

Transport tracer for AeroCom III model experiments

Transport tracer:

- CO with a 50-day lifetime (exponential decay rate of 4.32×10^6 s) and prescribed same sources for all simulated years.
- Prescribed sources:
 - CO from anthropogenic emissions: CMIP6, 2010
 - CO from biomass burning emissions: CMIP6, 2010
 - CO from CH₄ oxidation: assuming a fixed CH₄ concentration at 1760 ppbv, CH₄ lifetime of 8.5 years (exponential decay time of 2.681×10^8 s) to form CO with a CO molar yield of 0.86.
 - CO from anthropogenic NMVOC oxidation: total anthropogenic NMVOC emission from CMIP6 2010 (aVOC) with fixed decay time of 1 week (exponential decay rate of 6.048×10^5 s) to form CO and a CO molar yield of 0.70
 - CO from biogenic NMVOC oxidation: total biogenic NMVOC emission (bVOC) will be provided that shares similarity with isoprene emission. bVOC has a fixed decay time of 1 day (exponential decay rate of 86400 s) to form CO with a molar yield of 0.40