PROBING THE TAUTOMERISM OF HISTIDINE

C. BERMÚDEZ, C. CABEZAS, S. MATA, J. L. ALONSO, *Grupo de Espectroscopía Molecular (GEM), Edificio Quifima, Laboratorios de Espectroscopía y Bioespectroscopía, Parque Científico, Universidad de Valladolid, 47011 Valladolid, Spain*.

The rotational spectrum of histidine, showing a complex nuclear quadrupole interactions arising from three ^{14}N nuclei in non-equivalent positions have been resolved and completely analyzed. Solid samples (m.p. 290 °C) were vaporized by laser ablation and probed by Fourier transform microwave spectroscopy in a supersonic expansion. The experimental constants clearly lead to the unambiguous identification of the ε tautomer in the gas phase.