

STUDIES OF 4-CHLORO-2-FLUOROANISOLE BY TWO-COLOR RESONANT TWO-PHOTON MASS-ANALYZED THRESHOLD IONIZATION SPECTROSCOPY

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We applied the two-color resonant two-photon mass analyzed threshold ionization technique to record the cation spectra of 4-chloro-2-fluoroanisole by ionizing via five intermediate vibronic levels. The excitation and adiabatic ionization energies were determined to be 35 227, and 67 218 cm^{-1} , respectively. Spectral analysis and theoretical calculation suggest that the geometry of the aromatic ring of the neutral species in the S_1 state is non-planar, but that of the cation in the D_0 state is planar.