

Species Tag:	14002	Name:	N-atom
Version:	3		D-state
Date:	Dec. 1989		
Contributor:	H. M. Pickett		

Lines Listed:	6	Q(300.0)=	29.512
Freq. (GHz) <	262	Q(225.0)=	29.349
Max. J:	3	Q(150.0)=	29.034
LOGSTR0=	-48.2	Q(75.00)=	28.151
LOGSTR1=	-48.1	Q(37.50)=	26.583
Isotope Corr.:	0.0	Q(18.75)=	24.138
Egy. (cm ⁻¹) >	19223.0	Q(9.375)=	21.120
μ_a =		A=	
μ_b =		B=	
μ_c =		C=	

The $^2D_{5/2}$ state is $19,223 \text{ cm}^{-1}$ above the ground $^4S_{3/2}$ state (C. E. Moore, 1949, Atomic Energy Levels I, National Bureau of Standards). The $^2D_{3/2} - ^2D_{5/2}$ inverted fine structure transition at 261 GHz has been measured by M. Bogey *et al.*, 1989, *Astrophys. J.* **339**, L49. The average spontaneous emission rate from the 2D states to the 4S states is $1.06 \times 10^{-6} \text{ sec}^{-1}$. In contrast, the spontaneous emission rate from $^2D_{3/2} F = 5/2$ to $^2D_{5/2} F = 7/2$ is $3.15 \times 10^{-9} \text{ sec}^{-1}$.