

THE LOW-LYING BENDING VIBRONIC BANDS OF THE MgNC  $\tilde{A}^2\Pi - \tilde{X}^2\Sigma^+$  TRANSITION: ANALYSIS OF THE RENNER-TELLER VIBRONIC STRUCTURE

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We have generated MgNC in supersonic free jet expansions, and measured the laser induced fluorescence excitation spectra of the Mg-N-C bending vibronic bands of the  $\tilde{A}^2\Pi - \tilde{X}^2\Sigma^+$  transition. We analyzed  $2_0^1, \kappa^2\Sigma^{(+)}$  – and  $2_0^2, \kappa^2\Pi - ^2\Sigma^+$  bands and  $2_0^2, \mu^2\Pi_{\frac{1}{2}} - ^2\Sigma^+$  sub-band. Through the molecular constants of the  $\tilde{A}^2\Pi$  (010)  $\kappa^2\Sigma^{(+)}$ , (020)  $\kappa^2\Pi$  and  $\mu^2\Pi_{\frac{1}{2}}$  levels, the Renner-Teller vibronic structure on the  $\nu_2$  bending mode in the  $\tilde{A}^2\Pi$  state has been characterized. To analyze the vibronic structure, we need to consider the anharmonic term.