

|                            |             |           |  |
|----------------------------|-------------|-----------|--|
| Species Tag:               | 8002        | Name:     | Li6D                                     |
| Version:                   | 2           |           | Lithium deuteride,                       |
| Date:                      | Jan. 2010   |           | <sup>6</sup> Li, <sup>2</sup> H isotopes |
| Contributor:               | B.J. Drouin |           | $\nu = 0, 1$                             |
| Lines Listed:              | 80          | Q(300.0)= | 28.137                                   |
| Freq. (GHz) <              | 9848        | Q(225.0)= | 21.127                                   |
| Max. J:                    | 40          | Q(150.0)= | 14.174                                   |
| LOGSTR0=                   | -20         | Q(75.00)= | 7.249                                    |
| LOGSTR1=                   | -100        | Q(37.50)= | 3.804                                    |
| Isotope Corr.:             | -1.13       | Q(18.75)= | 2.101                                    |
| Egy. (cm <sup>-1</sup> ) > | 0           | Q(9.375)= | 1.299                                    |
| $\mu_a =$                  | 5.882       | A=        |  |
| $\mu_b =$                  |             | B=        | 226633.2                                 |
| $\mu_c =$                  |             | C=        |  |

The line frequencies were taken from: Bellini, *et al.*, 1994, *Astrophys. J.* **424**, 507, and Plummer, Herbst and DeLucia, 1984, *J. Chem. Phys.* **81**, 4893, Maki, Olson and Thompson, 1990, *J. Mol. Spect.* **144**, 257, M. Dulick, K.-Q. Zhang, B. Guo, and P. F. Bernath *J. Molec. Spectrosc.* 188(1), 14-26 (1998). Five lines from Dulick et al. with large measured - calculated residuals were excluded from the analysis.

The dipole moment is from L. Warton, L. P. Gold and W. Klemperer, 1960, *J. Chem. Phys.* **33**, 1255. It has been assumed to be the same for all isotopomers.