

A NUCLEOSIDE UNDER OBSERVATION IN THE GAS PHASE: A ROTATIONAL STUDY OF URIDINE

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The nucleoside of uridine has been placed in the gas phase by laser ablation and the most stable C2'-anti conformation characterized by broadband chirped pulse (CP-FTMW) and narrowband molecular beam Fourier transform microwave (LA-MB-FTMW) spectroscopies. The quadrupole hyperfine structure, originated by two ^{14}N nuclei, has been completely resolved. Intramolecular hydrogen bonds involving uracil and ribose moieties have been found to play an important role in the stabilization of the nucleoside.