PRESSURE BROADENING AND SHIFT COEFFICIENTS FOR THE $^{22}_1^0 1$-0$^0_0$ BAND OF $^{12}$C$^{16}$O$_2$ NEAR 6348 cm$^{-1}$

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Room temperature values of self- and air-broadening and pressure shift coefficients for the $^{22}_1^0 1$-0$^0_0$ (30012-00001) combination band of $^{12}$C$^{16}$O$_2$ located near 6348 cm$^{-1}$ were determined from analysis of high-resolution laboratory spectra. The results were obtained from analyzing eight self-broadened and twelve air-broadened spectra that were fit simultaneously with a multispectrum nonlinear least squares technique. All data were obtained using a natural isotopic sample of CO$_2$ at a resolution of about 0.01 to 0.012 cm$^{-1}$ with the McMath-Pierce FTS at the National Solar Observatory on Kitt Peak and a 6-m base path White cell. The path lengths varied between 24 and 121 m and the sample pressures were in the 11 to 900 Torr range. Present results will be compared to values reported in the literature.\textsuperscript{a,b,c,d}


\textsuperscript{b}L.S. Rothman et al. The HITRAN 2004 Molecular Spectroscopic Database. JQSRT (in press)

\textsuperscript{c}J. Henningsen and H. Simonsen, The $^{22}_1^0 1$-0$^0_0$ band of CO$_2$ at 6348 cm$^{-1}$: line strengths, broadening parameters and pressure shifts, J. Mol. Spectrosc. 203, 16-27 (2000).

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