The Influences of El-Nino Southern Oscillation on tropospheric ozone in CMIP6 models

The manuscript titled **"The Influences of El-Nino Southern Oscillation on tropospheric ozone in CMIP6 models"** by Thanh Le et al., attempted to mainly investigate the influence of El Niño Southern Oscillation (ENSO) on the global tropospheric ozone variations by making use of the historical simulations of the earth system climate models of CMIP6 by multivariate predictive model approach. The authors find that ENSO response to ozone is stronger in the upper and lower troposphere and these findings emphasized that the impact of the ENSO on the tropospheric ozone over mid latitude regions like southern Pacific, Atlantic and Indian oceans are significant then previously understood. Overall, this paper is well written and their findings are potentially helpful in understanding the effect of changes in the tropospheric ozone and future climate projections. I would like to recommend an acceptation after the following comments are addressed.

Major comments

1. The Pacific decadal oscillation which is also one of the main climate mode that can affect ENSO and indeed on the ozone concentrations. The authors didn't explain why other climate modes are not considered and why only three (Dipole mode Index, Southern Annual Mode and North Atlantic Oscillation) climate modes.

2. Try to elaborate mainly the common schemes in the Atmospheric Chemistry Modules that are in the models (other than the three models BCC_CSM2_MR, IPSL_CM6A_LR and MPI_ESM1_2_LR) as the behavior of these models in connection to the response of ENSO on ozone variation is similar.

3. The Text S1 which explains about the method that has been adopted should be mentioned under the method section 2.2 rather than in the supplement. It helps the reader to have a quick through of the methodology adopted in the study.

4. Why did you consider only 1000 hPa, 850 hPa, 500 hPa and 300 hPa ? Are these pressure levels enough to represent the respective atmospheric region of the atmosphere (like middle troposphere, upper troposphere). As ENSO is responsible for changes in winds and circulation patterns. It is also expected to have impact on the transport of ozone from the lower troposphere to upper troposphere and lower stratosphere. It would be interesting if you can check if the features are same in the upper levels (above 300 hPa just below the tropopause)

Specific Comments

Line Nos.:42:43: Did you check if the findings obtained using CMIP6 and CMIP5 ? If so where did you find the changes that resulted in the current result?

Line Nos.: 51: The list of the models mentioned in Table S1 should be shifted to the main manuscript instead of supplement.

Line Nos. 53:55: The authors are suggested to explain little more on the findings of the cited papers rather than just citing the paper.

The Figures can be of more clarity (mainly the stippling in figures are not at all visible (for example Figure 1 (a)) are not visible clearly, The titles in the Figure 3 should be made little big)