

SUBMICRON AEROSOL PARTICLES AT MAITRI, ANTARCTICA

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Concentration and size distribution of submicron aerosols in the size range of 3 – 1000 nm are measured with a Scanning Mobility Particle Sizer at Maitri, during the summer period of January – February, 2005. Total concentration increases from 100 – 500 cm⁻³ in January to 400 – 1200 cm⁻³ in February. Also, size distribution of aerosol particle changes from monomodal with a maximum at 70 - 90 nm in January to bimodal with maxima at 20 - 30 nm and 70 – 90 nm, in February. During the periods of lull or very low wind speeds, exceptionally high concentrations of particles of size smaller than 40 nm appear. Results are discussed in terms of various sources and sinks.