MEASUREMENTS OF N_2- AND O_2-PRESSURE-INDUCED BROADENING AND PRESSURE-INDUCED SHIFTS FOR $^{16}O^{12}C^{32}S$ TRANSITIONS IN THE ν_3 BAND

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Nitrogen and oxygen pressure-broadening and pressure-induced shift coefficients for 42 transitions of $^{16}O^{12}C^{32}S$ with quantum number m from -25 to 49 in the P and R branches of the ν_3 band at 2062 cm^{-1} have been measured at room temperature using the UNB high-resolution tunable diode laser spectrometer. Significant dependence of the broadening coefficients on rotational quantum number is observed; the low-m limits are approximately 0.110 and 0.097 cm^{-1}/atm for N_2 and O_2 broadening, respectively, decreasing to 0.085 and 0.072 cm^{-1}/atm by m = 50. Air-broadening and shift parameters have also been calculated from the N_2 and O_2 measurements. The results show good consistency with previous measurements for the ν_1 and $2\nu_3$ bands but a slight deviation at high m from the coefficients for the ν_3 band reported in the GEISA and HITRAN databases.