Supplement of

Incorporation of lumped IVOC emissions into the ORACLE model (V1.1): A multi-product framework for assessing global SOA formation from internal combustion engines

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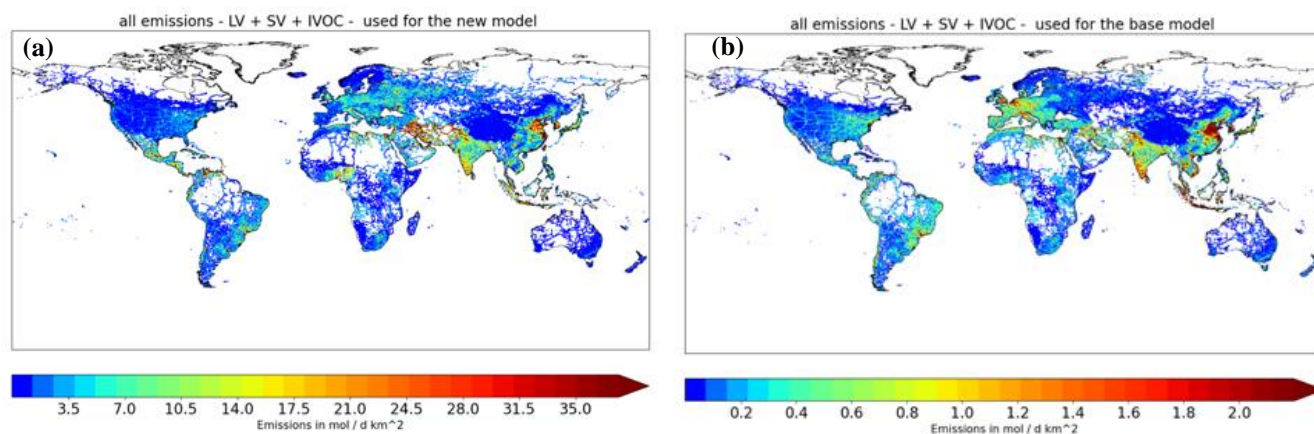
Figure S1: All primary emissions (LVOC+SVOC+IVOC) used for a) the lumped species simulation in ORACLE-IVOC and (b) the ORACLE-base simulation. In both cases, LVOC and SVOC taken from the OC inventory with proportions of 0.1 and 0.9, respectively. For (a), IVOC are considered with individual IVOC/NMVOC emission factors from both the gasoline and diesel NMVOC inventories, for (b), IVOC are approximated with 1.5 times the emissions from the OC inventory.

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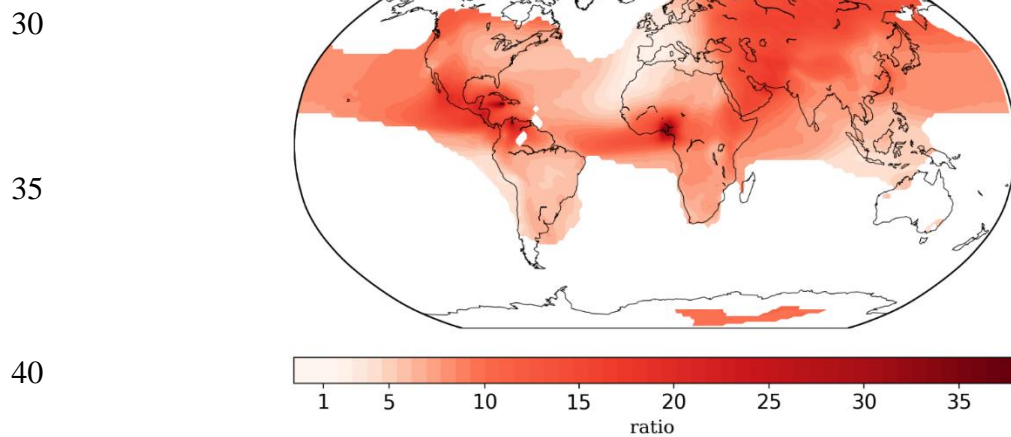
Figure S2: Road transport SOA-iv from ORACLE-IVOC as a multiple of SOA-iv from ORACLE-base. Locations where ORACLE-IVOC concentrations are below the 60th percentile are shown in white.

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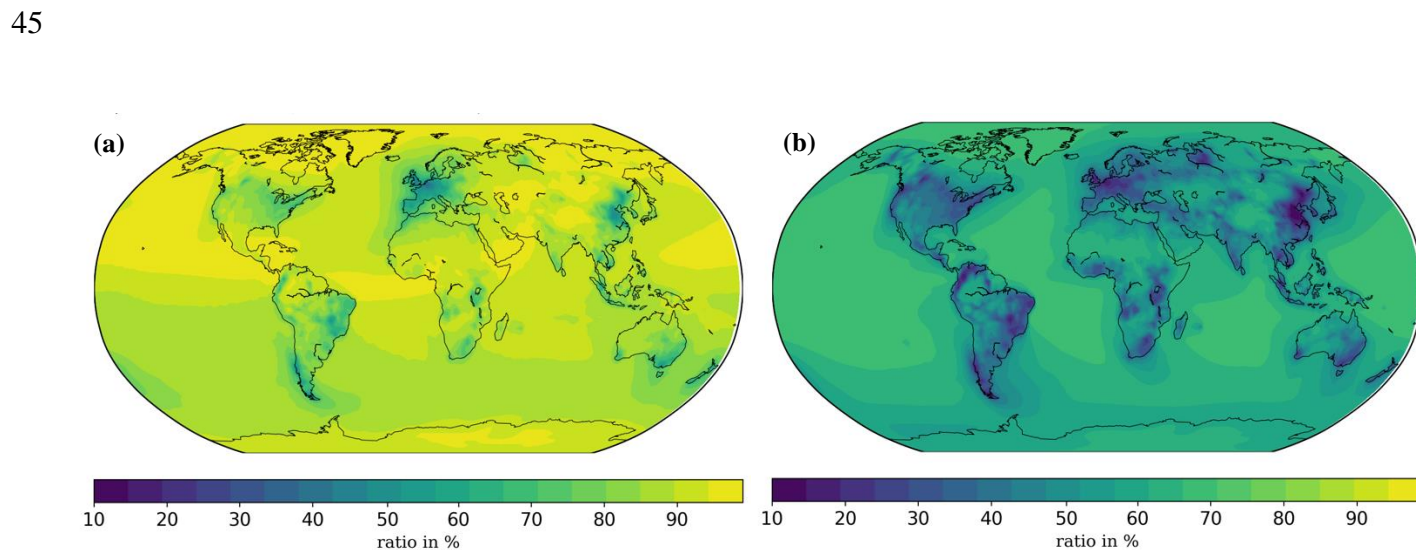
Figure S3: Ratio of modelled SOA-iv to total OA from road transport emissions as simulated with (a) ORACLE-IVOC and (b) ORACLE-base.

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