\(\left.$$
\begin{array}{llll}\text { Species Tag: } & 34002 & \text { Name: } & \begin{array}{l}\text { H2-32-S } \\
\text { Version: }\end{array}
$$ \\

Hydrogen s\end{array}\right]\)| ${ }^{32}$ S isotope |
| :--- |

The experimental measurements were analyzed using the methods described in S . P. Belov et al., 1995, J. Mol. Spect. 173, 380. The Hamiltonian contains distortion constants up to tenth order. The measurements were taken from S. P. Belov et al., which includes measurements from P. Helminger, R. L. Cook, and F. C. De Lucia, 1972, J. Chem. Phys. 56, 4581, and P. Helminger, F. C. De Lucia, and W. H. Kirchhoff, 1973, J. Phys. Chem. Ref. Data 2, 213. Also included in the fit are FIR lines from K. M. T. Yamada and S. Klee, 1994, J. Mol. Spect. 166, 395. Wherever a line has been measured more than once, the one with the smaller uncertainty is listed. The highest $J$ and $K_{a}$ included in the fit are 16 and 13 respectively. The uncertainties of transitions beyond these values are only qualitative and should be taken with care. The dipole moment was reported by C. Huiszoon and A. Dymanus, 1965, Physica 31, 1049.

