Abstract Details

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Title: A simulation of a Asian dust(Hwangsa) event observed in Korea duri 12 March 2004

Abstract:

A Hwangsa (Asian dust) event was observed in Korea for the period 12 March 2004. This event has been simulated using the Asian Dust A Model(ADAM) with the MM5 meteorological model. The present simul includes the PM10 emission in the model domain that is usually not ir in the Asian dust models. It is found that the model simulates quite w observed PM10 concentrations of more than 700 ug m and the startir ending times of the event in Korea. The simulated dust particle sizes that most of the mass concentrations of dust in the source regions ar mainly contributed by dust particles larger than PM10 whereas those distant regions from the sources are largely contributed to the PM10 particles, suggesting the usefulness of the particle size spectrum in identifying the origin of a dust storm. The contribution of the PM10 er is much lower than the observed background PM10 concentration dur non-dust period, suggesting much of the PM10 concentrations being composed of transformed particulates from gaseous pollutants.

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