



A pm emission inventory for a multi-phase modelling exercise over south-west of spain

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Chemical and Transport Models (CTM) are useful tools for Air Quality Authorities trying to evaluate the efficiency of an emission control strategy. Emission Models are key components, because they provide to CTM 3D fields describing features of current pollutant emissions or of possible alternative scenarios. An Emission Model processes different information to convert emissions to the resolution required by the CTM. In particular the Emission Model must perform the temporal modulation (to disaggregate data to hourly values), the spatial allocation (distributing data to the requested CTM grid), and the chemical speciation (to translate raw pollutant data into the chemical species required by the CTM chemical module). PM Emission Models also provide particle size split.

In this work an Emission Model providing PM Emission Inventory for Huelva-Sevilla area (West-South of Spain) is presented. The inventory includes industrial and on-road traffic sources. The PM emissions are described by means of chemical and size split profiles collected from US and EU databases. The obtained PM Emission Inventory will be used to extend to multi-phase model simulations a photochemical pollution modelling application recently performed over the study domain.

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