

THE $\tilde{X} \leftarrow \tilde{A}$ SEP SPECTRA OF JET-COOLED THIOPHOSGENE

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The $\tilde{X} \leftarrow \tilde{A}$ stimulated emission pumping of SCCl_2 made over 100 new vibrational transitions accessible from 7000 – 8000 cm^{-1} above the \tilde{X} state zero point energy.^a We report anharmonic constants that fit all the 482 currently assigned vibrational energy levels. A spectral autocorrelation analysis shows that the onset of free energy flow has not been reached at 8000 cm^{-1} , in accordance with higher energy \tilde{B} state SEP data and a theoretical analysis. The available experimental data and computational results are both compatible with less fragmentation among the observable interior states of SCCl_2 .

^aP. D. Chowdary, B. Strickler, S. Lee and M. Gruebele, *Chem. Phys. Lett.* 434, 182 (2007).