

Synthesis and Cycloaddition Reactions of 2,3,4,5-Tetrahydropyrazine 1-Oxide.

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Abstract

The stereochem. and reactivity of the cycloaddn. reactions of a heterocyclic nitron, 2,3,4,5-tetrahydropyrazine 1-oxide, have been studied. The heterocyclic nitron is found to be more reactive than its carbocyclic counterpart. The nitron underwent regio- and stereoselective cycloaddn. reaction with several alkenes to afford bicyclic isoxazolidines efficiently. Barriers to nitrogen inversion in the cycloadducts have been detd.