

Species Tag:	38002	Name:	c-C3H2
Version:	2		Cyclopropenyldiene,
Date:	Jan. 1996		X $^1\Sigma^+$,
Contributor:	J. C. Pearson		ground state, ν_6 , ν_5 ,
			ν_3 , and ν_2 states
Lines Listed:	30436	Q(300.0)=	13229.4772
Freq. (GHz) <	9999	Q(225.0)=	8368.2600
Max. J:	50	Q(150.0)=	4516.4097
LOGSTR0=	-8	Q(75.00)=	1597.8914
LOGSTR1=	-8	Q(37.50)=	566.8561
Isotope Corr.:		Q(18.75)=	201.8429
Egy. (cm^{-1}) >	0.0	Q(9.375)=	72.4029
μ_a =		A=	35092.6
μ_b =	3.43	B=	32212.8
μ_c =		C=	16749.1

The observed lines are from: P. Thaddeus, J. M. Vrtilik and C. A. Gottlieb, 1985, *Astrophys. J.* **299**, L63. M. Bogey, C. Demuynck and J. L. Destombes, 1986, *Chem. Phys. Lett.* **125**, 383. J. M. Vrtilik, C. A. Gottlieb and P. Thaddeus, 1987, *Astrophys. J.* **314**, 716. R. Mollaaghababa, C. A. Gottlieb, J. M. Vrtilik and P. Thaddeus, 1993, *J. Chem. Phys.* **99**, 890. Y. Hirahara, A. Masuda and K. Kawaguchi, 1991, *J. Chem. Phys.* **95**, 3975.

The vibrational quantum number 0 corresponds to the ground state, 1 to $\nu_6 = 1$ (Out-of-plane in phase CH bend), 2 to $\nu_5 = 1$ (Out-of-plane out of phase CH bend), 3 to $\nu_3 = 1$ (symmetric CC stretch + in-plane symmetric CC stretch), and 4 to $\nu_2 = 1$ (C=C stretch).

The dipole moment was measured by: H. Kanata, S. Yamamoto and S. Saito, 1987, *Chem. Phys. Lett.* **140**, 221.