

Species Tag:	42008	Name:	CH2DCN
Version:	1		Acetonitrile,
Date:	December 2009		² H isotope
Contributor:	H.S.P.Müller		

Lines Listed:	3002	Q(300.0)=	9187.6884
Freq. (GHz) <	1511	Q(225.0)=	5965.9555
Max. J:	88	Q(150.0)=	3247.0623
LOGSTR0=	-7.0	Q(75.00)=	1148.5664
LOGSTR1=	-5.7	Q(37.50)=	406.7322
Isotope Corr.:	-3.821	Q(18.75)=	144.3104
Egy. (cm ⁻¹) >	0.0	Q(9.375)=	51.3918
μ_a =	3.9201	A=	121074.5
μ_b =	0.1735	B=	8759.2
μ_c =		C=	8608.5

This entry is a combined CDMS and JPL entry. The latest combined fit has been reported by (1) H. S. P. Müller; B. J. Drouin, and J. C. Pearson, 2009, *Astron. Astrophys.* 506, 1487. This work provides new data between 277 and 1197 GHz. Additional data were taken from (2) M. Le Guennec, G. Wlodarczak, J. Burie, and J. Demaison, 1992, *J. Mol. Spectrosc.* 154, 305; and three microwave lines from (3) L. F. Thomas, E. J. Sherrard, and J. Sheridan, 1955, *Trans. Faraday Soc.* 51, 619. The low symmetry of the molecule causes a small b -dipole moment component. Some of the corresponding transitions were observed in (2). However, predictions for $K_a = 2 - 1$ should be viewed with caution. All higher K_a b -type transitions have been omitted. The predictions for the remainder of the transitions should be quite reliable. Note: Spin-statistics do not matter for this low symmetry (C_s) isotopolog. The dipole moment has been derived from the main isotopolog, see d041001.cat, taking into account the rotation of the inertial axes. The magnitude of the b -component should be taken with some care.