

Species Tag:	65001	Name:	S-33-O2
Version:	1		Sulfur dioxide
Date:	Nov. 1996		³³ S isotope
Contributor:	H. S. P. Müller		

Lines Listed:	19048	Q(300.0)=	23881.212
Freq. (GHz) <	3451	Q(225.0)=	15501.797
Max. J:	78	Q(150.0)=	8433.669
LOGSTR0=	-8.0	Q(75.00)=	2982.020
LOGSTR1=	-6.5	Q(37.50)=	1055.834
Isotope Corr.:	-2.125	Q(18.75)=	374.621
Egy. (cm ⁻¹) >	0.0	Q(9.375)=	133.439
μ_a =		A=	59856.482
μ_b =	1.6331	B=	10318.296
μ_c =		C=	8780.138

These measurements are based on fits to the data from (1) the compilations of F. J. Lovas, 1978, J. Phys. Chem. Ref. Data **7**, 1445, and 1985, J. Phys. Chem. Ref. Data **14**, 395; and from (2) E. Klisch, P. Schilke, S. P. Belov, and G. Winnewisser, 1996, J. Mol. Spect. **186**, 314. Some higher distortion constants have been fixed to values of the ³²SO₂ isotopomer or an average of the ³²SO₂ and ³⁴SO₂ isotopomers. Predictions for high J ($> ca. 60$) or K_a ($> ca. 15$) quantum numbers should be taken with care.

Because sizable ³³S quadrupole splittings have been observed for moderately high values of J and K_a the predictions contain these hyperfine splittings for all transitions.

The dipole moment is assumed to be the same as for the ³²S isotope.