

Species Tag:	48007	Name:	O3-2v2
Version:	3		Ozone,
Date:	Nov. 2005		(020) or $2\nu_2$
Contributor:	B. J. Drouin		vibrational state
	H. M. Pickett		
Lines Listed:	3014	Q(300.0)=	3553.040
Freq. (GHz) <	5945	Q(225.0)=	2230.489
Max. J:	80	Q(150.0)=	1198.671
LOGSTR0=	-9.8	Q(75.00)=	423.448
LOGSTR1=	-10.0	Q(37.50)=	150.038
Isotope Corr.:	0.0	Q(18.75)=	53.297
Egy. ( $\text{cm}^{-1}$ ) >	1399.3	Q(9.375)=	19.037
$\mu_a =$		A=	109796.18
$\mu_b =$	0.5337	B=	13273.15
$\mu_c =$		C=	11694.07

The ozone spectrum was fitted using the microwave, millimeter, far-infrared, and infrared transitions given in H. M. Pickett *et al.*, 1988, J. Mol. Spect. **128**, 151. The dipole moment was assumed to be the same as for the ground state. Line strengths were calculated using Herman Wallis parameters fitted to match intensities from a model Hamiltonian in which the ground state and the three fundamentals were coupled with theoretical matrix elements, and infrared transition dipoles were allowed to mix with the permanent dipole. This treatment gives the correct perturbation of the rotational intensities due to centrifugal distortion. The partition function includes all vibrational states.