Species Tag: 40003  Name: SiC
Version: 1  X $^3\Pi$, v = 0 state
Date: Dec. 1994
Contributor: H. M. Pickett

Lines Listed: 982  
Freq. (GHz) < 9999  
Max. J: 90  
LOGSTR0= -7.0  
LOGSTR1= -9.0  
Isotope Corr.: 0.0  
Egy. (cm$^{-1}$) > 0.0  
$\mu_a = 1.7$  
$\mu_b =$  
$\mu_c =$  

The millimeter lines are from J. Cernicharo, C. A. Gottlieb, M. Guelin, P. Thaddeus, and J. M. Vrtilek, 1989, Astrophys. J. Lett. Ed. 341, L25-28. The dipole moment is a theoretical one quoted in this reference. The partition functions are based on a sum of states for the ground and first vibrationally excited state. The spectra were fitted to a Hunds case (b) Hamiltonian. The correlation of states in case (b) with those for case (a) are:

\[
\begin{align*}
N = J & \quad \Omega = 0 \\
N = J + 1 & \quad \Omega = 1 \\
N = J - 1 & \quad \Omega = 2
\end{align*}
\]