

**An NMR study of the nitrogen inversion process in 1-oxa-11-azabicyclo[6.3.0]undecanes.**

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**Abstract**

The NMR spectra of several 1-oxa-11-azabicyclo[6,3,0]undecanes, with substituents at 2 and 3 positions, showed the presence of two isomers of unequal populations at -50°C. The major isomer is shown to be the trans conformer which is in equil. with a minor isomer (cis conformer) by a relatively slow nitrogen inversion process. The barriers to nitrogen inversion were detd. by the NMR band shape anal. and found to be in the range 53.5-57.4 kJ/mol. Syntheses of four new compds. are described.