

Species Tag:	53002	Name:	Cl-37-O
Version:	3		Chlorine monoxide,
Date:	Jan. 1991		X $^2\Pi$ states, $v = 0$
Contributor:	E. A. Cohen		

Lines Listed:	2624	Q(300.0)=	3409.573
Freq. (GHz) <	3000	Q(225.0)=	2347.470
Max. J:	85	Q(150.0)=	1449.105
LOGSTR0=	-10.0	Q(75.00)=	700.971
LOGSTR1=	-11.5	Q(37.50)=	357.108
Isotope Corr.:	-0.611	Q(18.75)=	186.209
Egy. ( $\text{cm}^{-1}$ ) >	0.0	Q(9.375)=	101.135
$\mu_a =$	1.2974	A=	
$\mu_b =$		B=	18217.159
$\mu_c =$		C=	

The experimental lines are from R. K. Kakar, E. A. Cohen, and M. Geller, 1978, *J. Mol. Spect.* **70**, 243, and E. A. Cohen, H. M. Pickett, and M. Geller, 1984, *J. Mol. Spect.* **106**, 430. The millimeter and submillimeter data were combined with the FT infrared data of J. B. Burkholder *et al.*, 1987, *J. Mol. Spect.* **124**, 139, in a simultaneous fit to both vibrational states. The partition function is a sum over the ground and first vibrational state up to  $F = 90$  for both the  $\Omega = 3/2$  and  $\Omega = 1/2$  states. The dipole moment is from D. Yaron, K. Peterson, and W. Klemperer, 1988, *J. Chem. Phys.* **88**, 4702, and was assumed to be unchanged for  $^{37}\text{ClO}$ .