

Species Tag:	32002	Name:	O2-v1
Version:	5		Molecular oxygen, $^{16}\text{O}_2$
Date:	Oct. 2010		$X^3\Sigma_g^-, v = 1$
Contributor:	B.J. Drouin		

Lines Listed:	258	Q(300.0)=	218.675
Freq. (GHz) <	9817	Q(225.0)=	164.135
Max. J:	61	Q(150.0)=	109.597
LOGSTR0=	-34.7	Q(75.00)=	55.195
LOGSTR1=	-21.8	Q(37.50)=	28.035
Isotope Corr.:	0	Q(18.75)=	14.514
Egy. ( $\text{cm}^{-1}$ ) >	1556.4	Q(9.375)=	7.870
$\mu_a =$	magnetic	A=	
$\mu_b =$		B=	42626.96
$\mu_c =$		C=	

The calculations include those described for the ground state (Species 32001). The vibrational excited state,  $v = 1$ , is  $1556.38 \pm 0.01 \text{ cm}^{-1}$  above the ground state, data specific to this state include:

microwave/submillimeter

T. Amano and E. Hirota, *J. Mol. Spec.* 53, 346-363, 1974 Brown et al., *JMS* 151, 482 (1992) Endo & Mizushima, *Jpn J Appl Phys* 21, L379 (1982)

infrared/Raman

Rouille et al., *JMS* 154, 372 (1992)

Millot et al., *JMS* 176, 211 (1996)

Brodersen & Bendtsen, *JMS* 219, 248 (2003)