CONTRIBUTIONS TO CARBONACEOUS PARTICULATE MATTER IN OSLO, NORWAY

Slørdal, L.H., Simpson, D., Espen, K., Tove, Y. and Solberg, S.S.

Abstract: The urban chemical transport model EPISODE has been applied to assess the contribution of carbonaceous aerosols to the air concentrations of $PM_{2.5}$ in Oslo, Norway. The influence of secondary organic aerosols has been estimated by use of a traditional gas/particle partitioning absorption module.

The urban calculations have been made with local emissions distributed within a 1 km x 1 km model grid covering the urban area. Boundary conditions have been updated on an hourly basis from the EMEP MSC-W model. In order to simplify the interpretation of the model output, identical SOA modules have been applied in the EPISODE and the EMEP model.

The model system has been applied both for a summer and a winter period in which the model output could be compared with local $PM_{2.5}$ and EC/OC measurements as well as observations of hourly values of NO_2 and O_3.

In this presentation a brief description of the applied model system will be given. The main part will be devoted to the discussion of the comparison of the model output and the measurements. Finally, some remarks on the main uncertainties will be made.