

RESONANCE ENHANCED MULTI-PHOTON IONIZATION AND UV-UV HOLE-BURNING SPECTROSCOPIC STUDIES OF JET-COOLED ACETANILIDE DERIVATIVES

CEOL JOO MOON and AHREUM MIN, AHREUM AHN, SEUNG JUN LEE, MYONG YONG CHOI, *Department of Chemistry (BK21), Gyeongsang National University, 501 Jinju Daero, Jinju 600-701, South Korea*; SEONG KEUN KIM, *Department of Chemistry and Biophysics & Biophysical Chemistry (WCU) Seoul National University, Seoul 151-747, South Korea*.

Conformational investigations and photochemistry of jet-cooled methacetine (MA) and phenacetine (PA) using one color resonant two-photon ionization (REMPI), UV-UV hole-burning and IR-dip spectroscopy are presented. MA and PA are derivatives of acetanilide, substituted by methoxyl, ethoxyl group in the para position of acetanilide, respectively. Moreover, we have investigated conformational information of the acetanilide derivatives (AAP, MA and PA)-water. In this work, we will present and discuss the solvent effects of the hydroxyl group of acetanilide derivatives in the excited state.