

Review of egusphere-2023-1452 "The impact of El Niño–Southern Oscillation on the total column ozone over the Tibetan Plateau" by Yang Li et al.

February 26, 2024

General comments

The article "The impact of El Niño–Southern Oscillation on the total column ozone over the Tibetan Plateau" by Yang Li et al. investigates anomalies of total column ozone over the Tibetan Plateau During El Niño and La Niña events. As for the newest revision, I recommend this article for publication after some minor changes (mostly technical).

Most issues have been resolved by the changes and the author's comments. In particular, the revised version has clarified the methodology and the text throughout the article. Furthermore, the revised text reflects the data and derivable results much better than before.

Following are some minor comments that should be addressed before acceptance to ACP.

Minor comments

- Consider adding the discussion of Table A1/B1 and Figure A1/B1 to the Appendix (or at least to the supplement) since it supports your analysis and findings.
- l 198: "QBO signal ($TCO_{\text{removeQBO}}$) can be written as follows:" is there a reference for the linear separation of the QBO effect? If so, please add it here.
- Fig. 6 caption: The difference between "thick green lines" and "green lines" is barely visible. I suggest increasing the width of the thick line. Also consider shrinking the vertical axis in order to enhance visibility of the "shaded area" around the green lines.

Technical comments

- l 195: ".. another potential important source of interannual variability." -> "another potential important source of interannual variability of TCO above the TP."
- l 335 "...thickness and thus associated with...": There si a word missing. E.g., either "are thus associated" or "thus are associated".
- l 379 "...to MAM in decaying phase...": Either "in **its** decaying phase" or "in **the** decaying phase"