# UNUSUAL POWER DEPENDENT PEAK SPLITTING IN REMPI SPECTRUM

JUNGGIL KIM, JEAN SUN LIM, SANG KYU KIM, *Chemistry, Korea Advanced Institute of Science and Technology, Daejeon, Republic of Korea*.

Dynamic Stark effects, such as Autler-Townes splitting (ATS) and Electromagnetically induced transparency (EIT), has been known to happen in simple atoms or quantum confined systems so far. We have been observed similar power-dependent peak splitting of resonant two-photon ionization (R2PI) spectrum in a polyatomic molecule. In its R2PI spectrum, doublet structures start to appear even at a very weak nanosecond-laser field and show vibronic mode-specificity. Prominent isotope substitution effect indicates that this phenomenon comes from the excited state dynamics.