A CHIRPED-PULSE FOURIER TRANSFORM MICROWAVE SPECTROMETER COMBINED WITH A LASER ABLATION SOURCE

S. MATA, I. PENA, C. CABEZAS, J. C. LÓPEZ, J. L. ALONSO, *Grupo de Espectroscopía Molecular (GEM). Edificio Quifima. Laboratorios de Espectroscopía y Bioespectroscopía. Parque Científico. Universidad de Valladolid, 47011 Valladolid. (Spain)*; B. H. PATE, *Department of Chemistry, University of Virginia, Charlottesville. Virginia 22904 (USA).*

The design of a chirped-pulse Fourier transform microwave spectrometer CP-FTMW combined with a laser ablation LA source is presented. The spectrometer is capable of measuring the 6.5-18 GHz region. Rotational spectra of solid samples of proline (m.p. 228 $^{\circ}$ C) and alanine (m.p. 290 $^{\circ}$ C) vaporized by laser ablation has been recorded. Four low-energy conformers of proline and two in alanine have been detected. ^{13}C species of alanine in their natural abundance have been also observed. The performance of this spectrometer is compared to a LA-MB-FTMW spectrometer.