FLUORESCENCE EXCITATION SPECTROSCOPY OF THE NH_2 A^2A_1- X^2B_1 SYSTEM IN THE REGION 290-430 NM

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The fluorescence excitation spectrum of the NH_2 $^2A_1$-$^2B_1$ system has been measured in the region from 290 to 430 nm under jet-cooled conditions using a pulsed discharge source. A total of fourteen bands involving the pure bending states (0,ν_2',0) were observed and analyzed, including ten bands not previously measured to our knowledge. The spectra are largely free from rotational perturbations at the low N values accessed in this experiment, and the molecular constants were obtained from a least squares fit to the determined spin-rovibronic term values. The derived constants are in good agreement with theoretical predictions incorporating the effects of orbital angular momentum on the spin-rotational fine structure.