

Cycloaddition reactions of 5,6-dihydro-1,3,2-oxazine 3-oxide and conformational analysis of the resultant bicyclic isoxazolidines

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ABSTRACT

The rate consts. for several addn. reactions of a heterocyclic nitron, 5,6-dihydro-1,3,2-oxazine 3-oxide (7), were detd. by a ^1H NMR technique. The heterocyclic nitron is as reactive as its carbocyclic counterparts. The nitron underwent regio- and stereo-selective cycloaddn. reaction with several alkenes to afford bicyclic isoxazolidines efficiently. The NMR studies showed that the isoxazolidines prefer the conformer with cis ring fusion having an equatorially oriented N lone pair capable of manifesting an endo anomeric effect.