

Species Tag:	4001	Name:	H2D+
Version:	2		
Date:	Jan. 2010		
Contributor:	B. J. Drouin		
Lines Listed:	32	Q(300.0)=	76.4529
Freq. (GHz) <	7550	Q(225.0)=	49.9615
Max. J:	5	Q(150.0)=	27.5467
LOGSTR0=	-7.2	Q(75.00)=	9.7322
LOGSTR1=	-3.4	Q(37.50)=	3.1037
Isotope Corr.:	-3.347	Q(18.75)=	1.2151
Egy. (cm ⁻¹) >	0.0	Q(9.375)=	1.0037
μ_a =	0.6	A=	1302323.7
μ_b =		B=	873563.25
μ_c =		C=	497767.19

The frequency fit included rotational lines measured by Saito *et al.*, 1985, J. Chem. Phys. **82**, 45; Amano and Hirao J. Molec. Spectrosc. 233, 7-15 (2005); Asvany et al. Phys. Rev. Lett. 100, 233004 (2008); and Yonezu et al. J. Molec. Spectrosc. 256, 238-241 (2009 Infrared combination differences from Polyansky & Tennyson, J. Chem. Phys. 110, 5056-5064 (1999). This entry follows the analysis of Yonezu et al. closely. The partition function was calculated by predicting up to J = 25, increasing the prediction beyond J = 25 did not alter the value at 300 K.