Thermodenuder-Aerodyne Aerosol Mass Spectrometer System: Lab Characterization and Initial Field Deployment Results

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A thermodenuder system, based largely on the model of Wehner et al., 2002, was designed, constructed, and tested at Aerodyne Research Inc., and was characterized in the laboratory at the University of Colorado. Characterization of the instrument is shown, although this work is ongoing. The instrument was deployed in series before an Aerodyne High Resolution Time of Flight Aerosol Mass Spectrometer (HR-ToF-AMS) and Scanning Mobility Particle Sizer (SMPS) for three field campaigns in 2005 and 2006. Example results will be shown from the SOAR-I study in Riverside, CA during July and August 2005, and the MILAGRO study in Mexico City (T0) of March 2006.