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

Lines Listed: 3002
Freq. (GHz) < 1511
Max. J: 88
LOGSTR0= -7.0
LOGSTR1= -5.7
Isotope Corr.: -3.821
Egy. (cm\(^{-1}\)) > 0.0
\(\mu_a = 3.9201\)
\(\mu_b = 0.1735\)
\(\mu_c = \)  

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.