



AEROSOL SIZE DISTRIBUTION AND COMPOSITION NEAR BUCHAREST DURING MAY 2010

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Abstract

The chemical composition, complete mass spectra and size distribution of ambient aerosols was analyzed for several weeks during spring 2010 near Bucharest, Romania. Preliminary results of the first measurements using an Aerosol Mass Spectrometer (AMS) are presented in this study.

A significant accumulation mode with a peak around 350-600 nm was usually observed principally composed of sulfate, organics, ammonium and some nitrate.

Particle-size distribution measurements over the full range of the fine fraction of the atmospheric aerosol have been done using two instruments based on time of flight and in a side-by-side configuration, an AMS and an aerosol particle sizer (APS).

The particle size distributions characterizing different chemical components showed similar peaks and shapes suggesting that nitrate, sulfate, and organic species are probably internally mixed in the same particles.

Key words: aerosols composition, aerosol mass spectrometer, size distribution

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