ANALYSIS OF THE VIBRONIC BANDS IN THE EMISSION SPECTRUM OF *p*-FLUOROBENZYL RADICAL

SANG K. LEE, *Department of Chemistry, Pusan National University, Pusan 609-735, South Korea*; TERRY A. MILLER, *Laser Spectroscopy Facility, Department of Chemistry, The Ohio State University, Columbus, Ohio 43210*.

We have employed the technique of corona excited supersonic expansion to generate the jet cooled *p*-fluorobenzyl radical from *p*-fluorotoluene. The vibronic emission spectra of the *p*-fluorobenzyl radical has been recorded with a Fourier transform spectrometer. A full vibronic analysis of the spectra has been performed, allowing for unambiguous assignments of the ground state vibrational frequencies of the *p*-fluorobenzyl radical. In addition, we observed several weaker satellite sequence bands near each of the strong vibronic bands. The characteristics of the low-frequency sequence bands have been tested by varying the experimental conditions. The results of the vibronic analysis and a discussion of the satellite bands will be presented.