

Species Tag:	30003	Name:	DCO+
Version:	3		Formyl cation /
Date:	Mar. 2007		Oxomethylium,
Contributor:	B. J. Drouin		gs, v1,v2,v3
			Deuterium isotope
Lines Listed:	1041	Q(300.0)=	541.4248
Freq. (GHz) <	3561	Q(225.0)=	395.5155
Max. J:	40	Q(150.0)=	261.5694
LOGSTR0=	-10.0	Q(75.00)=	131.1793
LOGSTR1=	-8.0	Q(37.50)=	66.0922
Isotope Corr.:	-3.824	Q(18.75)=	33.5591
Egy. (cm^{-1}) >	0.0	Q(9.375)=	17.3082
μ_a =	3.888	A=	
μ_b =		B=	36019.76
μ_c =		C=	

The observed lines are from: R. C. Woods, R. J. Saykally, T. A. Dixon, P. G. Szanto, and T. Anderson, 1976, 31st Symposium on Molecular Spectroscopy, Columbus, Ohio. M. Bogey, C. Demuynck, and J. L. Destombes, 1981, Mol. Phys. **43**, 1043. K. V. L. N. Sastry, E. Herbst, and F. C. De Lucia, 1981, J. Chem. Phys. **75**, 4169, P. Caselli, and L. Dore, 2005, Astron. & Astroph. **433** 1145 and V. Lattanzi, A. Walters, B. J. Drouin and J.C. Pearson, 2007, Astroph. J. **662**. Infrared data from K. Kawaguchi, C. Yamada, S. Saito, E. Hirota, 1985, J. Chem. Phys. **82**, 1750, P.B. Davies & W.J. Rothwell 1984, J. Chem. Phys. **81**, 1598, and E.M. Gregersen, N. J. Evans II, S. Zhou and M. Choi, 1997, Astrophys. J. **484**, 256, was included in the analysis but not in the compilation. The dueterium hyperfine is based on the measurements of J. Schmid-Burgk, D. Muders, H.S.P. Mueller, B. Brupbacher-Gatehouse 2004, Astron. & Astroph. **419**, 949. The dipole moment was assumed to be the same as for the parent species.