

*Environmental Science: Atmospheres*

Electronic supplementary information for

**URMELL – Part II: Semi-explicit isoprene and aromatics gasSOA  
modelling**

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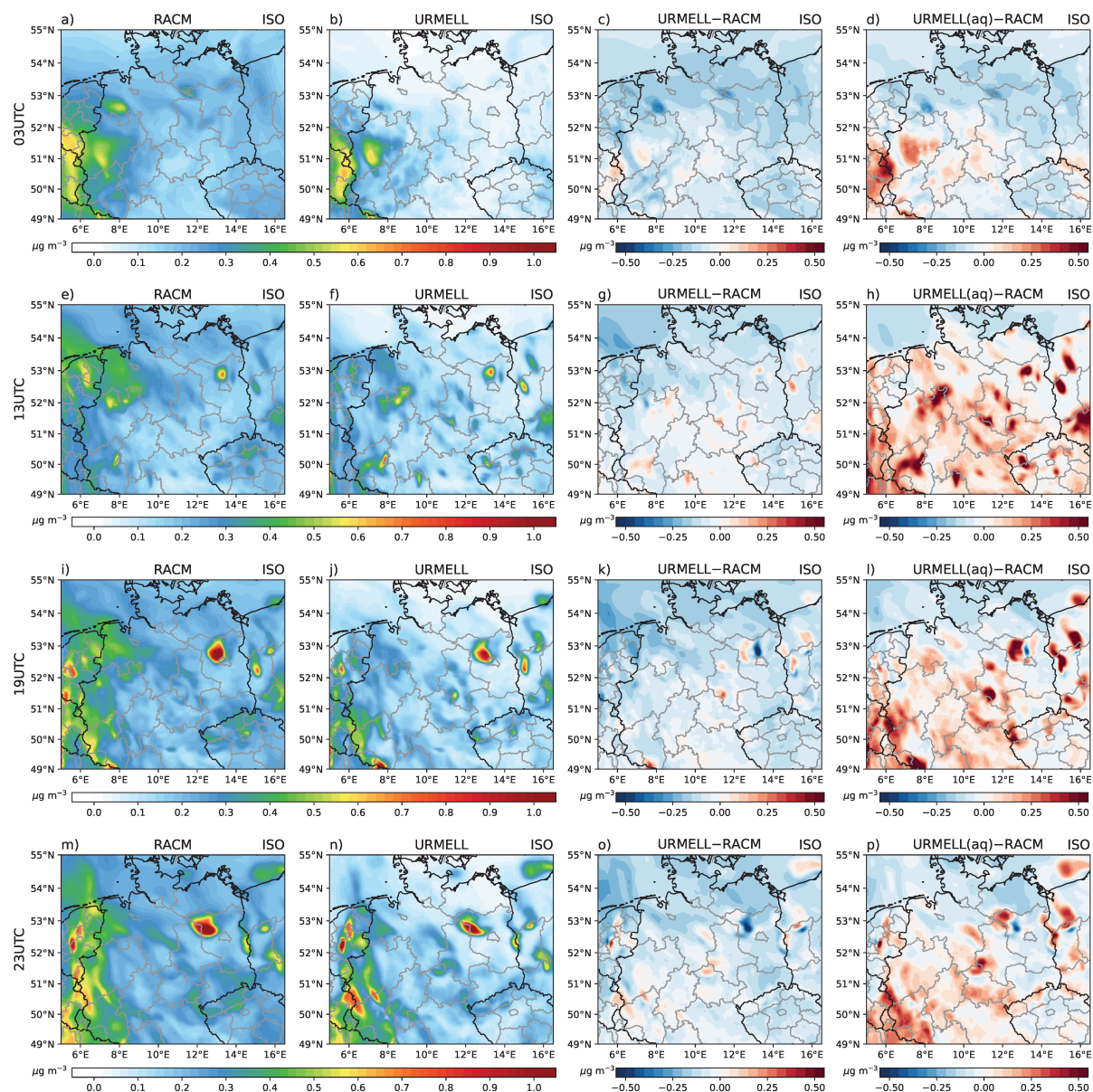
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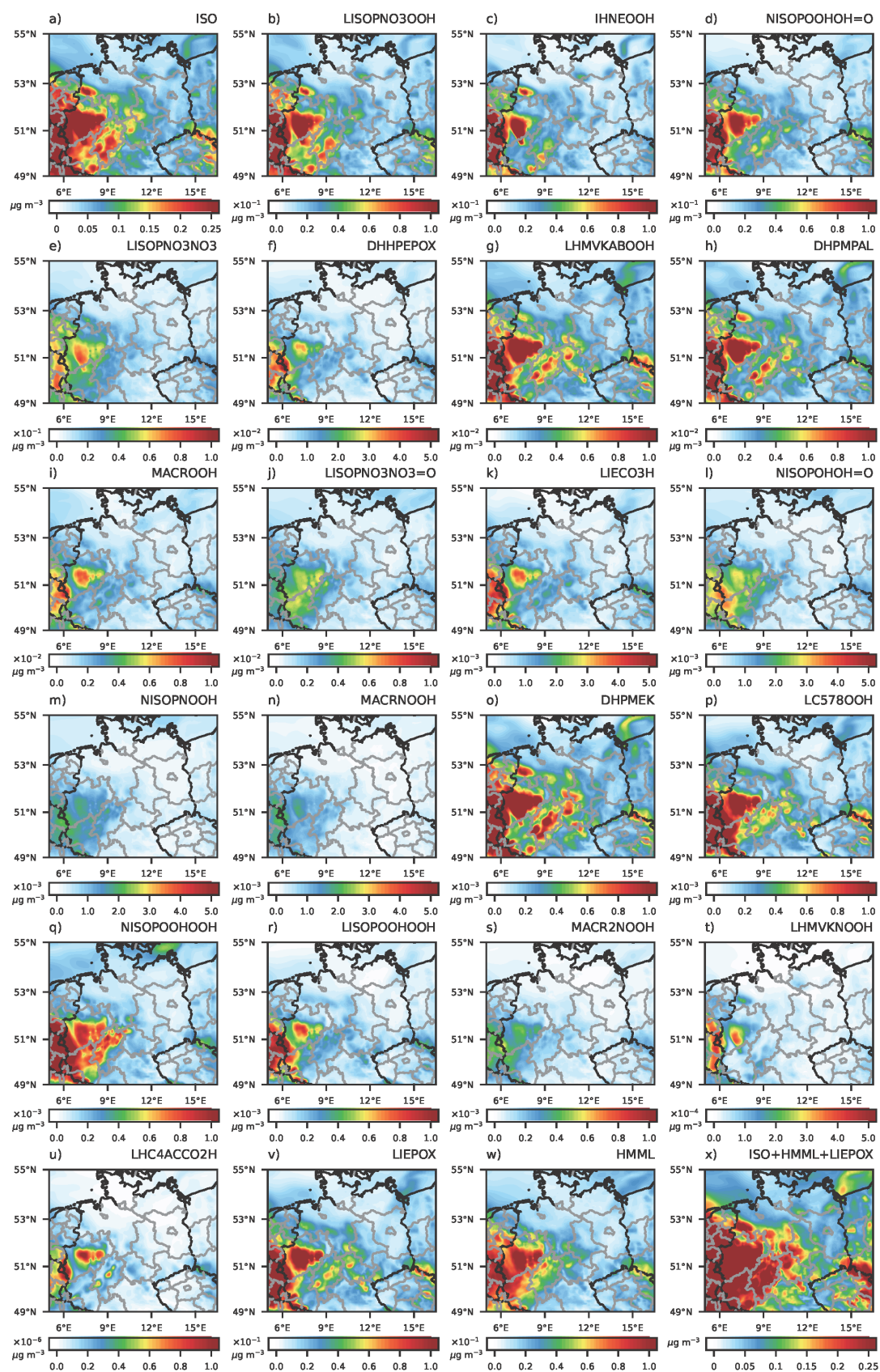
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**Supplement S3**

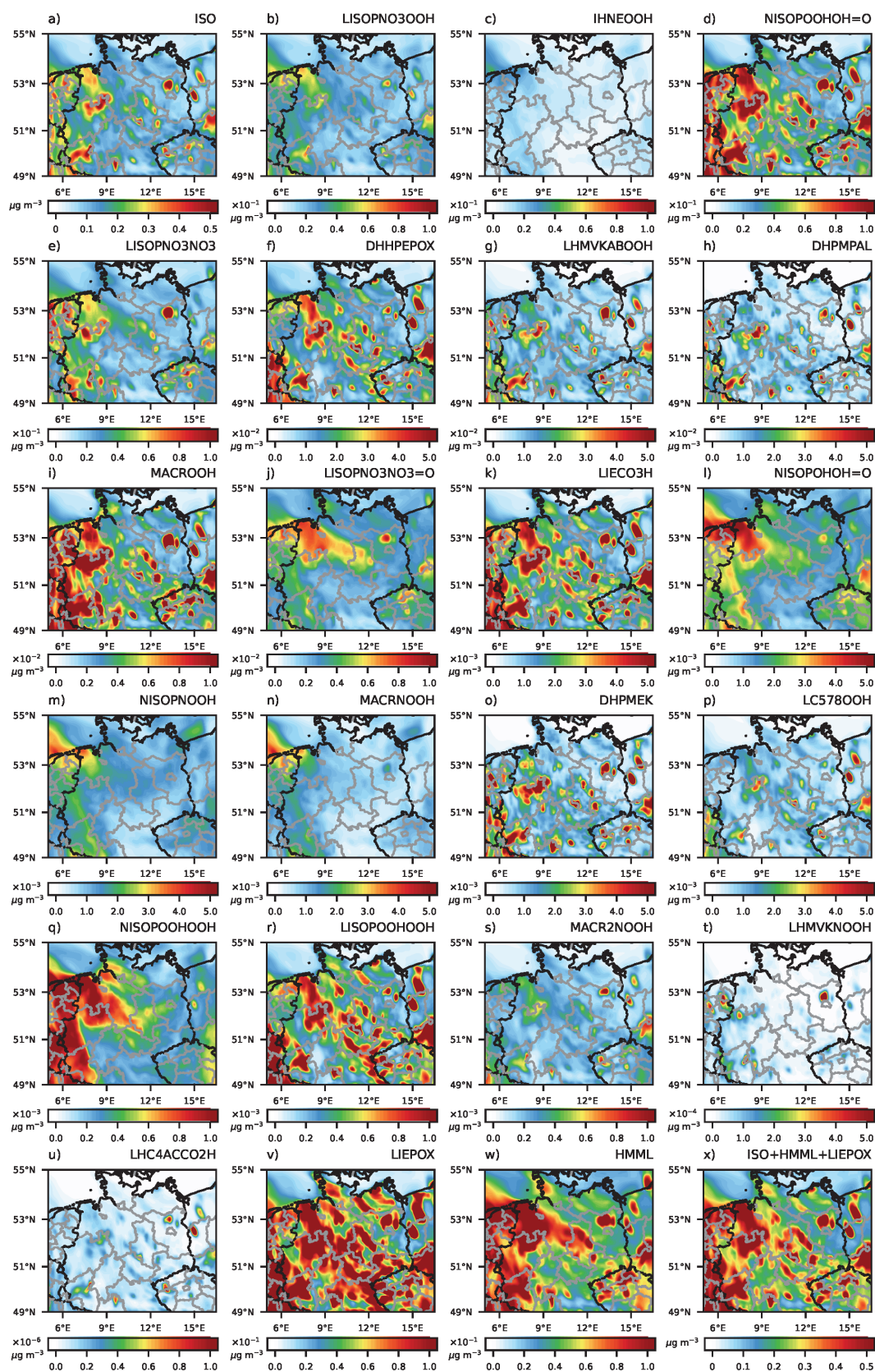
Supplement S3 contains map plots of the total and individual isoprene gasSOA and precursor substance concentrations for 3, 13, 19 and 23 UTC. All map plots have been generated using python and the data is available at Zenodo at <https://doi.org/10.5281/zenodo.11444412>.



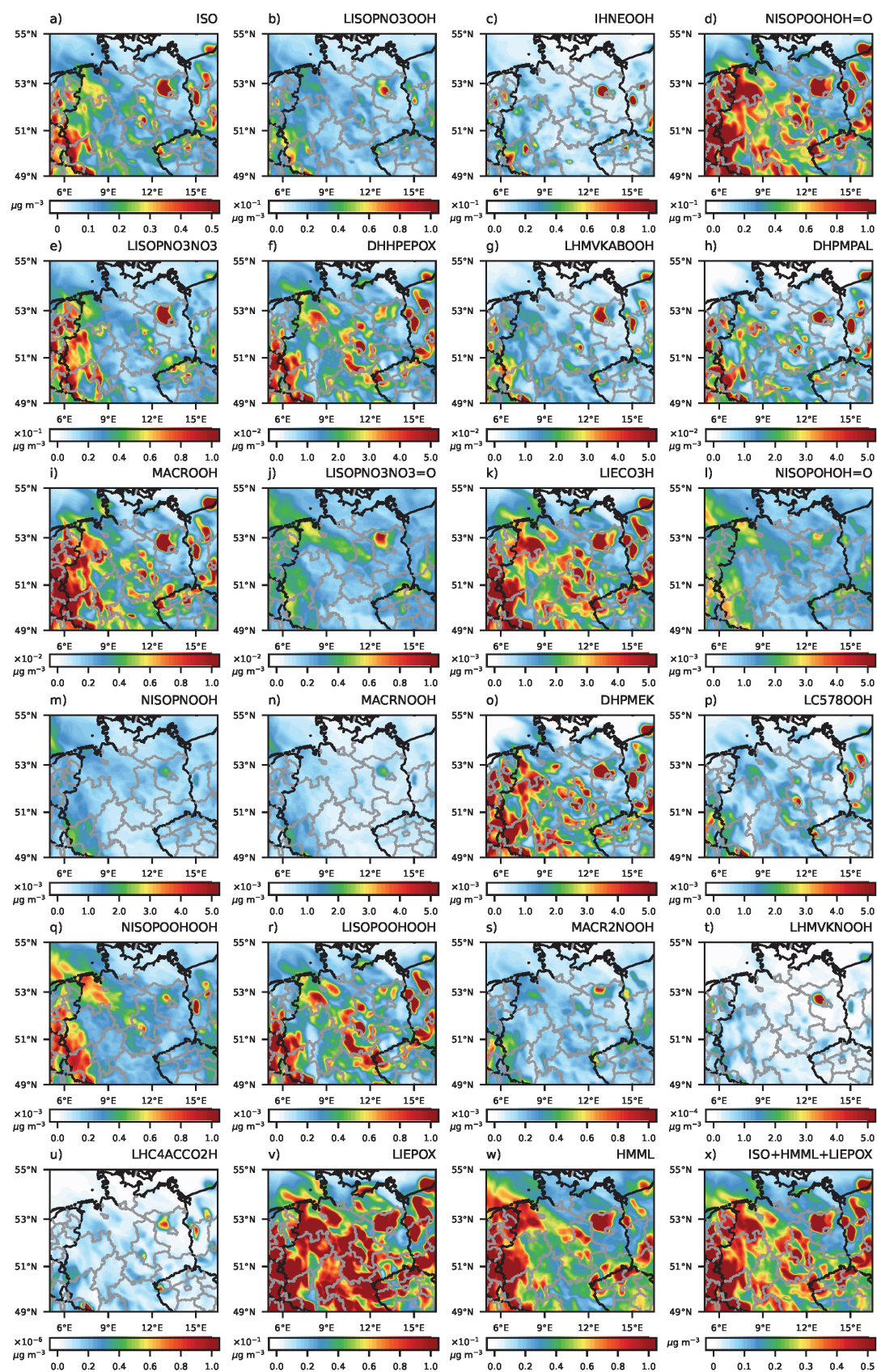
**Fig. S3-1:** Total isoprene gas-phase concentration on the 20<sup>th</sup> of May 2014 for RACM a), e), i) and m); URMELL b), f), j) and n); difference between URMELL and RACM c), g), k) and o); difference between URMELL including the possible aqSOA precursor substances LIEPOX and HMML and RACM d), h), l) and p) for 3 UTC, 13 UTC, 19 UTC and 23 UTC respectively.



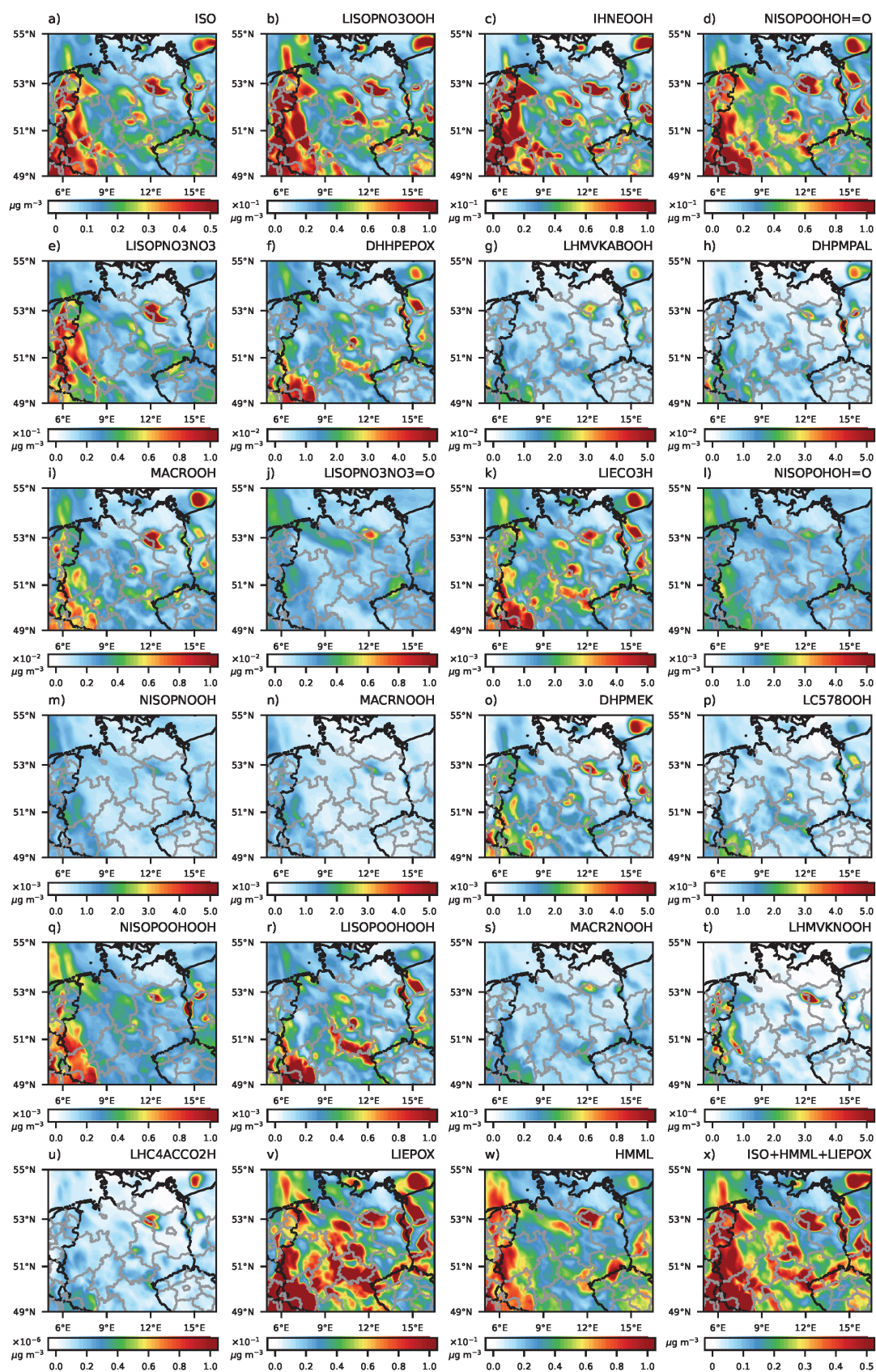
**Fig. S3-2:** Contribution of the individual isoprene gasSOA precursor substances to the gas phase at 3 UTC. Plots v) and w) show the aqSOA precursor concentration of LIEPOX and HMML and x) the sum of gasSOA and possible aqSOA precursor concentration. Note, the changing magnitude of the individual figures starting with the highest concentrations.



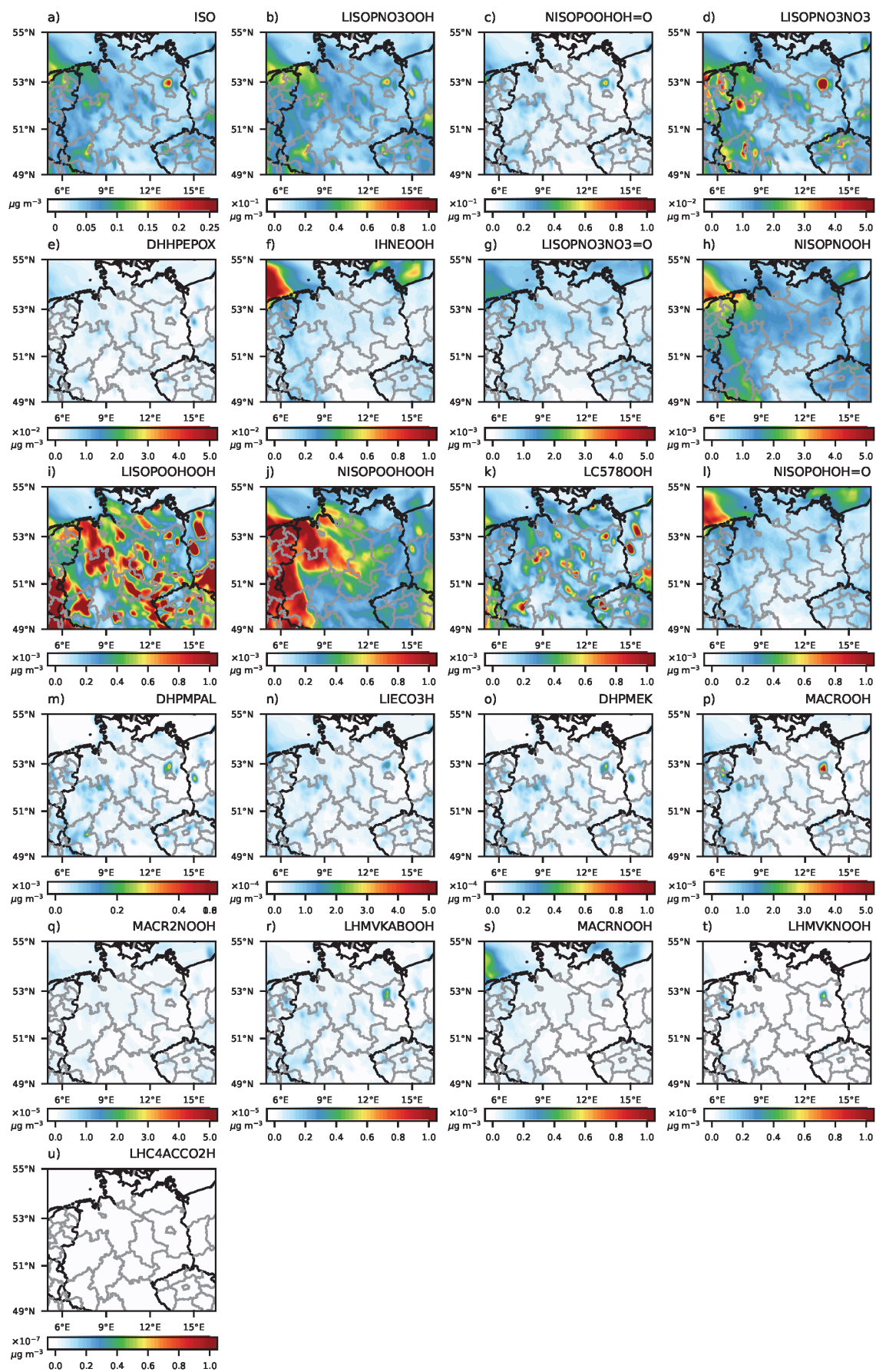
**Fig. S2-3:** Contribution of the individual isoprene gasSOA precursor substances to the gas phase at 13 UTC. Plots v) and w) show the aqSOA precursor concentration of LIEPOX and HMML and x) the sum of gasSOA and possible aqSOA precursor concentration. Note, the changing magnitude of the individual figures starting with the highest concentrations.



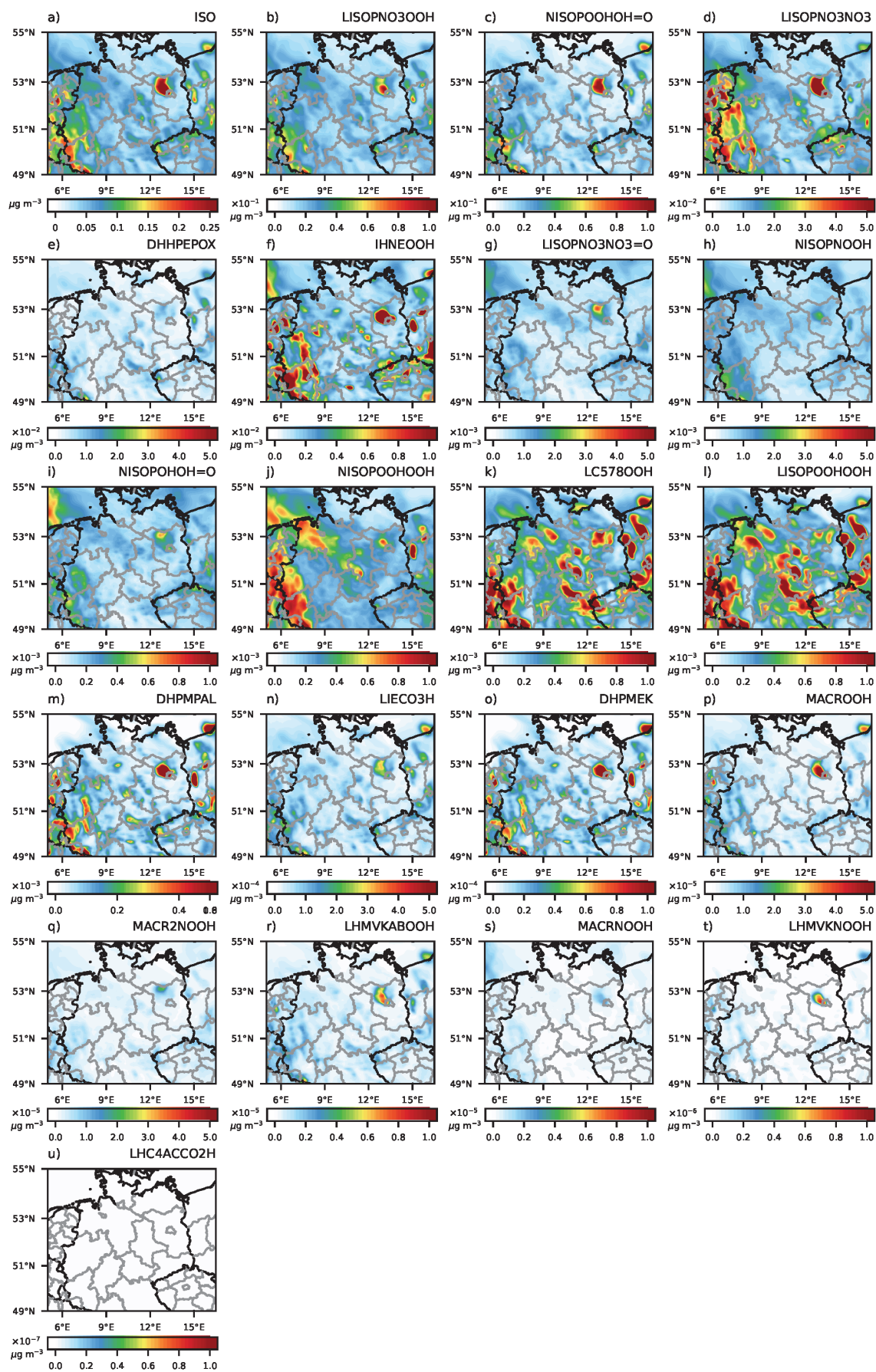
**Fig. S2-4:** Contribution of the individual isoprene gasSOA precursor substances to the gas phase at 19 UTC. Plots v) and w) show the aqSOA precursor concentration of LIEPOX and HMML and x) the sum of gasSOA and possible aqSOA precursor concentration. Note, the changing magnitude of the individual figures starting with the highest concentrations.



**Fig. S2-5:** Contribution of the individual isoprene gasSOA precursor substances to the gas phase at 23 UTC. Plots v) and w) show the aqSOA precursor concentration of LIEPOX and HMML and x) the sum of gasSOA and possible aqSOA precursor concentration. Note, the changing magnitude of the individual figures starting with the highest concentrations.

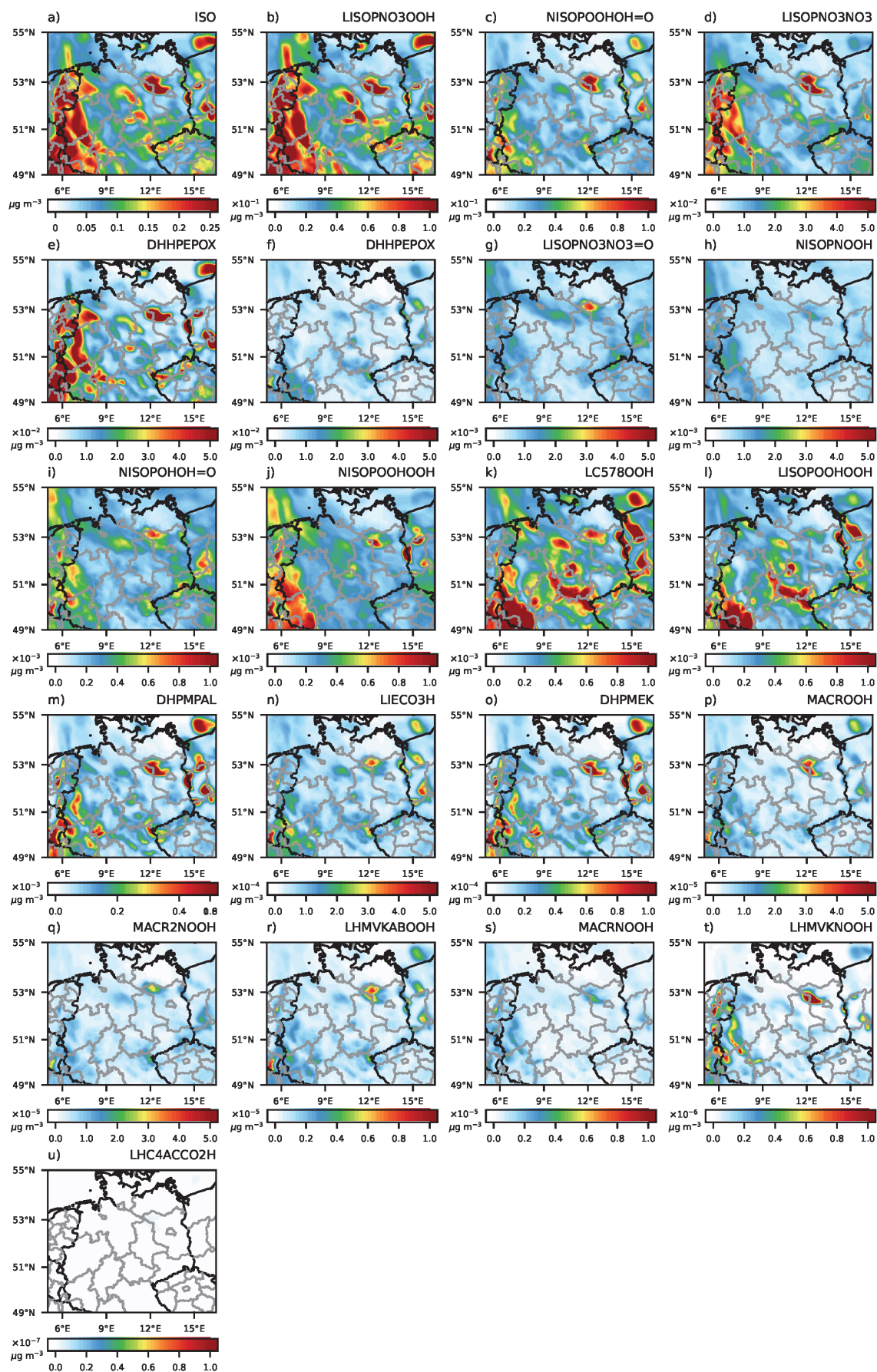


**Fig. S2-6:** Contribution of the individual isoprene gasSOA precursor substances to the particle phase at 13 UTC. Note, the changing magnitude of the individual figures starting with the highest concentrations.



**Fig. S2-7:** Contribution of the individual isoprene gasSOA precursor substances to the particle phase at 19 UTC. Note, the changing magnitude of the individual figures starting with the highest concentrations.





**Fig. S2-8:** Contribution of the individual isoprene gasSOA precursor substances to the particle phase at 23 UTC. Note, the changing magnitude of the individual figures starting with the highest concentrations.