

Supplementary materials

For

Photochemical reaction playing a key role in particulate matter pollution over Central France: Insight from the aerosol optical properties

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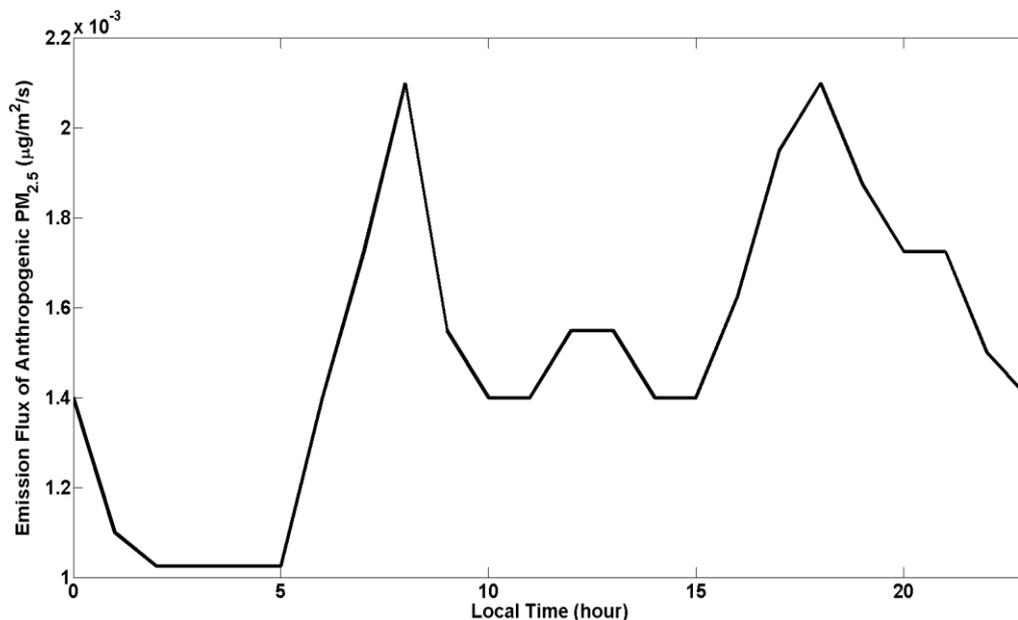
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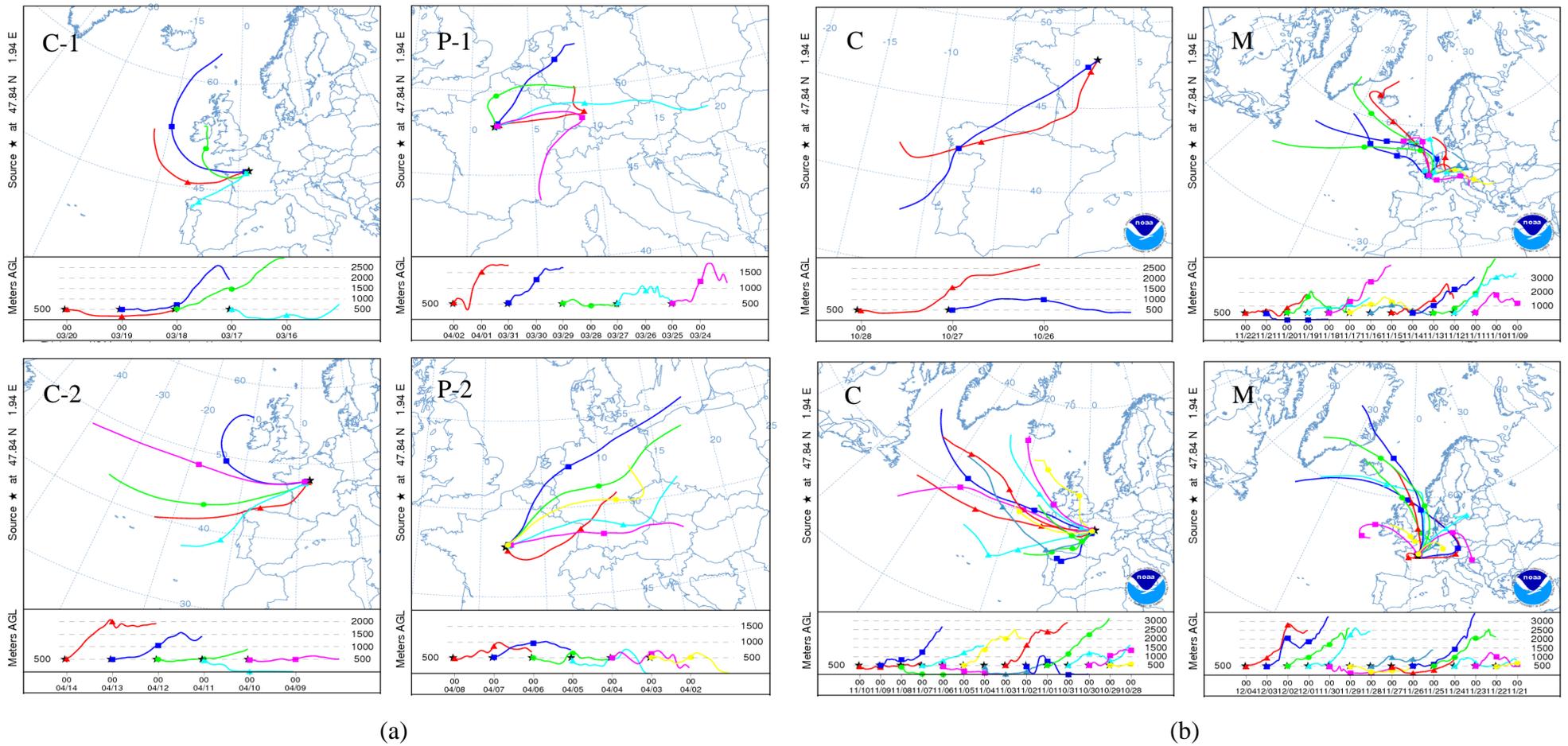
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Supplementary Figure S-1: The anthropogenic emission flux of PM_{2.5} at the measurement site. The human activity factor in term of PM emission is derived based on this. The peaks around 08:00 and 18:00 represent the traffic rush hours. The emission data from TNO with consideration of emissions from industry, traffic, residential, agriculture, power and energy and etc.(Kuenen et al., 2014).

Supplementary References:

Kuenen, J. J. P., Visschedijk, A. J. H., Jozwicka, M., and van der Gon, H., 2014. TNO-MACC_II emission inventory; a multi-year (2003-2009) consistent high-resolution European emission inventory for air quality modelling. *Atmospheric Chemistry and Physics*. 14, 10963-10976.



Supplementary Figure S-2: The air parcel backward trajectories arriving at 500 m above ground level at Orleans from: (a) 7 March to 25 April, (b) 25 October to 5 December 2013.