Thanks, data can be supplied on request

Fig. 4 caption: recommend adding "TROPOMI" somewhere.
We've added "TROPOMI" to the caption (Fig 4)

Figure 4. Distribution of oversampled NO2 (panel a) and H2CO (panel b) TROPOMI tropospheric columns in the station area (4°-5° S, 14.8°-15.8° E), from January 2020 to June 2021. The blue and brown circles represent the 15 km and 20 km radius circles around the station, respectively. The vertical black dashed line represents the pointing direction of the MAX-DOAS instrument

Figures 9 - 12: the right panels look rather cluttered with all the fit information in there. Suggest moving these to a table.

Thank you, all information has been moved to tables (3 and 4). We have only kept the bias parameters and correlation coefficients in each figure. (see new figures and tables in the revised version)

Table 3. Statistics summary for the MAX-DOAS and TROPOMI NO_2 comparisons.

Parameters (daily average/monthly average)	Case 1	Case 2	Case 3
Number of coincidences	198 / 19	198 / 19	90 / 19
Slope (s)	0.18 / 0.67	0.21 / 0.64	0.42 / 0.77
correlation coefficient (R)	0.32 / 0.71	0.30 / 0.68	0.43 / 0.48
intercept ($\times 10^{15}$ molecules cm^{-2})	1.61 / -0.21	2.76 / 1.15	3.87 / 2.74
bias (%)	-38 / -39	-2 / -12	41 / 44
bias ($\times 10^{15}$ molecules cm^{-2})	-1.26 / -1.69	-0.09 / -0.39	1.54 / 1.66

Case 1 : Direct comparison, all pixels
Case 2 : Recalculated TROPOMI, all pixels
Case 3 : Recalculated TROPOMI, azimuth-based selection

Table 4. Statistics summary for the MAX-DOAS and TROPOMI H_2CO comparisons.

Parameters (daily average/monthly average)	Case 1	Case 2	Case 3
Number of coincidences	208 / 19	208 / 19	102 / 19
Slope (s)	0.26 / 0.68	0.30 / 1.00	0.37 / 0.90
correlation coefficient (R)	0.43 / 0.79	0.20 / 0.73	0.25 / 0.55
intercept ($\times 10^{15}$ molecules cm^{-2})	-5.71 / -1.06	12.89 / 1.50	12.61 / 3.15
bias (%)	-39 / -39	0.05 / 11	5 / 4
bias ($\times 10^{15}$ molecules cm^{-2})	-5.91 / -6.09	0.01 / 1.89	1.00 / 0.69

Case 1 : Direct comparison, all pixels
Case 2 : Recalculated TROPOMI, all pixels
Case 3 : Recalculated TROPOMI, azimuth-based selection