

LINE PARAMETERS OF CO₂ BETWEEN 4500 AND 7000 cm⁻¹.

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To enable column CO₂ measurements from space with 0.3% precisions by the Orbital Carbon Observatory, positions and intensities were measured for 125 near-IR CO₂ bands using Voigt line shapes. Self- and air-broadening coefficients were obtained for the stronger bands as well. In addition, measurement of the 30012 - 00001 band at 6348 cm⁻¹ was repeated using constrained multispectrum fitting^a employing a speed dependent Voigt profile and the off-diagonal relaxation matrix elements (RME) formulation for line mixing. For this, high resolution, high signal-to-noise ratio spectra were recorded at room temperature with the McMath-Pierce Fourier transform spectrometer on Kitt Peak.

^aD. Chris Benner et al. *JQSRT*, **53**, 705-721, 1995. Benner et al. in preparation.