

ON THE PM₁₀/PM_{2.5} EPISODES IN ATHENS DURING SUMMER 2000.

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ABSTRACT

During the period 1999-2000 particle air mass concentrations (PM_{2.5}, PM₁₀) were measured in the Center of Athens. Sampling was conducted over 24-h period. It was found that as much as 10% of the measured values are greater than 110 µg/m³. These concentrations were correlated with other air pollutants as well as meteorological parameters. The analysis proved that enhanced concentrations are associated with southern wind flow and synoptic systems resulting to surface weak flows. Two episodic events detected during summer 2000 were discussed and analyzed. As it was found PM₁₀/PM_{2.5} episodes are usually associated with weak airflows on the ground mainly from southern directions. The concentrations of coarse particles were higher than those of fine particles during these episodes, while enhanced concentrations of reactive pollutants were also found in the Basin for the same time period.