ABSTRACT

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Ground-Based Measuremements of NO_2 from Table Mountain for Validation of OMI Measurements

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High-resolution (0.05 cm^{-1}) ground-based UV-visible interferometry has been employed to measure the column abundance of NO_2 using the technique of direct solar absorption spectroscopy. Solar spectra were recorded at the Table Mountain Facility of the Jet Propulsion Laboratory, located near Wrightwood, California using the Fourier Transform Ultraviolet Spectrometer (FTUVS). Spectra obtained over a full diurnal cycle were obtained in the spectral region near 23,250 cm^{-1}, and compared with laboratory reference spectra. Several NO_2 vibronic features could be observed. This presentation will summarize the progress made in the analysis of the Table Mountain spectra, and speculate on the feasibility of retrieving vertical profile information for NO_2 at two or more levels in the atmosphere.