

Species Tag:	38003	Name:	C3D
Version:	1		2-Propynyldiyne
Date:	Apr. 1995		deuterium isotope,
Contributor:	H. M. Pickett		ground $^2\Pi$ state
	M. L. Delitsky		and $\nu_4$ $^2\Sigma$ state
Lines Listed:	1560	Q(300.0)=	3579.9410
Freq. (GHz) <	2650	Q(225.0)=	2661.2498
Max. J:	60	Q(150.0)=	1736.0584
LOGSTR0=	-10.	Q(75.00)=	814.1121
LOGSTR1=	-100	Q(37.50)=	361.2093
Isotope Corr.:		Q(18.75)=	147.2941
Egy. ( $\text{cm}^{-1}$ ) >	0.0	Q(9.375)=	55.9382
$\mu_a$ =	3.10	A=	
$\mu_b$ =		B=	10097.38
$\mu_c$ =		C=	

The observed lines were measured by S. Yamamoto, S. Saito and M. Ohishi, 1990, *Astrophys. J.* **348**, 363. The dipole has been assumed to be the same as for the ground state.

The  $\nu_4 = 1$  state is only 119 GHz above the ground state and is strongly coupled with the ground state. The form of the interaction is given in J. T. Hougen, 1962, *J. Chem. Phys.* **36**, 519. The dipole moment for the  $\nu_4 = 1$  state is assumed to be the same as the ground state. There is a 0.5 Debye b-symmetry dipole moment between the ground state and  $\nu_4 = 1$ .