OPTICAL-OPTICAL DOUBLE RESONANCE SPECTROSCOPY OF THE PREDISSOCIATED, QUASILINEAR B^1A' STATE OF CHF

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We have recently observed transitions to the predissociated, quasilinear B^1A' state of CHF using a fluorescence dip detected optical-optical double resonance technique.[a] By exciting selected rovibronic states in intermediate A^1A'' levels belonging to the progressions 2_0^n, $1_0^1 2_0^n$, and $2_0^n 3_0^1$, a variety of B^1A' state levels were observed, extending to an energy of 7000 cm^{-1} above the B^1A' state origin. In this talk, we will focus on the spectroscopy of the B^1A' state and the excited state barrier to linearity. Experimental data will be compared with $ab\ initio$ predictions.

[a] C. Tao, S. A. Reid, T. W. Schmidt, and S. H. Kable, J. Chem. Phys. 125, 051105 (2007).