

HYPERFINE STRUCTURE IN THE PURE ROTATIONAL SPECTRUM OF $^{208}\text{Pb}^{35}\text{Cl}$

CHRISTOPHER T. DEWBERRY, GARRY S. GRUBBS II, KERRY C. ETCHISON AND
STEPHEN A. COOKE, *DEPARTMENT OF CHEMISTRY, UNIVERSITY OF NORTH TEXAS, 1155
UNION CIRCLE #305070, DENTON, TX 76203-5017, U.S.A.*

Initially in our laboratory the pure rotational spectrum of the title molecule was studied using a Balle-Flygare Fourier transform microwave spectrometer. Analysis was troublesome and so the spectrum was remeasured using a chirped pulse Fourier transform microwave (CP-FTMW) spectrometer. The correct intensity aspect of the CP-FTMW experiment allowed successful quantum number assignments for the hyperfine structure for the correct isotopologue. Spectroscopic constants have been obtained from a fit to a data set consisting of our measurements combined with those of a prior study on the $X_2^2\Pi_{3/2} \rightarrow X_1^2\Pi_{1/2}$ fine structure transitions^a.

^aK. Ziebarth, K. D. Setzer, O. Shestakov and E. H. Fink *J. Mol. Spectrosc.* **191** 108, 1998.