

Species Tag:	73001	Name:	C6H
Version:	1		Linear C ₆ H radical,
Date:	Dec. 1994		X ² Π states
Contributor:	H. M. Pickett		

Lines Listed:	3031	Q(300.0)=	30789.8127
Freq. (GHz) <	825	Q(225.0)=	24332.8802
Max. J:	98	Q(150.0)=	16565.6319
LOGSTR0=	-10.0	Q(75.00)=	7871.6218
LOGSTR1=		Q(37.50)=	3519.7042
Isotope Corr.:	0.0	Q(18.75)=	1487.9395
Egy. (cm ⁻¹) >	0.0479	Q(9.375)=	626.7718
μ _a =	5.9	A=	
μ _b =		B=	1391.18
μ _c =		C=	

The laboratory measurements of the frequency are described in J. C. Pearson, C. A. Gottlieb, D. R. Woodward, and P. Thaddeus, 1988, *Astron. Astrophys.* **189**, L13-L15, and a list of the measured lines from this work was supplied by C. A. Gottlieb. These lines above 140 GHz were supplemented with interstellar measurements in TMC-1 at lower frequency from J. Cernicharo, M. Guelin, K. M. Menten, and C. M. Walmsley, 1987, *Astron. Astrophys.* **181**, L1-L4 and H. Suzuki, M. Ohishi, N. Kaifu, S. Ishikawa, T. Kasuga, S. Saito, and K. Kawaguchi, 1986, *Publ. Astron. Soc. Japan* **38**, 911-917. The spectra were fit using a Hund's case (b) Hamiltonian, but the quantum numbers were converted to case (a) quanta.

The dipole moment is from a quantum calculation of F. Pauzat and Y. Ellinger, 1989, *Astron. Astrophys.* **216**, 305-309.