

Supplementary Information
for
On the role of future anthropogenic methane
emissions in air quality and climate

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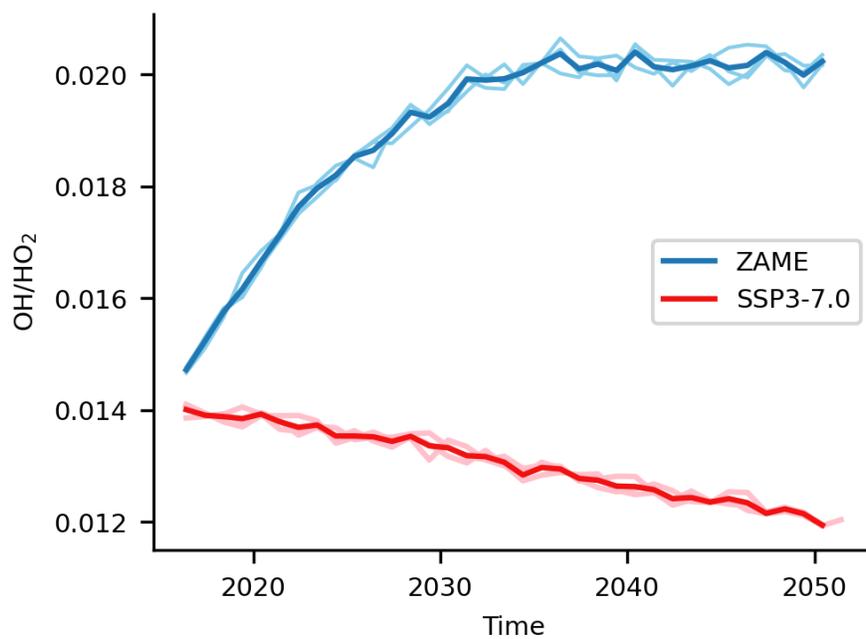
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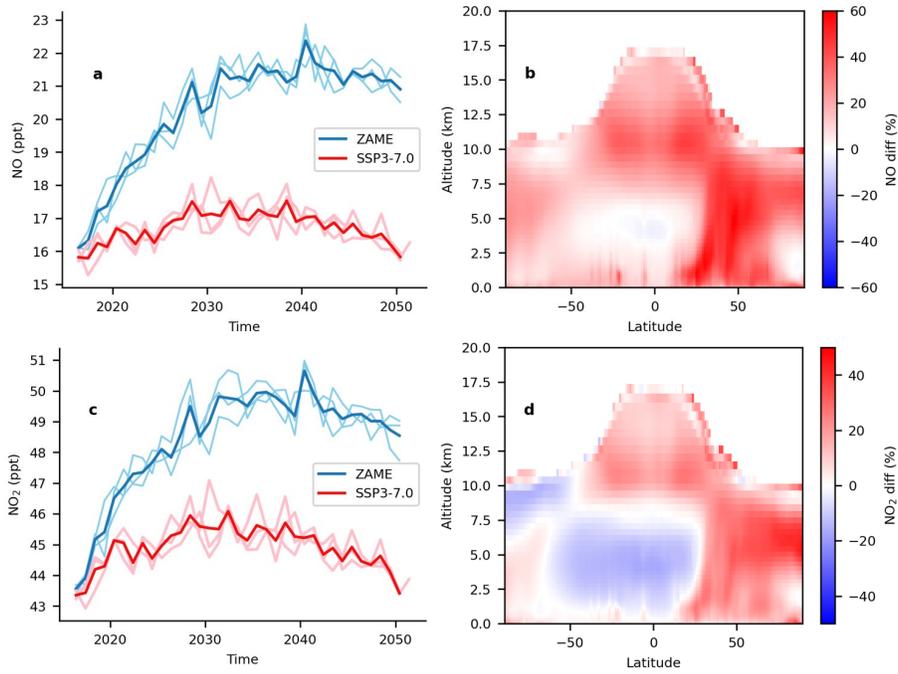
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Supplementary Figures



Supplementary Figure 1: OH/HO₂ ratio over time for ZAME and SSP3-7.0. ZAME results are shown in blue, and SSP3-7.0 in red.



Supplementary Figure 2: NO and NO₂ evolution over time and zonal decadal mean difference plots for 2040-2050. a) and c) show NO and NO₂ trends respectively over time in SSP3-7.0 (red) and ZAME (blue). b) and d) show decadal (2040-2050) zonal mean percentage difference in NO and NO₂ mixing ratio between SSP3-7.0 and ZAME. This is calculated as ZAME - SSP3-7.0, so red areas show where NO/NO₂ has increased in ZAME compared to SSP3-7.0, and blue areas show where it has decreased.

Supplementary Figure Captions

Figure Captions

- 1 **OH/HO₂ ratio over time for ZAME and SSP3-7.0.** ZAME results are shown in blue, and SSP3-7.0 in red. 2
- 2 **NO and NO₂ evolution over time and zonal decadal mean difference plots for 2040-2050.** a) and c) show NO and NO₂ trends respectively over time in SSP3-7.0 (red) and ZAME (blue). b) and d) show decadal (2040-2050) zonal mean percentage difference in NO and NO₂ mixing ratio between SSP3-7.0 and ZAME. This is calculated as ZAME - SSP3-7.0, so red areas show where NO/NO₂ has increased in ZAME compared to SSP3-7.0, and blue areas show where it has decreased. 3