

Aerosol mass spectrometry measurements at an urban site of Tokyo in the summer of 2008

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An intensive measurement of aerosol and trace gases was made inside the Hongo campus of the University of Tokyo in the summer of 2008. Two aerosol mass spectrometers were deployed; an Aerodyne high-resolution- time-of-flight aerosol mass spectrometer (AMS) and a laser-desorption/ionization single-particle aerosol mass spectrometer (LISPA-MS) developed in Nagoya Univ. The LISPA-MS utilize laser desorption/ionization, whereas particles in the AMS instrument are volatilized by impaction onto a heated surface with the resulting components ionized by electron impact. Thus mass spectral data from the AMS are representative of the ensemble of particles sampled, and those from the laser-based instruments are representative of individual particles. Combining the results from both mass spectrometry measurements can offer new insight into the chemical composition of the aerosol particles. The brand-new observation data and analysis will be presented with discussions.