

An NMR Study of Inversion Isomerism in 1-Oxa-10-azabicyclo[5,3,0]decanes

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ABSTRACT

The NMR spectra of title compds. I ($R_1, R_2 = H, Ph, CH_2OH, OEt, CO_2Me$; $R_3, R_4 = H, CO_2Me, CO_2Et$) showed the presence of two isomers of unequal populations at -40° . The major isomer is the trans conformer, which is in equil. with the cis conformer by a relatively slow nitrogen inversion process. The barriers to nitrogen inversion were detd. by NMR band shape anal. and were in the 53-56 kJ/mol-1 range

