These measurements are based on fits to the data of (1) P. A. Helminger and F. C. De Lucia, 1985, J. Mol. Spect. 111, 66; (2) the compilation of F. J. Lovas, 1985, J. Phys. Chem. Ref. Data 14, 395; (3) E. A. Alekseev, S. F. Dyubko, V. V. Ilyushin, and S. V. Podnos, 1996, J. Mol. Spect. 176, 316; and from (4) E. Klisch, S. P. Belov, and G. Winnewisser, private communication (1996). Some higher distortion constants have been fixed to values of the $^{32}$SO$_2$ isotopomer.

The dipole moment is assumed to be the same as for the $^{32}$S isotope.