

VIBRONIC SPECTROSCOPY OF CHLOROBENZYL RADICALS IN THE VISIBLE REGION

SANG KUK LEE, SANG YOUL CHAE, *Department of Chemistry, Pusan National University, Pusan, 609-735, South Korea.*

The jet cooled chlorobenzyl radicals have been generated with a large amount of He carrier gas from chlorotoluenes using a modified Engelking-type nozzle in a corona excited supersonic expansion. The vibronic emission spectra of chlorobenzyl radicals have been recorded with a long-path monochromator in the visible region. The spectra exhibit well-resolved vibronic structure from which the vibrational mode frequencies in the ground electronic state have been accurately determined by comparing with those of ab initio calculation as well as those of LIF-DF spectra reported previously.