

Species Tag:	36004	Name:	HCl <sup>+</sup>
Version:	2		Chloroniumyl cation
Date:	Dec. 2016		v = 0,1
Contributors:	B. J. Drouin		
Lines Listed:	779	Q(300.0)=	196.9653
Freq. (GHz) <	7500	Q(225.0)=	147.6317
Max. J:	40	Q(150.0)=	102.4779
LOGSTR0=	-8.0	Q(75.00)=	59.9414
LOGSTR1=	-10.0	Q(37.50)=	40.3231
Isotope Corr.:	-0.122	Q(18.75)=	33.1500
Egy. (cm <sup>-1</sup> ) >	0.0	Q(9.375)=	31.9340
$\mu_a$ =	1.75	A=	
$\mu_b$ =		B=	293443.75
$\mu_c$ =		C=	

The work of H. Gupta, B. J. Drouin, & J. C. Pearson, 2012, ApJ, **751**, L38 and the optical spectra in W. D. Sheasley, 1972, Ph.D. Dissertation, The Ohio State University; Ann Arbor, MI. is expanded to include vibrational data from Doménech, Drouin, Cernicharo *et al.* ApJL 833 L32 (2016). The dipole moment ( $\mu_0$ ) was calculated by M. Cheng *et al.* 2007, Phys. Rev. A, **75**, 012502. The state identifiers v = 80 and v = 81 refer to the ground and first excited vibrational levels, respectively.