

Observation of aerosol particles at Okinawa in spring using a laser-ionization single-particle aerosol mass spectrometer

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Using a laser-ionization single-particle aerosol mass spectrometer (LISPA-MS), observation of atmospheric aerosol particles was performed at Okinawa in spring, 2006. The instrument obtains both size and chemical compositions of the individual particles with a high time resolution (about 2 s at the maximum). During Kosa events, nitrate was detected for 44 % of sea-salt particles and sulfate was detected for 18 % of the particles. On the other hand, nitrate was detected for 7 % of dust particles and sulfate was detected for 58 % of the particles. These results suggest that uptake of gaseous nitrate occurs on sea-salt particles.