



Supplement of

Global sensitivity of tropospheric ozone to precursor emissions in clean and present-day atmospheres: insights from AerChemMIP simulations

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Supplement

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Figure S1. The zonal mean O₃ distribution for the MAM of 29th and 30th year of the *PiClim* experiment results from the (a) CESM, (b) GFDL, (c) GISS, and (d) UKESM model. Thick black lines represent the tropopause height for each model based on the WMO definition.

Figure S2. Same as S1, but for JJA.

Figure S3. Same as S1, but for SON.

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Figure S5. Vertical profiles of O₃ volume mixing ratio (a) chemical production and (b) chemical depletion rate for the 30th year across all available experiments in the four models..

Figure S6. Vertical profiles of (a) NO and (b) NO₂ volume mixing ratios for the 30th year across all available experiments in the four models.

Figure S7. Vertical profiles of (a) isoprene volume mixing ratio and (b) secondary organic aerosol mass mixing ratio for the 30th year of all available experiments across the three models. (c) Temporal evolution characteristics of major emissions and the chemical production of organic dry aerosol particles from all available experiments of the four models..

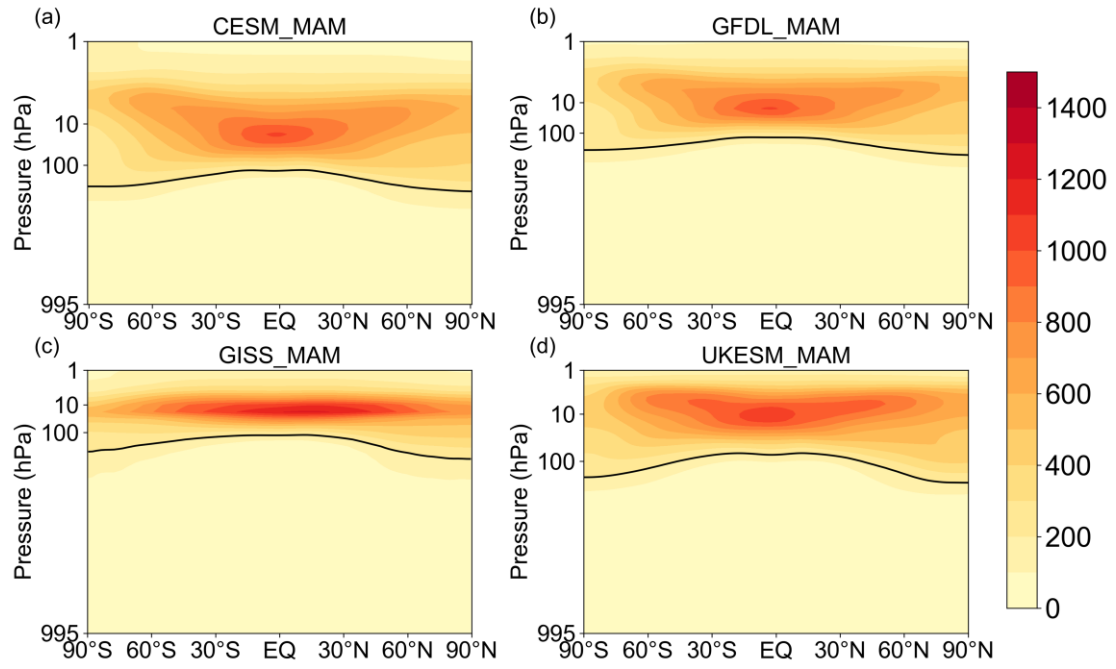


Figure S1. The zonal mean O_3 distribution for the MAM of 29th and 30th year of the *PiClim* experiment results from the (a) CESM, (b) GFDL, (c) GISS, and (d) UKESM model. Thick black lines represent the tropopause height for each model based on the WMO definition.

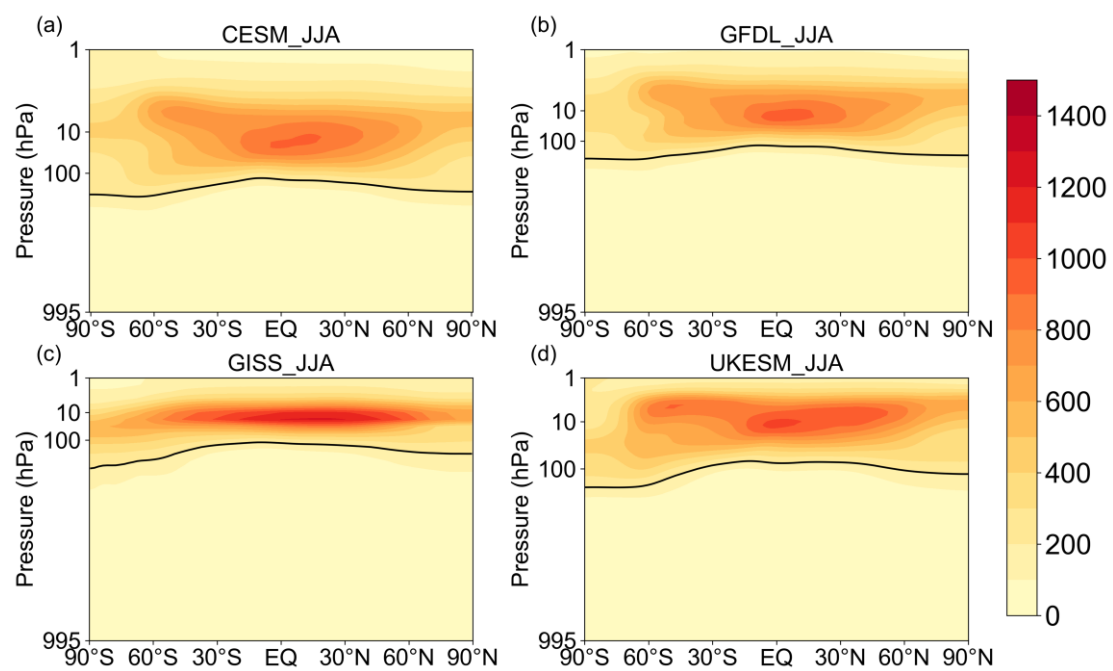


Figure S2. Same as S1, but for JJA.

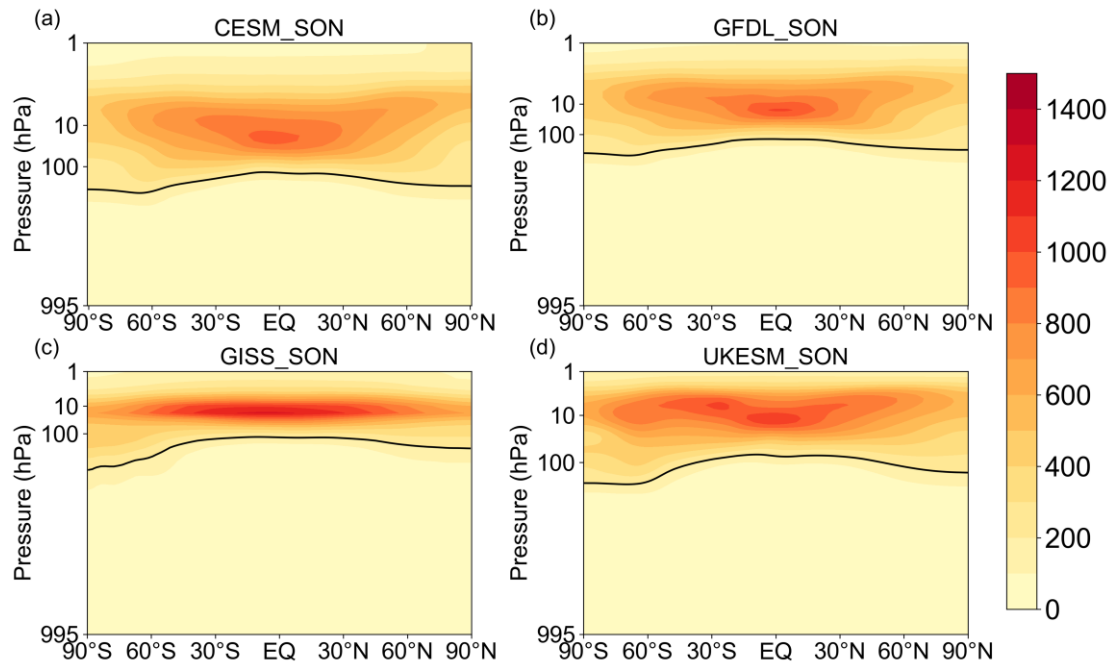


Figure S3. Same as S1, but for SON.

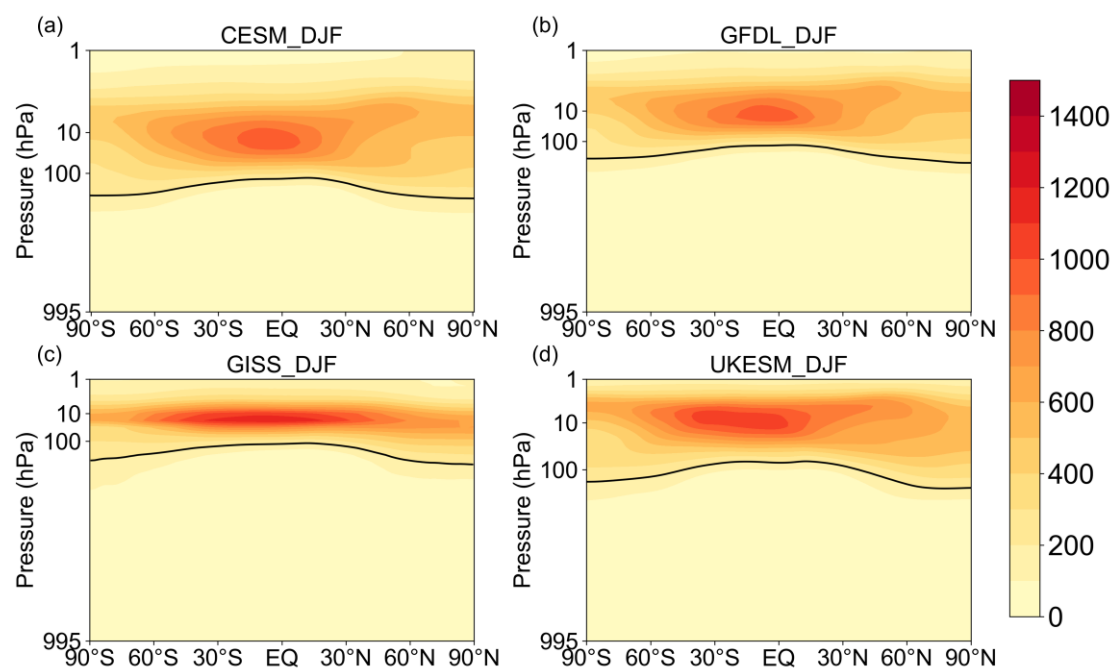


Figure S4. Same as S1, but for DJF.

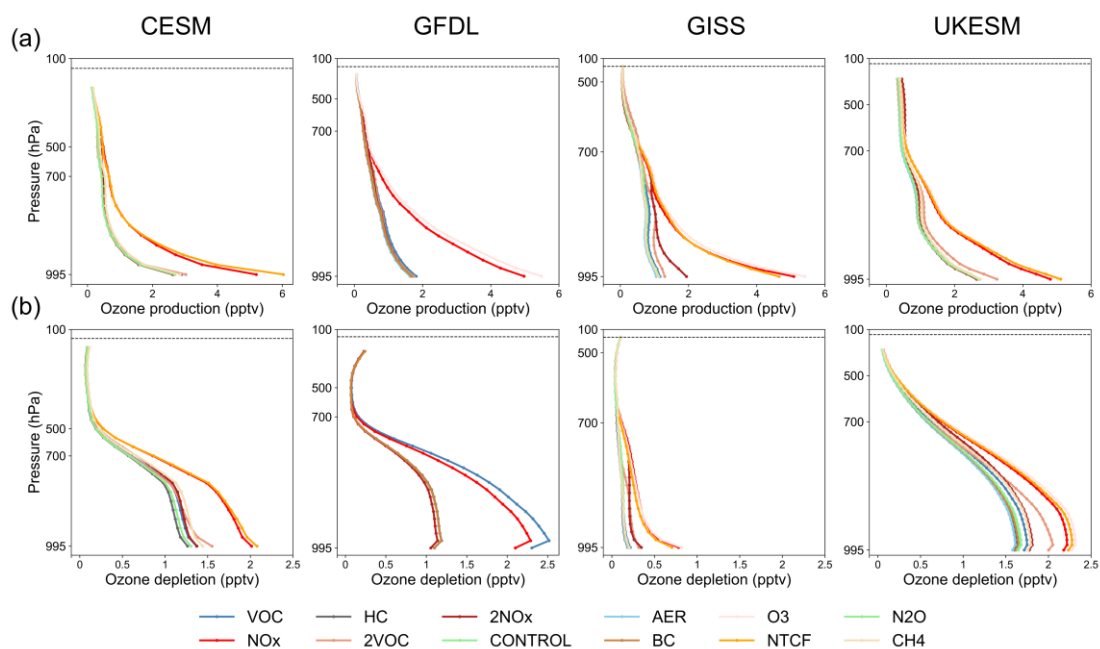


Figure S5. Vertical profiles of O₃ volume mixing ratio (a) chemical production and (b) chemical depletion rate for the 30th year across all available experiments in the four models.

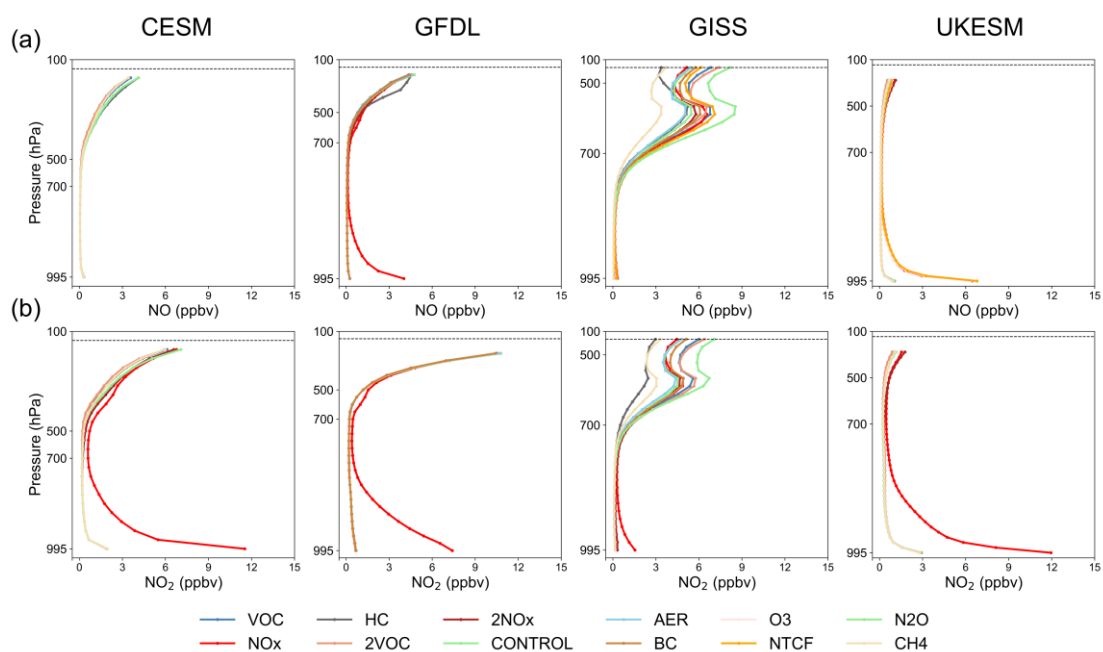


Figure S6. Vertical profiles of (a) NO and (b) NO₂ volume mixing ratios for the 30th year across all available experiments in the four models.

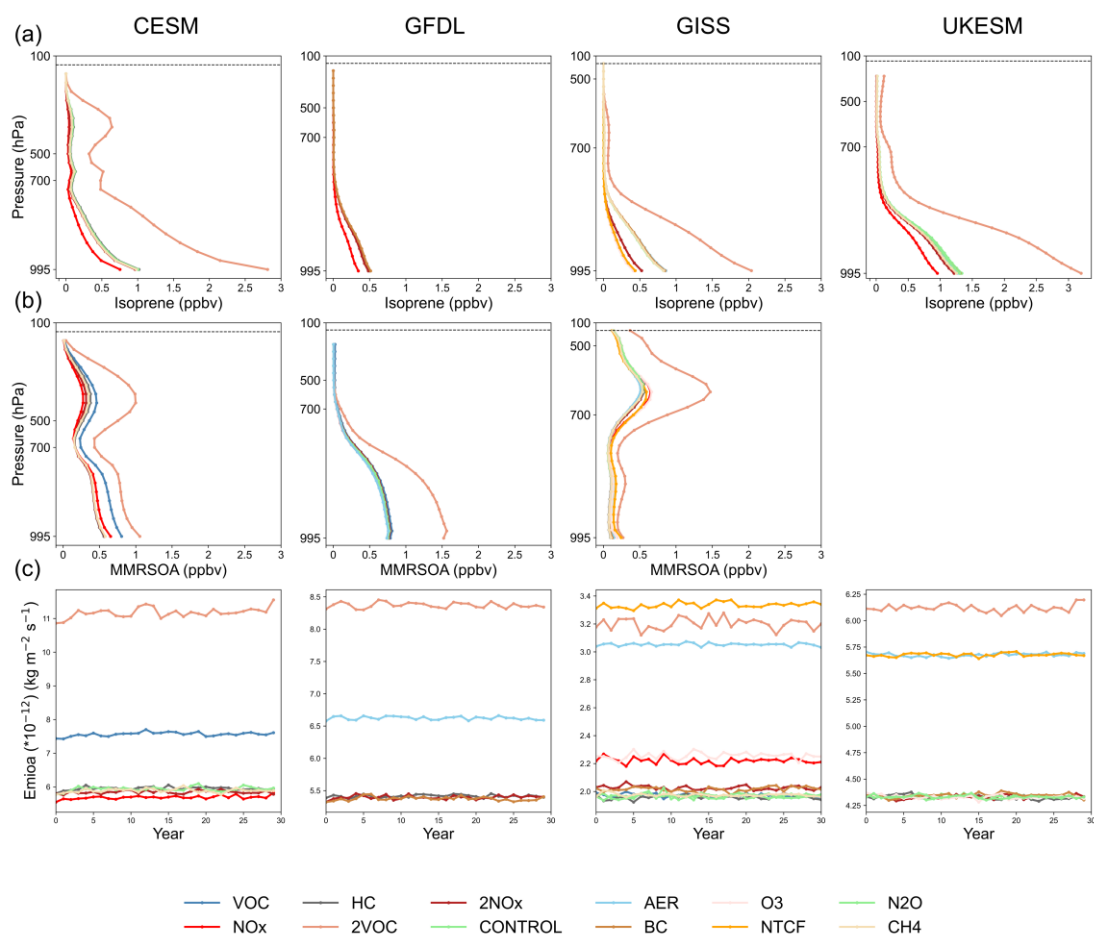


Figure S7. Vertical profiles of (a) isoprene volume mixing ratio and (b) secondary organic aerosol mass mixing ratio for the 30th year of all available experiments across the three models. (c) Temporal evolution characteristics of major emissions and the chemical production of organic dry aerosol particles from all available experiments of the four models.