

Species Tag:	78001	Name:	AsH3
Version:	1		Arsine
Date:	Sept. 2012		
Contributor:	B.J.Drouin		
Lines Listed:	7802	Q(300.0)=	6138.3774
Freq. (GHz) <	6286	Q(225.0)=	3988.3455
Max. J:	28	Q(150.0)=	2174.8871
LOGSTR0=	-10.0	Q(75.00)=	774.8417
LOGSTR1=	-10.0	Q(37.50)=	278.6427
Isotope Corr.:	0.0	Q(18.75)=	102.0076
Egy. (cm ⁻¹) >	0.0	Q(9.375)=	38.6844
μ_a =	.000003938*	A=	B
μ_b =		B=	112470.59253
μ_c =	0.22	C=	104884.09003

*centrifugally induced

The measured lines are taken from:

D. Helms and W. Gordy, 1978, J. Mol. Spect. **69**, 473-481.

F. Y. Chu and T. Oka, 1974, J. Chem. Phys. **60**, 4612.

Burenin et al. JMS 94, 253-263 (1982)

Carlotti et al. JMS 102, 310-319, 1983

The Hamiltonian model of Carlotti et al. was implemented and was useful for fitting all of the data to near the reported uncertainties (reduced rms = 1.6) - this model uses only sextic distortion and the off-diagonal Coriolis type term allowed in three-fold symmetry molecules.

The dipole moment is from T. Oka, J. Phys. Soc. Japan IS, 2274 (1960) [By reference through Chu & Oka JCP 1974] The sign of the K = 3, 6, 9 levels represents the parity under inversion.