

THE ROTATIONAL STUDY OF THE VITAMINE B6 FORM PYRIDOXINE

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Vitamin B6, like the rest of vitamins, is an important compound involved in numerous biological functions. Concretely, takes part in brain and nervous system health, in the metabolism of carbohydrates to produce energy and in the process of removing unwanted chemicals from our blood, among others. Vitamine B6 is found in a variety of forms, and here we present the rotational study of the pyridoxine form. Pyridoxine has been brought into gas-phase by means of laser ablation and probed by broadband LA-CP-FTMW microwave spectroscopy in the range 2-8 GHz. The presence of a methyl group in the structure offer us a nice internal rotation problem reflected in the spectrum, that together with the hyperfine structure due to the ^{14}N atom, makes this study very challenging. The high resolution of LA-MB-FTMW^a spectroscopy has been crucial to overcome this problematic.

^aC. Bermúdez, S. Mata, C. Cabezas and J. L. Alonso, *Angew. Chemie - Int. Ed.*, 2014, 53, 11015–11018.